Patent Granted - King Saud University (2017-2018-2019-2020-2021-2022- 2023)

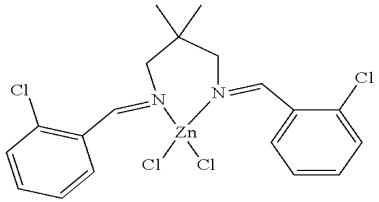
S.N.	Inventors Name	Patent No.	Issue Date	Title	Abstract	Patent Office	Patent Document
1.	MUHAMMAD KHURRAM KHAN WAZIR ZADA KHAN	11874752	16/1/2024	Methods and systems for facilitating cyber inspection of connected and autonomous electrical vehicles using smart charging stations	A method of facilitating cyber inspection of connected and autonomous electrical vehicles using smart charging stations. Accordingly, the method comprises receiving an information associated with a connected and autonomous electrical vehicle (CAEV) connected to a smart charging station, identifying an operation comprising a scanning operation based on the information, generating a request for facilitating the scanning operation comprising a cyber security threats scan, a cyber-attacks scan, an antivirus scan, an antimalware, an anti-ransomware, and a security scan, transmitting the request to a service provider device of a service provider comprising a cyber security provider, receiving a scanning operation information from the service provider device, performing the scanning operation on ECUs of the CAEV for facilitating the cyber inspection of the CAEV using the scanning information, generating a status of the CAEV based on the performing, transmitting the status to a device, and storing the status.	USPTO	US 11874752
2.	ABDULAZIZ SAUD FAKHOURI BANDAR RASHED ALNAFISAH THAMER NAJER ALOTAIB SAAD HAMDAN M. ALENEZI	11813198	14/11/2023	Circular capsulotomy incision tool	The first step for removal of cataracts generally is a capsulotomy–the removal of the anterior capsule of the eye lens. The circular capsulotomy incision tool provides a device that produces sharper cuts, with precise measurements, in an economical, reliable form without the need for complicated or expensive equipment, or extensive surgeon training or skill. The tool uses a resilient ring with a sharp cutting edge. The ring is collapsed, put in place through a corneal incision, and the original circular shape is allowed to return. The device uses a pulley mechanism to rotate the ring, enabling the cutting edge to reliably create a precisely edged capsulotomy.	USPTO	US 11813198
3.	HESSAH ABDULLAH M. ALHUWAISH ABDULLAH MOHAMMAD ALDREES	11813133	14/11/2023	Tool for measuring inclination of maxillary incisors	A tool for measuring the inclination of maxillary incisors can accurately quantify the clinical inclination of the maxillary incisors relative to a true horizontal reference plane before and during dental treatment. The tool includes a stationary base and a measuring arm pivotably connected to the base. The base includes a main window defined therethrough and a spirit level. The movable arm includes a protractor, a sleeve connected to the protractor, and a sliding sheet slidably received within the sleeve. An adjustable incisor guide at a measuring end of the sliding sheet includes an incisor ledge for receiving an incisor edge during measurement. The spirit level can be used to align the base with the true horizontal plane and the movable arm can be raised until the incisor ledge contacts the incisor edge and the sliding sheet contacts the facial surface of the maxillary incisor.	USPTO	US 11813133
4.	HUSAIN ABBAS MOHAMMAD ALRUBAIDI YOUSEF A. AL-SALLOUM	11773593	3/10/2023	Shear beam-column connection	A shear beam-column connection includes a first beam, a first tapered bolt having a non-threaded portion and a threaded end portion, and a column including a first wedge slot block. The non-threaded portion of the first tapered bolt is fixedly secured, e.g., by welding, to the first beam. The wedge slot block includes a cavity for removably receiving the non-threaded portion of the first tapered bolt. The first wedge slot block is fixedly secured to the column, e.g., by welding. The first beam can be secured to the column by positioning the first beam adjacent the column such that the non-threaded portion of the bolt is inserted into the cavity. A nut can be threaded to the free end of the bolt to further secure the beam to the column.	USPTO	US 11773593
5.	NIZAR ABDULLAH ALGARNI	11812997	14/11/2023	System and method for treating early onset scoliosis	The device for treating early onset scoliosis includes first and second tubes having first and second rods slidably disposed therein. The first tube is adapted for fixation to at least one middle vertebra of a patient's spine such that an open end thereof faces upward and a closed end thereof faces downward. The second tube is also adapted for fixation to at least one middle vertebra such that an open end thereof faces downward and a closed end thereof faces upward. A lower end of the first rod is positioned within the first tube and is resiliently biased. An upper end of the first rod is adapted for fixation to at least one upper vertebra. An upper end of the second rod is positioned within the second tube and is resiliently biased. A lower end of the second rod is adapted for fixation to at least one lower vertebra.	USPTO	US 11812997
6.	MUHAMMAD KHURRAM KHAN SAIYED UMER RANJEET KUMAR	11762969	19/9/2023	Systems and methods for facilitating biometric recognition	The present disclosure provides a method for facilitating biometric recognition. Further, the method includes receiving, using a communication device, a biometric data from a user device. Further, the biometric data includes an eyeball image data. Further, the eyeball image data includes a periocular region image and an iris image. Further, the method includes processing, using a processing device, the biometric data using a machine learning model. Further, the method includes determining, using the processing device, an iris feature based on the processing. Further, the method includes determining, using the processing device, a periocular feature based on the processing. Further, the method includes concatenating, using the processing device, the iris feature and the periocular feature. Further, the method includes	USPTO	US 11762969

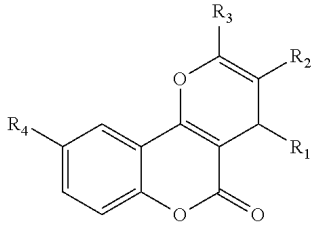
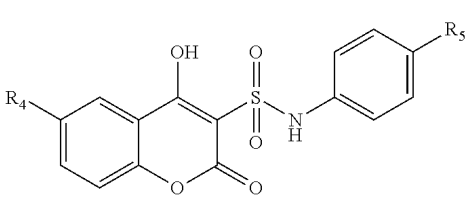
					generating, using the processing device, an enrolled image data based on the concatenating. Further, the method includes storing, using a storage device, the enrolled image data in a database.		
7.	MAHA FAHAD ALGABBANI ASMA SAAD ALRUSHUD RAWAN FAISAL ALGHAMDI RAHAF HAMAD ALRAJHI AYSHAH ABDULLAH ALDOSARI EBTESAM NASSER ALQHTANEY RANYM IBRAHIM ALAWAJI HALA RASHED ALRASHED	11730247	22/8/2023	Combination hair band and comb	The combination hair band and comb assists people with activities of daily living (ADLs). The combination hair band and comb includes an elongate fabric hair band having a series of small internal combs that assist the user in combing/brushing their hair. A first end of the band is attached to one end of a spring clip, and the opposite second end of the band passes through a hole at the other end of the spring clip. In use, the hair band is tightened by pulling the distal end of the band through the hole in the spring clip. The spring clip is then fastened to maintain the band in the desired position. The internal plastic combs extend through an internal slit in the band and comb the hair as the band is pulled rearward through the user's hair, by the user grasping and pulling the distal end of the band.	USPTO	US 11730247
8.	Ali Aldalbahi Bushra Ibarahim Alabdullah Manal Ahmed Gasmelseed Awad Shaykha Mohammed Alzahly Zainah Ali Alqahtani Shorouq Mohsen Alsaggaf Hessa Abdullah Aljasser Hind Ali Abdullah Alshehri	11643334	9/5/2023	Copper oxide nanoparticles synthesized using Rhatany root extract	The copper oxide nanoparticles synthesized using Rhatany root extract involves preparing the Rhatany root extract by adding powdered Rhatany roots to boiling water, allowing the mixture to soak overnight, and removing any solid residue by filtering to obtain the aqueous extract. The copper oxide nanoparticles are prepared by mixing equal volumes of the aqueous Rhatany root extract and 0.1 M aqueous copper sulfate, heating the mixture at 80° C. for 40 minutes, and adding 1 M sodium hydroxide dropwise to the mixture to precipitate CuO. The precipitate is removed by centrifuge, washed with ethanol, dried, and calcined at 400° C. for 4 hours to obtain the copper oxide nanoparticles. The resulting nanoparticles proved effective in degrading wastewater dyes, showed anticancer activity against human cervical cancer by cell viability assay, and showed antibacterial activity against various strains of bacteria by agar diffusion.	USPTO	US 11643334
9.	Ali Aldalbahi Raneem Aldawish Manal Ahmed Gasmelseed Awad Noura Saleem Aldosari Reem Hamad Alshathri Leen Abdullah Aldwihi Raghad Alammari Khloud Ibrahim Bin Shoqiran	11718537	8/8/2023	Synthesis of copper oxide nanoparticles	A method of synthesizing copper oxide nanoparticles includes preparing a liquid extract of Rumex vesicarius, dissolving copper salt in the liquid extract to provide a solution with copper nanoparticles, adding a base to the solution with copper nanoparticles to form a precipitate including copper oxide nanoparticles. Copper oxide nanoparticles prepared according to the method are effective photocatalysts for degrading organic dyes and antibacterial agents and exhibit anticancer activities.	USPTO	US 11718537
10.	Salah Ud-Din Khan Sajjad HAIDER Usma Ali Rana	11621095	4/4/203	Method for developing radiation shielding compositions	A computational method for development of radiation shielding compositions, as described herein, can include selecting at least one polymer and at least one metal for each of a plurality of radiation shielding compositions, selecting a polymer:metal ratio for each composition, performing computational analysis to calculate an attenuation coefficient associated with a given radiation dose for each composition, identifying a best candidate composition for radiation shielding based on the calculated attenuation coefficients, and preparing a radiation shielding material including the at least one polymer, the at least one metal, and the polymer metal ratio associated with the best candidate composition.	USPTO	US 11621095
11.	Hourya Sanat M. Al Nofaie	11617631	4/4/203	Surgical guide tool for single dental implant positioning	The surgical guide tool for single dental implant positioning includes an adjustable U-shaped frame having an inner member and an outer member. The inner member of the frame includes a first arm and a second arm that extends normal to the first arm. The outer member of the frame includes a first arm and a second arm that extends normal to the first arm. The first arm of the outer member includes an inner cavity for slidably receiving the first arm of the inner member. The first arm of the inner member can be moved within the cavity to adjust the size of the frame. A ring, attached to the second arm of the inner member, includes a circular wall with a central aperture extending therethrough. The central aperture is configured for receiving a drill bit therethrough for properly positioning the drill bit on the jawbone.	USPTO	US 11617631
12.	Taieb Aouak Mohamed Ouladsmane Ahmed Yacine Badjah Hadj Ahmed Zeid Abdullah Alothman	11617989	4/4/2023	Extraction of benzene from benzene/cyclohexane mixture	The extraction of benzene from benzene/cyclohexane mixture described herein is a process that removes benzene from a benzene/cyclohexane mixture with high selectivity, resulting in an enriched cyclohexane content in the retentate. The process involves adding an aqueous solution of poloxamer 188 to the benzene/cyclohexane mixture and waiting for the mixture to partition into an organic layer above an aqueous layer. Benzene, being more polar than cyclohexane, is selectively drawn into the aqueous layer. Benzene is then removed from the aqueous layer by pervaporation through a composite PDMS (polydimethylsiloxane)/polystyrene membrane. Cyclohexane is recovered from the retentate by drawing off the organic layer of the retentate by any known method. About 97% of benzene has been removed from a 50-50 wt % mixture by pervaporation in the static mode, and about 99% by pervaporation in the continuous mode.	USPTO	US 11617989

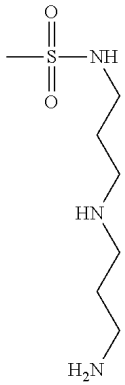
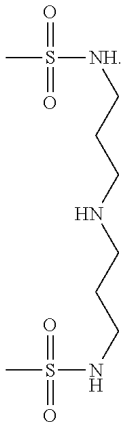
13.	Mu Naushad Tansir Ahamad Ayoub Abdullah Alqadami Ayman Abdelghafar Ahmed Zeid Abdullah Alothman	11618004	4/4/2023	Melamine-formaldehyde derived porous carbon adsorbent	A melamine-formaldehyde derived porous carbon adsorbent may be prepared from melamine-formaldehyde derived porous carbon disposable products. The melamine-formaldehyde derived porous carbon effectively removes organic pollutants from aqueous media. Parameters of contact time, solution pH, initial adsorbate concentration and desorption rate affect efficacy. Adsorption capacities of exemplary melamine-formaldehyde derived porous carbon for MG and MB dyes at 298 K were up to 25 mg/g and 35 mg/g, respectively.	USPTO	US 11618004
14.	Fahad Ibrahim Al-Jenoobi Mohd Aftab Alam Mohamed Hamed Al-Agamy	11617726	4/4/2023	Method for preventing, treating, or ameliorating a microbial infection	A method for preventing, treating, or ameliorating a microbial infection can include administering thymoquinone or a pharmaceutical composition comprising thymoquinone to a patient in need thereof. The patient may be suffering from a microbial infection caused by gram-negative bacteria, gram-positive bacteria, or fungi. The microbial infection may be caused by gram negative bacteria. The gram-negative bacteria may include Acinetobacter baumannii. The gram-negative bacteria may include Pseudomonas aeruginosa. The microbial infection may be caused by antimicrobial sensitive Acinetobacter baumannii or antimicrobial resistant Acinetobacter baumannii.	USPTO	US 11617726
15.	Manal Ahmed Gasmelseed Awad Promy Virk Mai Abdelrahman Elobeid Wagealla Sarah Saleh Abdulla Alsaif Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi Rabia Qindeel	11617719	4/4/2023	Moringa oleifera nanoparticles	The Moringa oleifera nanoparticles may be synthesized by harvesting Moringa leaves, drying the Moringa leaves, powdering the dried Moringa leaves, suspending the powdered Moringa leaves in a solution, and spraying the solution into boiling water under ultrasonic conditions to obtain Moringa nanoparticles. The Moringa nanoparticles may be encapsulated by dissolving the Moringa nanoparticles and gum olibanum in ethanol to produce a mixture, injecting the inert organic phase of the mixture into an aqueous solution containing PVA, and homogenizing the aqueous solution. The Moringa nanoparticles may be useful in preventing the growth of cancer cells and in treating diabetes by inhibiting α-glucosidase and/or α-amylase activity.	USPTO	US 11617719
16.	Nawaf Yousef I. Labban	11617636	4/4/2023	Dental shade matching background tool	The dental shade matching background tool has an elongate handle having a handgrip or finger-grip end and a dental shade guide attachment end. The dental shade guide attachment end has an upper surface defining a slot adapted for attaching the handle of a conventional dental shade guide to the tool, which snaps into or forms a friction fit in the slot. An offset neck slopes downward from the dental shade guide attachment end of the handle and has a background tab extending therefrom. The background tab has a face that is coated or covered with a neutral background color, such as gray. The background tab extends parallel to and beneath the tab of a dental shade guide retained in the slot at the dental shade guide attachment end of the handle.	USPTO	US 11617636
17.	Hessah Abdullah M. Alhuwaish Abdullah Mohammad Aldrees	11813133	14/11/2023	Tool for measuring inclination of maxillary incisors	A tool for measuring the inclination of maxillary incisors can accurately quantify the clinical inclination of the maxillary incisors relative to a true horizontal reference plane before and during dental treatment. The tool includes a stationary base and a measuring arm pivotably connected to the base. The base includes a main window defined therethrough and a spirit level. The movable arm includes a protractor, a sleeve connected to the protractor, and a sliding sheet slidably received within the sleeve. An adjustable incisor guide at a measuring end of the sliding sheet includes an incisor ledge for receiving an incisor edge during measurement. The spirit level can be used to align the base with the true horizontal plane and the movable arm can be raised until the incisor ledge contacts the incisor edge and the sliding sheet contacts the facial surface of the maxillary incisor.	USPTO	US 11813133
18.	Naiyf Sultan Helial Alaloi Alharbi Jamal Mohammed Ali Khaled Mohamed Salah El-Din Hodhud Shine Moosa Kadaikunnan Ahmed Saad Alobaidi	11806790	7/11/2023	Biosynthesis of metal nanoparticles	A method of preparing metal nanoparticles using a fungal extract includes providing an aqueous solution including a metal salt; and combining the fungal extract with the aqueous metal salt solution to produce the metal nanoparticles. The fungal extract can be an aqueous extract of the manglicolous fungi The metal salt can be copper sulfate ($CuSO_4$) and the metal nanoparticles can be copper nanoparticles. The metal nanoparticles can have a mean diameter in the range of from about 5 nm to about 100 nm. The copper nanoparticles can be used as an antimicrobial agent.	USPTO	US 11806790
19.	Maged N. Shaddad Prabhakarn Arunachalam Abdullah M. Almayouf	11807948	7/11/2023	Method of producing hydrogen peroxide using nanostructured bismuth oxide	The method of producing hydrogen peroxide using nanostructured bismuth oxide is an electrochemical process for producing hydrogen peroxide using a cathode formed as oxygen-deficient nanostructured bismuth oxide deposited as a film on the surface of a conducting substrate. An anode and the cathode are immersed in an alkaline solution saturated with oxygen in an electrolytic cell. An electrical potential is established across the cathode and the anode to initiate electrochemical reduction of the oxygen in the alkaline solution to produce hydrogen peroxide by oxygen reduction reaction.	USPTO	US 11807948

20.	Khawla Ibrahim Alsamhary Nagwa Mohamed Mohamed Amin Aref Adel Almogren	11779608	10/10/2023	Method of treating a bacterial infection using colostrum	The method of treating a bacterial infection using colostrum includes administering an effective amount of colostrum to a subject in need thereof. The infection can be caused by G+ or G− bacteria. The colostrum administered may be selected from the group consisting of bovine colostrum, camel colostrum, and a mixture of bovine colostrum and camel colostrum. The bacterial infection may be selected from the group consisting of Staphylococcus aureus subs. aureus Rosenbach, Escherichia coli, Pseudomonas aeruginosa, and Methicillin-resistant Staphylococcus aureus. A colostrum composition can include a mixture of bone and camel colostrum and a pharmaceutically acceptable carrier.	USPTO	US 11779608
21.	Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi	11694853	4/7/2023	Flexible solar panel	The flexible dye-sensitized solar panel with an organic chromophore is formed from an organic chromophore dye in a polymer matrix. The organic chromophore dye is extracted from chard (B. vulgaris subsp. cicla). The polymer matrix may be formed from either poly(vinyl alcohol) or polystyrene. The flexible dye-sensitized solar panel with an organic chromophore is made by preparing a solution of the selected polymer in the dye extracted from the B. vulgaris subsp. cicla. The solution is coated on a glass plate and dried to form a thin film. The thin flexible film is removed from the plate, forming the flexible dye-sensitized solar panel with an organic chromophore.	USPTO	US 11694853
22.	Mohammed Abdulaziz Al-Khamis	RE49532	16/5/2023	Method and apparatus for storing energy	An energy storing system, which includes a plurality of weights; a first storing unit and a second storing unit, wherein the first storing unit is arranged below the second storing unit and each of the storing units includes a guiding track on which weights can be placed and along which weights can be moved, wherein each of these guiding tracks includes a first portion and a second portion, wherein the second portion is arranged below the first portion; and a loading unit configured to lift at least one weight from the first storing unit to the second storing unit during a first period thereby converting electrical energy to potential energy.	USPTO	US RE49532
23.	Husain Abbas Nadeem A. Siddiqui Baha M. A. Khateeb Tarek H. Almusallam Yousef A. Al-Salloum	11639601	2/5/2023	System and method for connecting a square concrete-filled steel tubular column to a reinforced concrete footing	The system and method for connecting a square concrete-filled steel tubular column to a reinforced concrete footing includes a short steel pipe partially embedded in the footing, the pipe having a top end having flanges extending radially therefrom, the top end extending into a cavity in the footing having an elliptical top opening and circular base, the flanges extending above the base. An elliptical base plate is welded to the bottom of the tubular steel column, the base plate having a circular opening defined therein and a plurality of spaced flange slots depending therefrom. The bottom end of the column is lowered into the cavity, the elliptical base plate passing through the elliptical opening in the cavity, and the column is rotated 90° to interlock the flanges with the flange slots. The cavity is filled with concrete grout, and the square or rectangular steel column is filled with concrete.	USPTO	US 11639601
24.	Saeed Mohammed AL-ZAHRANI Arfat Anis Ranjan Kumar Dwari	11638923	2/5/2023	Flotation reagents from acidic olive oil	The flotation reagents from acidic olive oil are made by transesterification of acidic olive oil. Acidic olive oil is olive oil having an acid value high enough to render it unsuitable for consumption, typically greater than 3.3% and/or between 3.3-7%. Transesterification of the olive oil with methanol converts fatty acids in the olive oil to an ester fraction and a glycerol fraction. The ester fraction may be sulfonated and used as the collector in a reverse flotation process, selectively removing the carbonate gangue from phosphate-carbonate rock in the froth, leaving phosphates in the sink. The glycerol fraction may be used without modification as the collector in the reverse flotation process. Both fractions are highly selective for carbonates, substantially reducing loss of phosphates in the froth.	USPTO	US 11638923
25.	Mohamad Saleh Alsalhi Sandhanasamy Devanesan Rawan Ibrahim Salem Alkhalaf Hajer Saad Abdullah Allayed Nasser Raqe Rashed Alqhtani Mohammed Ghazi Alkindi Osama Ghurmullah Mohammed Alghamdi	11696925	11/7/2023	Calcium hydroxide nanoparticles synthesized with carob pulp extract	hexagonal nanoparticles with a diameter ranging from about 31.22 nm to about 81.22 nm. The Ca(OH)2NPs may be synthesized by heating ethylene glycol, adding calcium hydroxide to the ethylene glycol to provide a first mixture, heating the first mixture, adding a carob pulp aqueous extract to the first mixture to form a second mixture, heating the second mixture, adding sodium hydroxide (NaOH) to the second mixture to form a third mixture, heating the third mixture, resting the third mixture at room temperature after heating, centrifuging the third mixture, collecting a colloid sediment, extracting any unwanted contaminants from the colloid sediment, and drying the colloid sediment to obtain Ca(OH)2NPs.	USPTO	US 11696925
26.	Mohd Aftab Alam Fahad Ibrahim Al-Jenoobi Abdullah M. Al-Mohizea	13146	22/6/2023	MEASURING CUP	The measuring cup includes numerous embodiments configured for a user to precisely determine the cup contents without need to lift the cup to one's eye level or to lower the eye level to the level of the cup contents. The various embodiments include folding cups; cups having transparent passages in the wall; cups having adjustably positionable bottoms; cups having level indicator rods in the cup interior extending upward from the cup bottom; cups having one or more filaments extending across the cup interior; cups having rigid level indicators spanning the cup interior; cups having adjustably positionable level indicator tabs therein; cups having buoyant level indicator tabs adjustably positionable in the cup interior; and cups having removable clip-on scales extending down along the interior of the cup wall, the scales having a plurality of attachment points for the removable attachment of a level indicator tab at a desired attachment point	SAIP	SA 13146
27.		10883868	5/1/2021			USPTO	US 10883868
28.		12406	30/4/2023			GCPO	GCC 0012406
29.	Shafia Abdullah Alqahtani	10729850	4/8/2020	Modular dental material dispenser	A modular dental material dispenser can include multiple stackable, modular components, each having a syringe extending therethrough. The syringe of each component may include a detachable nozzle attachment to assist in efficiently dispensing the materials contained therein. Two or more modular components may be connected to provide a dispenser capable of dispensing multiple materials using different dispensing nozzles.	USPTO	US 10729850
30.		13020	8/6/2023			SAIP	SA 13020

31.	Ayman Hassan Al-Jazaeri Amro Fayez Al-Habib	10426634	1/10/2019	Expandable Intervertebral Cage	The expandable intervertebral cage includes an upper block and a lower block movable relative to each other. The lower block defines a cam surface and the upper block defines a cam follower surface. Linkages connecting the upper and lower blocks maintain contact between the cam and cam follower surfaces. By rotating a screw, which extends through the lower block, the cam follower surface of the upper block is pushed along the cam surface of the lower block, thus resulting in vertical and horizontal displacement between the upper and lower blocks. Proximal and distal yokes in the blocks define protrusions in the cam and cam follower surfaces. When the cam follower surface slides along the cam surface, the protrusions cause vertical and angular displacement in the upper block, providing distraction, reduction, and lordosis of attached vertebra.	USPTO	US 10426634
32.		13227	12/7/2023			SAIP	SA 13227
33.	Thamer Ali Albahkali Hany Hassan Aly Sayed	10743700	18/8/2020	Curtain rod wall mount	The curtain rod wall mount is a fixture used in pairs to support opposing ends of a cylindrical curtain rod between opposing walls of a building or window frame. In a first embodiment, the wall mount includes a helical spring disposed between a fixed plug and a movable plug, the spring being coaxially disposed around a guide screw extending between the plugs, the spring assembly being housed in a tubular sleeve that an end of the curtain rod slides into to bear against the movable plug. A second embodiment is similar to the first, but omits the guide screw. In a third embodiment, the wall mount has a wall plate having a threaded stud extending therefrom. The tubular sleeve has a plug with an internally threaded bore in one end that engages the threaded stub, the other end being hollow to receive an end of the curtain rod.	USPTO	US 10743700
34.		13208	9/8=7/2023			SAIP	SA 13208
35.	Husain Abbas Tarek Almusallam Yousef Al-Salloum	10927548	23/2/2021	Fiber Elements for Soil Stabilization	The fiber elements for soil stabilization include a combination of rigid and flexible fibers that are adapted to be added to soil in order to stabilize the soil to improve the geotechnical characteristics thereof. Each fiber element includes a rigid fiber having opposed first and second ends, at least the first end defining a first ring. A plurality of flexible fibers are attached to the first ring. When mixed with soil, the rigid fibers provide stiffness to the soil mass, and the flexible fibers provide deformability. For purposes of packaging, prior to addition to soil, the plurality of flexible fibers may be at least partially secured to one another by a water soluble material, such as a water soluble glue, water soluble thread or the like. A plurality of the fiber elements may be secured to one another by the water soluble material, forming a fiber module.	USPTO	US 10927548
36.		13207	9/7/2023			SAIP	SA 13207
37.	Safa Mohammed Alrashed Sara Mohammed Al-Taweel	10799319	13/10/2023	Tooth Tapering Control Guide	A tooth tapering control guide can be used to create an accurate and consistent taper angle for a target tooth. The guide includes a telescoping member which may be secured to a tooth that is adjacent to the target tooth. The telescoping member includes an upper rod and a lower rod that are telescopically connected. The upper rod of the telescoping member is generally L-shaped, including a vertical portion and a horizontal portion that extends normal to the vertical portion. The horizontal portion includes a rectangular slot along its lower surface and a clasp rod that is slidable within the slot. The vertical portion telescopically receives the lower rod. The clasp rod includes a clasp at a lower end that is attachable to a drill. Once the drill clasp is secured to the drill, the drill bit can be maintained at a constant angle (e.g., 90 degrees) with respect to the target tooth.Images (5)	USPTO	US 10799319
38.		13125	20/6/2023			SAIP	SA 13125
39.	Ali Kanakhir Aldalbahi Manal Ahmed Gasmelseed Awad Khalid Mustafa Osman Ortashi Shaykha Mohammed Alzahly	10689257	23/6/2020	Bio buckypaper synthesized with fish scales	A bio buckypaper synthesized with fish scales may be manufactured by mixing carrageenan with a bio waste solution to provide a first mixture, adding carbon nanotubes to the first mixture produce a second mixture, sonicating the second mixture, and evaporative-casting the second mixture to produce the bio buckypaper. In an embodiment, the carrageenan may be τ-carrageenan. In an embodiment, the carbon nanotubes may be single walled carbon nanotubes (SWCNTs) or multi-walled carbon nanotubes (MWCNTs). In an embodiment, the bio waste solution may be derived from fish scales.	USPTO	US 10689257
40.		12987	6/6/2023			SAIP	SA 12987
41.	Atif Ahmed Saleh Alghamdi	10406048	10/9/2019	Dental Chair Attachment for Supporting Wheelchairs	The dental chair attachment for supporting wheelchairs attaches to the back of a dental chair and reclines a wheelchair when the dental chair is reclined. The wheels of the wheelchair are rolled onto wheel ramps on opposing sides of a back support. Two upper clamps attach the dental chair attachment to the top of the dental chair, and two lower clamps attach the wheelchair to the dental chair attachment. When reclining the dental chair, wheels on the bottom of the back support allow the dental chair attachment to recline simultaneously with the chair by rolling in a direction opposite the dental chair.	USPTO	US 10406048
42.		13226	12/7/2023			SAIP	SA 13226
43.	Khaled Issa Muhammad Ahmed Ashraf Waleed Tariq Sethi Habib Fathallah Saleh Alshebeili	10483640	19/11/2019	Omnidirectional ultra-wideband antenna	The omnidirectional ultra-wideband antenna is a variant on a monocone antenna, particularly including a supplemental radiating element. The omnidirectional ultra-wideband antenna includes an electrically conductive conical surface having a vertex end and a base end, and a supplemental radiating element having a first portion and a second portion. The first portion extends from the base end of the electrically conductive conical surface, the first portion being positioned between the base end of the electrically conductive conical surface and the second portion. The vertex end of the electrically conductive conical surface is positioned adjacent to, and spaced apart from, a first surface of a ground plane plate. At least one electrically conductive rod is provided, a first end of the rod being secured to the second portion, and a second end of each rod being mounted on the first surface of the ground plane plate.	USPTO	US 10483640
44.		13209	29/7/2023			SAIP	SA 13209
45.	Abdulmonem Alsiddiky Raheef Mohamed Alatassi	10729577	4/8/2020	Hip Spica Cast Application Device	A hip spica cast application device for holding a patient's legs in a desired position while a spica cast is applied. The device includes an adjustable vertical post extending out of a base. Two extendable arms are pivotally attached to the top of the post. Each arm has a "U"-shaped leg holder at one end to receive and support a patient's thigh. A platform extends from a top of the vertical post for engagement with a table, such as a surgical table. During a hip spica casting procedure, the post length, arm length, and arm angles can be adjusted and locked in place to support and maintain the patient's legs at a desired position.	USPTO	US 10729577
46.		13119	20/6/2023			SAIP	SA 13119
47.	Hany Mohamed Yehia Manal Ahmed Gasmelseed Awad Mohamed Fekry Serag El-Din Hatem Salama Mohamed Ali Reem Atta Alajmi Dina Mahmoud Metwally Hasanin Wafa Abdullah Al-Megrin Manal Fawzy Elkhadragy	10898533	26/1/2021	Mangosteen Nanoparticles	Mangosteen nanoparticles and methods of synthesizing Mangosteen nanoparticles are provided. The Mangosteen nanoparticles may be synthesized by drying Mangosteen, Garcinia mangostana fruit, grinding the dried Mangosteen to form powdered Mangosteen, suspending the powdered Mangosteen in a solvent to form a first Mangosteen solution, spraying the Mangosteen solution into boiling water under ultrasonic conditions to form a second Mangosteen solution, resting the second Mangosteen solution at room temperature (about 20° C.), and freeze-drying the second Mangosteen solution to obtain Mangosteen nanoparticles. The drying step may include either air-drying or freeze-drying the Mangosteen. The Mangosteen fruit peel may be used in the drying step instead of the inner Mangosteen fruit. The	USPTO	US 10898533
48.		12689	15/3/2023			SAIP	SA 12689

					resulting nanoparticles may be used in pharmaceutical compositions, and may be useful for their antioxidant and antibacterial activities.		
49.	Njood Fahad Abdullah Alazzam	10842593	24/11/2020	Sulcular guard and method of use	A sulcular guard can be placed into the gingival sulculus surrounding a tooth to collect excess cement resulting from a replacement crown cementation procedure. The semi-rigid sulcular guard can have a generally "U" shaped cross-section with a central recess configured for collecting and containing the cement. Prior to cementing a crown on a prepared tooth, the guard may be inserted into the gingival sulculus surrounding the tooth. When the crown is pressed onto the tooth, excess cement, which is forced out from the bottom of the crown, can be collected and contained within the recess. Upon completion of the cementation, the guard, and all cement contained therein, may be removed leaving the gingival sulculus free of cement.	USPTO	US 20843593
50.		11992	15/1/2023			SAIP	SA 11992
51.	Abdullah M. Al-Enizi Tansir Ahamad Ayman Yousef	10456776	29/10/2019	Method of Fabricating a Photocatalyst for Water Splitting	The method of fabricating a photocatalyst for water splitting includes electrospinning a Zn-based solution mixed with CdS nanoparticles and then calcining to produce CdS nanoparticle decorated ZnO nanofibers having significant photocatalytic activity for water splitting reactions. The photocatalyst fabricated according to the method can produce H2 at a rate of 820 μmolh−1g−1 catalyst from aqueous solution under light irradiation.	USPTO	US 10456776
52.		11991	15/1/2023			SAIP	SA 11991
53.	Agata Trzesowska-Kruszynska Faiyaz Shakeel Rafal Kruszynski Saud Ibrahim Al-Resayes Mohammad Azam	10 44 748	4/12/2018	Anti-inflammatory zinc(II) complex	The anti-inflammatory zinc(II) complex, viz., crystalline bis(chloro)-(N,N′-(2,2-dimethylpropane-1,3-diyl)bis(1-(2-chlorophenyl)-methanimine))-zinc zinc(II) complex, may be used as an anti-inflammatory. The compound has the formula:  This complex is prepared by reaction of a Schiff base, namely, N,N′-bis(2-chlorobenzylidene)-2,2-dimethylpropane-1,3-diamine, with zinc chloride in alcohol to form a precipitate, which is removed by filtration, followed by slow evaporation of the filtrate to obtain the crystalline product. In vivo testing showed that the above zinc(II) complex exhibited good anti-inflammatory effect. It is thought that the present zinc-based anti-inflammatory avoids the gastrointestinal side effects of conventional NSAIDs due to the coordinated zinc complex.	USPTO	US 10144 748
54.		12026	17/1/2023			SAIP	SA 12026
55.	Ali Abdullah Alshatwi Jegan Athinarayanan Vaiyapuri Subbarayan Periasamy	10925827	23/2/2021	Lignin-zinc oxide nanohybrid emulsion for UV protection	A lignin-zinc oxide nanohybrid may be formed by sonication of isolated lignin derived from Phoenix dactylifera biomass in an aqueous solution of a soluble zinc salt. The lignin-zinc oxide nanohybrid emulsion or nanoemulsion may then be formed by mixing the lignin-zinc oxide nanohybrid with oil and a stabilizing surfactant and sonicating. The lignin-zinc oxide nanohybrid emulsion effectively bocks UV radiation across the UV spectrum and might therefore be used for UV protection as a sunscreen.	USPTO	US 10925827
56.		12002	15/1/2023			SAIP	SA 12002
57.	Mohamed Ramy Abdel-Rahman Mohammad Abdulaziz Alduraibi Bouraoui Ilahi	10648865	12/5/2020	Thermal sensing layer for microbolometer and method of making the same	The thermal sensing layer for a microbolometer includes a Ge1-xSnx film layer, where 0.17≤x≤0.25. The Ge1-xSnx film layer may be deposited on a substrate layer, such as pure silicon. An additional layer of silicon dioxide may be added, such that the silicon dioxide layer is sandwiched between the silicon substrate and the Ge1-xSnx film. In order to make the Ge1-xSnx thin film layer, germanium (Ge) and tin (Sn) are simultaneously sputter deposited on the substrate, where the atomic ratio of germanium to tin is between 0.83:0.17 and 0.75:0.25 inclusive. The sputter deposition may occur in an argon atmosphere, with the germanium having a deposition rate of 9.776 nm/min, and with the tin having a deposition rate between 2.885 nm/min and 4.579 nm/min.	USPTO	US 10648865
58.		11951	10/1/2023			SAIP	SA 11951
59.	Abdel Fattah Sheta Wazie Mohammed Abdulkawi	10211498	19/2/2019	Reconfigurable resonators for chipless RFID applications	The reconfigurable resonators for chipless RFID applications provide spiral resonators for a multiple resonator passive RFID transponder tag. Each spiral resonator includes a U-shaped frame of conductive material and has a plurality (K−1) of parallel adjusting or shorting elements disposed between the legs of the U-shaped frame. Each resonator has one leg coupled to a transmission lin59adapted for connection between a receiving antenna and a transmitting antenna (in some embodiments, a single antenna may be used for both receiving and transmitting), and one of the adjusting or shorting elements may be selectively connected to the opposing leg of the frame to configure the resonator to resonate at one of (K−1) different resonant frequencies (K frequencies if none of the elements are connected) by a short metal jumper strip to change the length of the spiral resonator.	USPTO	US 10211498
60.		12025	17/1/2023			SAIP	SA 12025
61.	Khalid Mustafa Ortashi Manal Ahmed Awad	10588929	17/3/2020	Method of synthesizing watermelon seed particles	The watermelon seed nanoparticles may be synthesized by dissolving powdered watermelon seeds in a solvent to produce a first mixture, adding the first mixture dropwise to boiling water under ultrasonic conditions to produce a second mixture, sonicating the second mixture and drying the second mixture to produce watermelon seed nanoparticles. In an embodiment, the watermelon seeds may be Citrullus lanatus seeds. In an embodiment, the watermelon seed nanoparticles may be included in a pharmaceutical composition, such as an antimicrobial or anti-cancer composition.	USPTO	US 10588929
62.		11950	10/1/2023			SAIP	SA 11950
63.	Md. Ashrafuzzaman	10916330	19/2/2021	Energy-based method for drug design	A method of designing aptamers includes building an aptamer by a seed-and-grow method optimizing screened coulomb interactions (SCI) and selecting aptamer length based on an aptamer target biological environment. Aptamers designed according to the method may comprise any DNA or RNA nucleotides. In particular, for example, aptamers may	USPTO	US 10916330

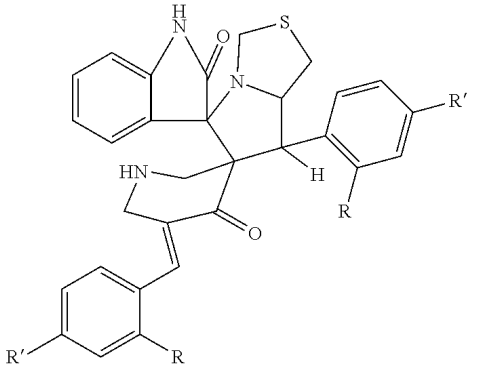
64.		12024	17/1/2023		be designed according to the method to target lipids that may be found in membranes, such as liposomes or micelles. The lipids may be phosphatidylserine (PS) or phosphatidylcholine (PC).	SAIP	SA 12024
65.	Hamad Abdulrahman Alzoman	10729426	4/8/2020	Suture needle retaining strap	The present subject matter provides a magnetic suture needle retaining strap to be worn by a surgeon during a surgery. The strap includes a band and a housing on an outer surface of the band. The housing includes an inner chamber, an opening leading into the chamber, and a magnet. The band may be placed around a palm of the surgeon's non-dominant hand. The housing provides a dock for retaining the suture needle while the surgeon is knotting the suture or performing other tasks that require use of both hands.	USPTO	US 10729426
66.		12021	17/1/2023			SAIP	SA 12021
67.	Adel Mohammed Al-Shayea Abdulaziz Mohammed El-Tamimi Mustufa Haider Abidi	10894274	19/1/2021	Fin and condenser coil cleaning device for air conditioner units	The fin and condenser coil cleaning device for air conditioner units is a cleaning device for cleaning the fins and condenser coils of window-mounted air conditioner units. A horizontal support is driven to selectively raise and lower with respect to the fins on the exterior portion of an air conditioner unit. The horizontal support carries nozzles for spraying water on the fins at sufficient pressure that the water passes through the fins and cleans the condenser coils contained within the housing of the air conditioner unit. A plurality of brushes are mounted on the horizontal support for brushing the fins as the horizontal support moves vertically with respect thereto. Sensors may be provided for controlling the direction of vertical movement of the horizontal support and for selectively actuating a motor and a pump for driving movement of the horizontal support and spraying the water through the nozzles.	USPTO	US10894274
68.		11995	15/3/2023			SAIP	SA 11995
69.	Naiyf Sultan Helial Alaloi Alharbi Jamal Mohammed Ali Khaled Mohamed Salah El-Din Hodhod Shine Moosa Kadaikunnan Ahmed Saad Alobaidi	10590438	17/3/2020	Biosynthesis of metal nanoparticles	A method of preparing metal nanoparticles using a fungal extract includes providing an aqueous solution including a metal salt; and combining the fungal extract with the aqueous metal salt solution to produce the metal nanoparticles. The fungal extract can be an aqueous extract of the manglicolous fungi The metal salt can be copper sulfate (CuSO4) and the metal nanoparticles can be copper nanoparticles. The metal nanoparticles can have a mean diameter in the range of from about 5 nm to about 100 nm. The copper nanoparticles can be used as an antimicrobial agent.	USPTO	US 10590438
70.		12023	17/1/2023			SAIP	SA 12023
71.	Hanan M. Alshibl Ebtehal S. Al-Abdullah Mogedda E. Haiba	10730885	4/8/2020	Coumarin derivatives	oumarin derivatives are pyranocoumarins of formula 2 and coumarin-sulfonamides of formula 3, respectively, 2  3  wherein R1 is 4-NO2C6H4 or 2-Furyl; R2 is CN or CONH2; R3 is NH2, NCHN(CH3)2 or NCHR6; R4 is Cl or CH3; R5 is SO2NHR7, H, OH, COCH3 or COC2H2R8; R6 is C6H5, 3,4,5-(CH3O)3C6H2 or 2,4-Cl2C6H3; R7 is H, 1,3-thiazole, or 1,3-diazine and R8 is 4-O2NC6H4, 4-CH3OC6H4, or 4-ClC6H4; and pharmaceutically acceptable salts thereof. The coumarin derivatives and pharmaceutical compositions including one or more of such derivatives may by synthesized and used to treat or prevent inflammation or microbial infection, and to reduce levels of reactive oxidative species.	USPTO	US 10730885
72.		11894	3/1/2023			SAIP	SA 11894
73.	Husain Abbas Nadeem A. Siddiqui Baha M. A. Khateeb Tarek H. Almusallam Yousef A. Al-Salloum	10954662	23/3/0221	System and method for connecting a square concrete-filled steel tubular column to a reinforced concrete footing	The system and method for connecting a square concrete-filled steel tubular column to a reinforced concrete footing includes a short steel pipe partially embedded in the footing, the pipe having a top end having flanges extending radially therefrom, the top end extending into a cavity in the footing having an elliptical top opening and circular base, the flanges extending above the base. An elliptical base plate is welded to the bottom of the tubular steel column, the base plate having a circular opening defined therein and a plurality of spaced flange slots depending therefrom. The bottom end of the column is lowered into the cavity, the elliptical base plate passing through the elliptical opening in the cavity,	USPTO	US 10954662
74.		12028	17/1/2023			SAIP	SA 12028

					and the column is rotated 90° to interlock the flanges with the flange slots. The cavity is filled with concrete grout, and the square or rectangular steel column is filled with concrete.		
75.	Durria Ahmed Abdulmaged Ghada Abdulrahman Alnafisa Mohammad Manna Al-Qattan	10292709	21/5/2019	Device for Sutureless Repair of an Injured Nerve	The device for sutureless repair of an injured (severed) nerve includes a securement band connected by a transparent membrane to form a loop. The band includes two opposing approximation claws that extend into the region of the transparent membrane. An aperture in the transparent membrane is covered by an enclosure having an inlet nozzle and an outlet nozzle. An elongate member having a blade on its bottom end extends through an aperture in the top of the enclosure. The band is strapped around the patient's limb with the transparent membrane adhesively secured over the incision, the severed nerve ends are irrigated with saline and air is evacuated in the process. The blade incises the severed ends of the nerve to expose fresh nerve tissue under vacuum, and the severed ends are approximated. The device is left in place for the severed nerve ends to reunite.	USPTO	US 10292709
76.		12258	7/2/2023			SAIP	SA 12258
77.	Nabil Ahmed Qassim Al-Zeqri Isra Abd Alrhman Aboasbah Ali Mohammed Alsalme Mohammed Suleiman Shtaya Iyad Atallah Saadeddin Abdelkader Zarrouk Ismail Khalil Warad	10494722	3/1/2019	Sulfonamide corrosion inhibitors	The sulfonamide corrosion inhibitors are compounds of formula A or formula B, as follows: A  B  A method of synthesizing the sulfonamide corrosion inhibitors includes functionalizing a polyamine precursor with a sulfonyl chloride derivative by dehydrochlorination. The polyamine precursor may be bis(3-aminopropyl)amine and the sulfonyl chloride derivative may be methanesulfonyl chloride. The sulfonamide corrosion inhibitors may be applied alone or in any combination as corrosion inhibitors of a metal and are shown to be effective inhibitors of corrosion of iron or iron alloys in acidic conditions.	USPTO	US 10494722
78.		11989	15/1/2023			SAIP	SA 11989
79.	Ehab Salaheldin Awad Mohamed	10768363	8/9/2020	Plasmonic infrared optical antenna	The plasmonic infrared optical antenna includes an upper layer of a metallic material (such as gold) capable of supporting a plasmonic electromagnetic field, a thin middle layer of an infrared absorption material, and a bottom	USPTO	US 10768363

					supporting layer of a thick substrate. The upper layer has a 2-dimensional periodic array of micron-sized plasmonic antenna cells defined therein. Each antenna cell has the shape of a Bundt baking pan, including a conical antenna horn having an inverted frusto-conical upper portion and a cylindrical stem or lower portion depending from the upper portion. The upper layer includes a post concentrically disposed in the cylindrical lower portion, the post having a conical upper portion extending into the horn, a cylindrical middle portion defining an annular waveguide of 50 nm clearance between the post and the stem of the conical horn, and a conical wedge base embedded in the thin layer of infrared absorption material.		
80.		12146	26/1/2023			SAIP	SA 12146
81.	Maged N. Shaddad Prabhakarn Arunachalam Abdullah M. Almayouf	10683577	16/6/2020	Method of producing hydrogen peroxide using nanostructured bismuth oxide	The method of producing hydrogen peroxide using nanostructured bismuth oxide is an electrochemical process for producing hydrogen peroxide using a cathode formed as oxygen-deficient nanostructured bismuth oxide deposited as a film on the surface of a conducting substrate. An anode and the cathode are immersed in an alkaline solution saturated with oxygen in an electrolytic cell. An electrical potential is established across the cathode and the anode to initiate electrochemical reduction of the oxygen in the alkaline solution to produce hydrogen peroxide by oxygen reduction reaction.	USPTO	US 10683577
82.		12003	15/1/2023			SAIP	SA 12003
83.	Abdullah Nasser Alodhayb	10732048	4/8/2020	Micromechanical photothermal spectroscopy system and method	The micromechanical photothermal spectroscopy system and method includes a cantilever assembly having at least one cantilever thermal sensor extending from a support. The sensors may be simple bimetallic sensors, or may include microchannels made from two materials having different thermal expansion coefficients for analysis of microfluids. A beam of infrared light is separated out from solar radiation by gratings and filters, and is at least partially projected on the cantilever sensor(s). Heat released from the analyte by absorbance of infrared light results in deflection of the cantilever sensor(s), which is measured by a deflection detector. A filter wheel permits tuning of the sunlight-based infrared light beam to plot a spectrum of absorbance as a function of wavelength or wave number characteristic of the analyte. The deflection detector may be optical (using a laser and position sensitive detector(s)), or may use piezo-resistive material embedded in the sensor(s).	USPTO	US 10732048
84.		11952	10/1/2023			SAIP	SA 11952
85.	Moonis Ali Khan Ayoub Abdullah Alqadami Masoom Raza Siddiqui Zeid Abdullah Alothman	10557098	11/2/2020	Synthesis of hydrochar from jackfruit	A method of producing hydrochar from jackfruit peel biomass includes hydrothermal carbonization of jackfruit peel biomass by autoclaving at 150° C.-250° C. for about 3 hours to produce a hydrochar. The hydrochar can be activated by treatment with phosphoric acid (H3PO4), hydrogen peroxide (H2O2), or a combination thereof. The hydrochar produced according to the method is particularly effective at removing azo-dyes, and specifically methylene blue, from aqueous solutions such as industrial waste water.	USPTO	US 10557098
86.		12027	17/1/2023			SAIP	SA 12027
87.	Mohammad Alrubaidi Husain Abbas Hussein M. Elsanadedy Tarek H. Almusallam Yousef A. Al-Salloum	10900215	26/1/2021	Reinforced joint for beam-column connection	The reinforced joint for a beam-column connection is provided for improving the resistance of steel-framed buildings against progressive collapse. Flange stiffening plates reinforce flanges of structural beams, with beam web stiffeners being attached to and extending between the flange stiffening plates. Additional column web stiffeners are attached to and extend between flanges of a structural column. A longitudinal cover stiffening plate is attached to the column stiffeners and the flange stiffening plates, extending across the joint and at least partially covering the beam web stiffeners. The reinforced joint between the structural beams and the structural column develops catenary action in the structural beams in the event of collapse.	USPTO	US 10900215
88.		12724	23/3/2023			SAIP	SA 12724
89.	Manal Ahmed Gasmelseed Awad Moudi Abdullah Rashed Alwehaibi Jamilah Hamed Alshehri Manal Mohammed Alkhulaifi Noura Saleem Aldosari Khalid Mustafa Osman Ortashi Awatif Ahmed HENDI	10751802	25/8/2020	Method of producing silver nanoparticles using red sand	The method of producing silver nanoparticles using red sand may include the steps of adding red sand to water, mixing the red sand in the water, removing a supernatant from the red sand in water mixture after the mixture has settled, adding sodium hydroxide to the supernatant to form an alkaline solution, adding silver nitrate (AgNO3) to the solution, and isolating a precipitated reaction product including the silver nanoparticles. The silver nanoparticles produced according to this method have antibacterial activity, whether used alone or in combination with standard antibiotics.	USPTO	US 10751802
90.		12279	7/2/2023			SAIP	SA 12279
91.	Abdullah Nasser Alodhayb Hamad Abdulaziz Albrithen Khaled Zouher Shamma	10871580	22/12/2020	Metal oxide based radiation sensor	A metal oxide based radiation sensor includes a titanium dioxide (TiO2) thin film layer on a microcantilever surface. The TiO2 thin film layer initially comprises anatase and rutile crystal structures. Exposure to radiation, such as gamma radiation, results in changes in structural features and mechanical behaviors of the metal oxide based radiation sensor. In particular, the resonant frequency changes with exposure to radiation dosages. The structural and mechanical behaviors of the metal oxide based radiation sensor change proportionally with dosage within a range of dosages.	USPTO	US 10871580
92.		12690	15/3/2023			SAIP	SA 12690
93.	Ferdous Mohammed Taher Mulla Akram Bukhary Mohammed Taher Mulla Akram Qari Bukhary Sahar Faisal Sharaf Albarakati	10945816	16/3/2021	Orthodontic bracket positioning instrument	The orthodontic bracket positioning instrument is designed to engage an orthodontic bracket for precisely positioning a center of an orthodontic bracket on a center of the crown while maintaining an open visual field of the bracket and relevant structures of the tooth. The positioning instrument includes a key that is configured to mate with a receiving aperture formed in the bracket. A proximal side of the key is supported by a base that extends along a length of the key. An alignment notch is defined within a proximal side of the base to indicate the center of the bracket, as well as the horizontal axis of the bracket. A handle extends from the proximal side of the base. The handle may extend from the base at an angle to provide a clear line of sight to the base, the bracket, and supporting tooth.	USPTO	US 10945816
94.		12253	7/2/2023			SAIP	SA 12253
95.	Fahad Ibrahim Al-Jenoobi Mohd Aftab Alam Mohamed Hamed Al-Agamy	11617726	4/4/2023	Method for preventing, treating, or ameliorating a microbial infection	A method for preventing, treating, or ameliorating a microbial infection can include administering thymoquinone or a pharmaceutical composition comprising thymoquinone to a patient in need thereof. The patient may be suffering from a microbial infection caused by gram-negative bacteria, gram-positive bacteria, or fungi. The microbial infection may be caused by gram negative bacteria. The gram-negative bacteria may include Acinetobacter baumannii. The gram-negative bacteria may include Pseudomonas aeruginosa. The microbial infection may be caused by antimicrobial sensitive Acinetobacter baumannii or antimicrobial resistant Acinetobacter baumannii.	USPTO	US 11617726
96.		11988	15/1/2023			SAIP	SA 11988
97.	Mohamad Saleh Alsalhi Sandhansamy Devanesan Rawan Ibrahim Salem Alkhalaf	10780111	22/9/2020	Calcium hydroxide nanoparticles synthesized with carob pulp extract	Calcium hydroxide nanoparticles (Ca(OH)2NPs) synthesized using carob pulp extract may be hexagonal nanoparticles with a diameter ranging from about 31.22 nm to about 81.22 nm. The Ca(OH)2NPs may be synthesized by heating ethylene glycol, adding calcium hydroxide to the ethylene glycol to provide a first mixture, heating the first mixture,	USPTO	US 10780111

98.	Hajer Saad Abdullah Allayed Nasser Raqe Rashed Alqhtani Mohammed Ghazi Alkindi Osama Ghurmullah Mohammed Alghamdi	12691	15/3/2023		adding a carob pulp aqueous extract to the first mixture to form a second mixture, heating the second mixture, adding sodium hydroxide (NaOH) to the second mixture to form a third mixture, heating the third mixture, resting the third mixture at room temperature after heating, centrifuging the third mixture, collecting a colloid sediment, extracting any unwanted contaminants from the colloid sediment, and drying the colloid sediment to obtain Ca(OH)2NPs.	SAIP	SA 12691
99.	Saradh Prasad Rajendra Mohamad Saleh Alsalhi Mamduh Jamil Aljaafreh	10541506	21/1/2020	Conjugated polymer laser with temperature-controlled power output	The conjugated polymer laser with temperature-controlled power output uses a triphenylamine dimer-based conjugated polymer as the laser medium to produce an output laser beam having a beam energy tunable between approximately 20 μJ and approximately 325 μJ over a temperature range of the triphenylamine dimer-based conjugated polymer between approximately 40° C. and approximately 85° C. The triphenylamine dimer-based conjugated polymer laser medium is a solution of poly[N,N′-bis(4-butylphenyl)-N,N′-bisphenylbenzidine], known as poly-TPD(4B), dissolved in toluene. Poly-TPD(4B) has a long side chain of butyl (C4H9), providing temperature-dependent dimerization, which may not be found with shorter chains of butyl, such as in poly-TPD(4E) or poly-TPD(4M). The molar concentration of the poly-TPD in the solution is between approximately 5 μM and approximately 100 μM. Additional adjustable tuning of the molar concentration of the poly-TPD in the solution provides for wavelength tuning of the output laser beam between approximately 415 nm and approximately 445 nm.	USPTO	US 10541506
100.		12692	15/3/2023			SAIP	SA 12692
101.	Mohamed Ali Ghanem Abdullah Mohamed Al-Mayouf Mabrook Saleh Ali Saleh	11990	15/1/2023	Low-symmetry mesoporous titanium dioxide electrode	The low-symmetry mesoporous titanium dioxide (lsm-TiO2) for use in an electrode for direct sensing of hydroxide ions may be prepared by evaporation-induced self-assembly followed by two stages of annealing. An electrode made of a conductive substrate coated with the lsm-TiO2 detects electrochemical oxidation of hydroxide ion solution by an oxidation peak for hydroxide ions at a lower potential than other metal electrodes. The oxidation process is irreversible under diffusion-control, the peak current linearly increases with hydroxide concentration within the concentration range from 1.0 to 50 mM, the detection limit may be 0.05 mM and the current sensitivity may be 0.181 mA/mM. The peak current is linearly dependent on alkaline solution pH and the dissociation constant of the hydroxide ion precursor. The electrode can be used in hydroxide sensing performed in nitrate, fluoride, chloride or sulfate supporting electrolyte, which makes the electrode a superior sensor for voltammetric hydroxide determination.	SAIP	SA 11990
102.	Yousef A. Al-Salloum Husain Abbas Mohammad Alrubaidi Tarek H. Almusallam Hussein Mohamed Elsanadedy	10934734	2/3/2021	Damped reinforced joint for beam-column connection	A damped reinforced joint for a beam-column connection is provided for improving the resistance of steel-framed buildings against progressive collapse. Prestressing cables extend across each joint, and each prestressing cable is partially encased within a bent pipe. Each bent pipe may have multiple bends, forming a rippled or undulating shape. The prestressing cables strengthen the connections in the joints, and the bent pipes provide damping for dissipation of seismic energy and the like, thus improving resistance to earthquakes and other seismic, vibratory and/or shock events to the building frame. Images (5)	USPTO	US 10934734
103.		12029	17/1/2023			SAIP	SA 12029
104.	Mohammed Abdulaziz Al-Khamis	49532	16/5/2023	Method and apparatus for storing energy	An energy storing system, which includes a plurality of weights; a first storing unit and a second storing unit, wherein the first storing unit is arranged below the second storing unit and each of the storing units includes a guiding track on which weights can be placed and along which weights can be moved, wherein each of these guiding tracks includes a first portion and a second portion, wherein the second portion is arranged below the first portion; and a loading unit configured to lift at least one weight from the first storing unit to the second storing unit during a first period thereby converting electrical energy to potential energy.	USPTO	US 49532
105.	Saeed Mohammed AL-ZAHRANI Arfat Anis Ranjan Kumar Dwari	11638923	2/5/2023	Flotation reagents from acidic olive oil	The flotation reagents from acidic olive oil are made by transesterification of acidic olive oil. Acidic olive oil is olive oil having an acid value high enough to render it unsuitable for consumption, typically greater than 3.3% and/or between 3.3-7%. Transesterification of the olive oil with methanol converts fatty acids in the olive oil to an ester fraction and a glycerol fraction. The ester fraction may be sulfonated and used as the collector in a reverse flotation process, selectively removing the carbonate gangue from phosphate-carbonate rock in the froth, leaving phosphates in the sink. The glycerol fraction may be used without modification as the collector in the reverse flotation process. Both fractions are highly selective for carbonates, substantially reducing loss of phosphates in the froth.	USPTO	US 11638923
106.	Taieb Aouak Mohamed Ouladsmane Ahmed Yacine Badjah Hadj Ahmed Zeid Abdullah Alothman	11617989	4/4/2023	Extraction of benzene from benzene/cyclohexane mixture	The extraction of benzene from benzene/cyclohexane mixture described herein is a process that removes benzene from a benzene/cyclohexane mixture with high selectivity, resulting in an enriched cyclohexane content in the retentate. The process involves adding an aqueous solution of poloxamer 188 to the benzene/cyclohexane mixture and waiting for the mixture to partition into an organic layer above an aqueous layer. Benzene, being more polar than cyclohexane, is selectively drawn into the aqueous layer. Benzene is then removed from the aqueous layer by pervaporation through a composite PDMS (polydimethylsiloxane)/polystyrene membrane. Cyclohexane is recovered from the retentate by drawing off the organic layer of the retentate by any known method. About 97% of benzene has been removed from a 50-50 wt % mixture by pervaporation in the static mode, and about 99% by pervaporation in the continuous mode.	USPTO	US 11617989
107.	Mu Naushad Tansir Ahamad Ayoub Abdullah Alqadami Ayman Abdelghafar Ahmed Zeid Abdullah Alothman	11618004	4/4/2023	Melamine-formaldehyde derived porous carbon adsorbent	A melamine-formaldehyde derived porous carbon adsorbent may be prepared from melamine-formaldehyde derived porous carbon disposable products. The melamine-formaldehyde derived porous carbon effectively removes organic pollutants from aqueous media. Parameters of contact time, solution pH, initial adsorbate concentration and desorption rate affect efficacy. Adsorption capacities of exemplary melamine-formaldehyde derived porous carbon for MG and MB dyes at 298 K were up to 25 mg/g and 35 mg/g, respectively.	USPTO	US 11618004
108.	Manal Ahmed Gasmelseed Awad Promy Virk Mai Abdelrahman Elobeid Wagealla Sarah Saleh Abdulla Alsaif Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi Rabia Qindeel	11617719	4/4/2023	Moringa oleifera nanoparticles	The Moringa oleifera nanoparticles may be synthesized by harvesting Moringa leaves, drying the Moringa leaves, powdering the dried Moringa leaves, suspending the powdered Moringa leaves in a solution, and spraying the solution into boiling water under ultrasonic conditions to obtain Moringa nanoparticles. The Moringa nanoparticles may be encapsulated by dissolving the Moringa nanoparticles and gum olibanum in ethanol to produce a mixture, injecting the inert organic phase of the mixture into an aqueous solution containing PVA, and homogenizing the aqueous solution.	USPTO	US 11617719

					The Moringa nanoparticles may be useful in preventing the growth of cancer cells and in treating diabetes by inhibiting α-glucosidase and/or α-amylase activity.		
109.	Nawaf Yousef I. Labban	11617636	4/4/2023	Dental shade matching background tool	The dental shade matching background tool has an elongate handle having a handgrip or finger-grip end and a dental shade guide attachment end. The dental shade guide attachment end has an upper surface defining a slot adapted for attaching the handle of a conventional dental shade guide to the tool, which snaps into or forms a friction fit in the slot. An offset neck slopes downward from the dental shade guide attachment end of the handle and has a background tab extending therefrom. The background tab has a face that is coated or covered with a neutral background color, such as gray. The background tab extends parallel to and beneath the tab of a dental shade guide retained in the slot at the dental shade guide attachment end of the handle.	USPTO	US 11617636
110.	Shereef Aly Sadek	12280	31/3/2023	Vertical takeoff and landing unmanned aerial vehicle	The vertical takeoff and landing unmanned aerial vehicle includes a pair of selectively rotatable ducted fans and a selectively rotatable thrust vectoring nozzle providing vertical takeoff and landing for an unmanned aerial vehicle or a similar type of aircraft. A pair of fixed forward-swept wings are mounted on a rear portion of a fuselage, and a pair of canards are mounted on a top end of a forward portion of the fuselage. The pair of ducted fans are respectively mounted on free ends of the pair of canards, and are selectively rotatable about an axis parallel to a pitch axis of the fuselage. An engine is mounted in the rear portion of the fuselage, and a thrust vectoring nozzle is mounted on the rear portion of the fuselage for directing thrust exhaust from the engine. The thrust vectoring nozzle is selectively rotatable about an axis parallel to the pitch axis.	GCCPO	GC0012280
111.	Khalid Abdullah Alruhaimi	12193	31/3/2023	Mandibular distractor device	A mandibular distractor device is configured for attachment to opposing sides of a mandible, e.g., a rabbit's mandible, for performing distraction osteogenesis. The distractor device includes a distractor body and an activation bar that extends through the distractor body. The activation bar can be disposed within the body such that a threaded portion of the bar is threaded to an interior wall of the anterior plate, while a smooth portion of the bar extends within the posterior plate. Once the distractor is secured to the mandible, the activation bar can be rotated incrementally to incrementally disengage the threaded portion of the activation bar from the threaded interior wall of the anterior plate. Rotation of the activation bar in this manner incrementally moves the anterior plate anteriorly within the rabbit's mouth, while the posterior plate remains in position.	GCCPO	GC0012193
112.	Hany M. Yehia Hatem Salama ALI Ebtesam Mohammed Al Olayan Manal Fawzy Elkhadragy Mohamed Fekry Mansour Serag Eldin Manal Ahmed Awad	10946055	16/3/2021	Method of synthesizing custard apple peel nanoparticles	The custard apple peel nanoparticles may be manufactured by extracting custard apple peels in a solvent, spraying the custard apple peel extracts into boiling water under ultrasonic conditions to produce a first mixture, sonicating the mixture, stirring the mixture, and drying the mixture to obtain custard apple peel nanoparticles. In an embodiment, the custard apple peel may be peel of Annona reticulata. In an embodiment, the custard apple peel nanoparticles may have improved antibacterial or antioxidant properties.	USPTO	US 10946055
113.		11031	2/10/2022			SAIP	SA 11031
114.	Zeyad Abdulwahid Ghaleb Haidar	10815965	27/10/2020	Multi-piston bladeless wind turbine	The multi-piston bladeless wind turbine creates electrical energy using hydraulically connected pistons. The system may include a disk, a small piston in fluid communication with a large piston, and a crankshaft attached to the large piston. The disk transfers forces from the wind to the small piston. Hydraulic fluid then transfers the forces to the larger piston. When the disk and associated small piston have been forced to the end of their stroke by the wind, a gate in the disk is opened to reduce wind force on the disk by allowing air to travel through the disk. Subsequently, the disk and associated small piston are pushed back to the beginning of the stroke by the pressure created by the large piston's weight. This process is repeated by closing the gate in the disk. A crankshaft powering an electric generator is turned by the movement of the large piston.	USPTO	US 10815965
115.		11529	1/12/2021			SAIP	SA 11529
116.	Khalid Mustafa Ortashi Awatif Ahmad Hendi Fatemah Homoud Alkallas Mervat Ali Zumia Meznah Mutarid Alanazi Manal Ahmed Awad	11530	1/12/2022	Henna Mesoporous Silica Nanoparticles and Their Use as Anticancer Agents	The Henna mesoporous silica nanoparticles may be synthesized by extracting Henna leaves and using the extract to synthesize silica nanoparticles. Henna leaves may be washed, dried, and ground to a powder. The Henna leaf powder may be mixed with a solvent to form a Henna leaf extract. The Henna leaf extract may be mixed with hydrolyzed tetraethyl orthosilicate and dried to obtain Henna mesoporous silica nanoparticles. The Henna mesoporous silica nanoparticles may have anticancer activity.	SAIP	SA 11530
117.	Abdullah Mohammed Al-Mayouf Matar Naif Al-Shalwi	10488323	26/11/2019	Steel panel with an integrated corrosion sensor	The steel panel with an integrated corrosion sensor is a steel panel having an integrated sensor for monitoring dissolution of a magnetite layer during acid cleaning of the steel panel. The steel panel has an opening formed therethrough, and a hollow insulator is secured to the steel panel within the opening. The hollow insulator is formed from an electrical insulation material and electrically isolates the steel panel from a steel core, which is mounted within the hollow insulator. A reference electrode is positioned near the steel panel. A voltmeter is electrically connected between the reference electrode and a first surface of the steel core. An opposed second surface of the steel core has a layer of magnetite formed thereon. An alarm is in electrical communication with the voltmeter, such that the alarm generates an alarm signal when the voltmeter detects a corrosion potential at a preset threshold potential.	USPTO	US 10488323
118.		11602	6/12/2022			SAIP	SA 11602
119.	Sumaya Omar Basudan	10864060	15/12/2020	Root canal filling material marker	The root canal filling material marker is a tool for marking a desired length on root canal filling material, such as a conventional gutta percha point. In use, the gutta percha point is inserted into a hollow housing through an aperture formed in a front wall thereof. The gutta percha point is releasably gripped between spring-biased clamp jaws. A shaft is longitudinally positioned to a desired marking point at a desired length of the gutta percha point and then laterally pulled. Laterally pulling the shaft slides an applicator, which is secured to the shaft within the housing, across a marking agent and the gutta percha point to make a laterally extending mark on the gutta percha point at the desired length.	USPTO	US 10864060
120.		11026	2/10/2022			SAIP	SA 11026
121.	Wajhul Qamar Mohammad A. Altamimi	10568300	25/2/2020		The testing chamber for laboratory animals includes multiple testing points to provide multiple tests and testing zones within the same chamber. The testing chamber for laboratory animals provides for study, testing and assessment of cognitive and motor skills of laboratory test subjects, such as mice, rats and the like. The multiple tests performed within	USPTO	US 10568300

122.		1609	7/12/2022	Testing chamber for laboratory animals	the testing chamber may be used for an overall characterization of the neurobehavioral activities of the test animals. The testing chamber for laboratory animals includes a housing divided into first and second zones. A beam for balance beam-style travel from the first zone to the second zone is provided. A volume of water may be contained in the first zone, and the second zone may contain platforms and ramps for the laboratory animal to travel over. A passage from the first zone to the second zone may be further provided.	SAIP	SA 11609
123.	Tansir Ahamad Mu. Naushad Abdullah M. Al-Enizi Saad M. Alshehri	10600583	24/3/2020	Method of making a porous nitrogen-doped carbon electrode from biomass	The method of making a porous nitrogen-doped carbon electrode from biomass is a chemical activation-based method of making a porous graphite carbon electrode for supercapacitors and the like. Date palm pollen grains are used as a precursor biomass carbon source for producing the porous graphite carbon. A volume of date palm (Phoenix dactylifera L.) pollen grains is mixed into an aqueous solution of potassium hydroxide to produce a precursor carbon solution. The precursor carbon solution is dried to produce precursor carbon, and the precursor carbon is heated in an inert atmosphere to produce porous nitrogen-doped graphite carbon. The porous nitrogen-doped graphite carbon is washed, dried and mixed with a polyvinylidene difluoride binder, carbon black, and a solvent to form a slurry. The slurry is then coated on nickel foam to form a porous nitrogen-doped carbon electrode. The porous nitrogen-doped carbon electrode is dried, weighted and pressed into a sheet electrode.	USPTO	US 10600583
124.		11416	16/11/2022			SAIP	SA 11416
125.	Sara Mohammad Al Taweel	10363121	30/7/2019	Kit for measuring vertical dimension for dental restoration	The kit for measuring vertical dimension for dental impression provides a tool for measuring a difference between a dental patient's desired vertical dimension and the patient's vertical dimension prior to a dental restoration procedure. The kit includes a base, a plurality of measurement sheets, and dental impression wax. The base includes a planar member having first and second longitudinally opposed ends and opposed upper and lower surfaces. The upper surface has at least one longitudinally extending groove defined therein. First and second legs are secured to the first and second longitudinally opposed ends of the planar member and extend downward from the lower surface. Each measurement sheet has opposed upper and lower surfaces and at least one longitudinally extending rib formed on the lower surface and at least one longitudinally extending groove defined in the upper surface. Each of the plurality of measurement sheets has a known thickness.	USPTO	US 10363121
126.		11414	16/11/2022			SAIP	SA 11414
127.	Abdulrahman Ibrahim Almansour Suresh Kumar Raju Arumugam Natarajan Rajapandiyan Krishnamoorthy Ali A. Alshatwi	10590147	17/3/2020	Spirooxindole-pyrrolothiazole heterocyclic hybrids	The spirooxindole-pyrrolothiazole heterocyclic hybrids are compounds having the formula:  6a, R = H, R′ = F 6b, R = F, R′ = H wherein R is hydrogen and R′ is fluorine (compound 6a) or R is fluorine and R′ is hydrogen (compound 6b). The hybrids may be obtained using a chemical synthesis process involving 1,3-dipolar cycloaddition of 3,5-bis(4/2-fluoro-benzylidene) piperidin-4-ones with isatin and 4-thiazolidinecarboxylic acid in a suitable solvent, preferably 1-butyl-3-methyl-imidazolium bromide ("[bmim]Br"), and preferably under microwave irradiation. Both of these new hybrids demonstrate antimicrobial activity against both gram positive and gram negative drug resistant and non-resistant bacterial pathogens, although compound 6a exhibits more potent antibacterial activity than compound 6b.	USPTO	US 10590147
128.		11032	2/10/2022			SAIP	SA 11032
129.	Zeyad Abdulwahid Ghaleb Haidar	10815965	27/10/2020	Multi-piston bladeless wind turbine	The multi-piston bladeless wind turbine creates electrical energy using hydraulically connected pistons. The system may include a disk, a small piston in fluid communication with a large piston, and a crankshaft attached to the large piston. The disk transfers forces from the wind to the small piston. Hydraulic fluid then transfers the forces to the larger piston. When the disk and associated small piston have been forced to the end of their stroke by the wind, a gate in the disk is opened to reduce wind force on the disk by allowing air to travel through the disk. Subsequently, the disk and associated small piston are pushed back to the beginning of the stroke by the pressure created by the large piston's weight. This process is repeated by closing the gate in the disk. A crankshaft powering an electric generator is turned by the movement of the large piston.	USPTO	US 10815965
130.		11600	6/12/2022			SAIP	SA 11600

131.	Husain Abbas Yousef A. Al-Salloum Tarek H. Almusallam Nadeem A. Siddiqui Baha M. A. Khateeb	10954672	23/3/2021	Method of connecting a circular concrete-filled steel tubular column to a reinforced concrete footing	The method of connecting a circular concrete-filled steel tubular column to a reinforced concrete footing provides a process for constructing a circular concrete-filled steel tubular column anchored in a reinforced concrete footing. A tubular member is partially embedded in a cavity formed in a block of reinforced concrete, such that a pair of flanges thereof is positioned adjacent to and above a base surface of the cavity. A steel tube is partially inserted into the cavity, such that rotation of the steel tube will cause the pair of flanges to interlock with a pair of slots at the lower end of the steel tube, locking the steel tube in place with respect to the tubular member and the block of reinforced concrete. The cavity is filled with concrete grout to secure the column, and the steel tube is filled with concrete to form the circular concrete-filled steel tubular column.	USPTO	US 10954672
132.		11605	6/1/2022			SAIP	SA 11605
133.	Manal Ahmed Gasmelseed Awad Ali Kanakhir Aldalbahi Khalid Mustafa Osman Ortashi Taghrid Saad Omar Alomar Najla Saad Almasoud	10934175	2/3/2021	Method of making zinc oxide nanoparticles using red sand	The method of producing zinc oxide nanoparticles (ZnO NPs) using red sand includes mixing red sand with water to form an aqueous suspension of red sand, removing the supernatant from the suspension, centrifuging the supernatant and retaining a second supernatant from the centrifuged suspension, dissolving a solution of zinc nitrate in the second supernatant to form a precursor solution, and adding 1M NaOH dropwise to the precursor solution to precipitate the zinc oxide nanoparticles. The precipitate may be washed, dried and calcined to provide the red sand synthesized ZnO NPs. The red sand synthesized ZnO NPs have photocatalytic activity and can be used, for example, to degrade organic dyes in aqueous environments.	USPTO	US 10934175
134.		11498	28/11/2022			SAIP	SA 11498
135.	Thamer Ali Albahkali Hany Hassan Aly Sayed	10980688	20/4/2021	Hospital bed with pivoting side rail	The hospital bed with pivoting side rail includes a bed frame having a headboard, a footboard and a platform mounted thereon. The side rail has an upper end, a lower end, and first and second longitudinally opposed sides. The lower end of the side rail is pivotally attached to the bed frame, and the upper end of the side rail is releasably attached to the headboard and the footboard. In order to safely and easily deploy and collapse the side rail, first and second adjustable struts are provided, the struts having opposed first and second ends, such that the first ends of the first and second adjustable struts are pivotally attached to the first and second sides of the side rail, and the second ends of the first and second adjustable struts are pivotally secured to the headboard and footboard, respectively.	USPTO	US 10980688
136.		1610	7/12/2022			SAIP	SA 11610
137.	Ehab Salaheldin Awad Mohamed	10048441	14/8/2018	Variable optical splitter system	The variable optical splitter system includes a V-shaped optical splitter for use in planar lightwave circuits (PLCs), photonic integrated circuits (PICs), etc. The V-shaped optical splitter has first and second optically transmissive branches sharing a common optically transmissive base, where the first and second optically transmissive branches each define an optical waveguide. The first and second optically transmissive branches are symmetrically angled about a central longitudinal axis. A light source directs a light beam to a laterally extending input surface of the optically transmissive base. The light beam travels parallel to the central longitudinal axis. The optical power splitting ratio is directly proportional to the input beam's displacement from the central longitudinal axis, permitting selective tuning of the ratio during design of the splitter.	USPTO	US 10048441
138.		11033	2/10/2022			SAIP	SA 11033
139.	Mohd Aftab Alam Fahad Ibrahim Al-Jenoobi	10940088	9/3/2021	Method of preparing low dose pharmaceutical formulations	Low dose pharmaceutical formulations may be prepared to deliver consistent low doses of a variety of pharmaceuticals with minimal additives. In particular, the low dose pharmaceutical formulations are solid unit dosage forms of low dose drug substances which may be prepared by a method that provides content uniformity across prepared solid unit dosage forms.	USPTO	US 10940088
140.		11601	6/12/2022			SAIP	SA 11601
141.	Nora Alsudairi Maram Alkahtani Lamia Alsiddiqi Raghad Alsarami	11013363	25/5/2021	Beverage mixing and dispensing system	The beverage mixing and dispensing system is a system for producing beverages having a variety of different consistencies, such as those which may be used in the evaluation and treatment of patients with swallowing disorders. The beverage mixing and dispensing system automatically mixes a thickening agent in desired quantities with either water and/or an infused beverage. The beverage mixing and dispensing system may further automatically add beverage modifying agents, such as flavor additives and/or dyes. The resultant mixed beverages are automatically dispensed.	USPTO	US 11013363
142.		11614	7/12/2022			SAIP	SA 11614
143.	Khalid Abdullah Ibrahim Alruhaimi	10028807	24/7/2018	Dental appliance-holding bracket assembly	The dental appliance-holding bracket assembly includes a plurality of housings attached to a corresponding tooth band, each of the tooth bands being cemented to the crown of an adjoining tooth. Each housing defines a socket of a ball-and-socket joint. The assembly further includes a plurality of bracket arms, each bracket arm having a shank including a proximal end and an opposing distal end. The proximal end of the shank has a ball pivotally captured within the housing socket to form a ball-and-socket joint, while the opposing distal end of the shank includes a ring adapted for supporting a dental appliance.	USPTO	US 10028807
144.		11497	27/11/2022			SAIP	SA 11497
145.	Shaker Saeed Abdullah-Alaqel Nader Shaif Esmail Saleh Rageh Saadallah Ali Saeed Eldwin Djajadiwinata Abdulelah Ibrahim Abdulaziz Alswaiyd Hany Abdulrahman AL-ANSARY Sheldon Moseley Jeter Abdelrahman Mahmoud Elleathy Obida Mohamed Zeitoun Zeyad Abdurhman Alsuhaibani Syed Noman Danish Said Ibrahim Abdel-Khalik Saeed Mohammed AL-ZAHRANI	10788021	29/9/2020	Particle-to-working fluid heat exchanger and solar power generator using the same	The particle-to-working fluid heat exchanger is a particle-to-working fluid counter-flow direct contact heat exchanger formed from a heat exchange chamber having opposed upper and lower ends. A diameter of the heat exchange chamber decreases from the upper end to the lower end, with a fluid inlet positioned adjacent the lower end for receiving a stream of fluid. The stream of fluid is tangentially and upwardly directed within the heat exchange chamber. The heat exchange chamber also has a fluid outlet positioned adjacent the upper end thereof. A distribution manifold for the heat exchange chamber produces a plurality of streams of heated particles which exchange thermal energy with the stream of fluid to generate a stream of heated fluid and a volume of cooled particles. A solar power generator, in the form of a solar tower, is further provided, which incorporates the particle-to-working fluid counter-flow direct contact heat exchanger.	USPTO	US 10788021
146.		11028	2/10/2022			SAIP	SA 11028
147.	Muhammad Khurram Khan Tengfei WU Leng Lu	11501580	15/11/2022	Methods and systems for implementing secure biometric recognition	The present disclosure provides a method for facilitating implementing biometric recognition. Further, the method may include receiving two or more biometric images of one or more biometric identifiers of one or more individuals from one or more devices. Further, the two or more biometric images may be in two or more spectrums. Further, the method may	USPTO	US 11501580

					include analyzing the two or more biometric images using one or more deep hashing network models. Further, the method may include extracting two or more discriminative deep hashing codes from the two or more biometric images based on the analyzing. Further, the method may include generating a biometric template based on the two or more discriminative deep hashing codes. Further, the method may include generating a biometric key for the one or more biometric identifiers using a fuzzy commitment scheme based on the biometric template. Further, the method may include storing the biometric key.		
148.	Rabab Abd El Moneim Khalil El Dib Shaza Mohamed Adel Al-Massarani Manal Ahmed Gasmelseed Awad Ali Ali Hasan Elgamal	10947266	16/3/2021	Synthesis of ursolic acid nanoparticles	The synthesis of ursolic acid nanoparticles includes dissolving ursolic acid powder in methanol, boiling water for five minutes, and adding the methanol solution to the boiled water dropwise at a flow rate of 0.1-0.3 ml/min under ultrasonic conditions. After sonication for 20 minutes, the contents are stirred for about 15 minutes, and then dried. Particle size distribution studies and TEM micrographs confirm the resulting product comprises nanoparticles. In vitro testing confirms the ursolic acid nanoparticles exhibit greater anticancer activity than conventional-size particles, and that the nanoparticles exhibit antimicrobial effect against gram positive and gram negative bacteria, as well as fungi.	USPTO	US 10947266
149.		10808	13/9/2022			SAIP	SA 10808
150.	Tarek H. Almusallam Husain Abbas Yousef A. Al-Salloum Aref A. Abadel	10563403	18/2/2020	Multi-leg fiber reinforced concrete	The multi-leg fiber reinforced concrete is concrete in which fibers have been embedded to prevent the concrete from being fractured due to cracks developing therein. Each fiber has multiple legs, defining two and three dimensional structures. At least one fiber is embedded in a volume of concrete, where the at least one fiber has at least first and second legs respectively extending along first and second directions. The first and second directions are angularly oriented with respect to one another between 45° and 135°, with each of the first and second legs having a free end and a fixed end. Each free end has a substantially Z-shaped contour. The fixed ends of the first and second legs may be joined together to define a two-dimensional fiber structure. The at least one fiber may be partially coated with a polymeric material, such as polypropylene.	USPTO	US 10563403
151.		10837	14/9/2022			SAIP	SA 10837
152.	HISHAM NASSER A ALMAJED Ahmad Saad Hamad AlMogren HISHAM NASSER A ALMAJED	10858	18/9/2022	A SYSTEM TO SECURE ENCODING AND MAPPING FOR PLAINTEXT ON ELLIPTIC CURVE CRYPTOGRAPHY (ECC)	A system in Elliptic Curve Cryptography (ECC) that offers secure encoding and mapping of a message to the curve E against encryption attacks, such as Chosen Plaintext Attack (CPA) and Chosen Ciphertext Attack (CCA). The system includes, a method to convert the text message to numerical values with manipulation using Initial Vector IV. In addition, the system provides, a method to revert the manipulated values to their original value. Figure 9 depicted the overall design of the proposed system.	SAIP	SA 10858
153.	Khalid Mustafa Osman Ortashi Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI	10856559	8/12/2020	Method of producing eggshell-derived nanoparticles	The method of producing eggshell-derived nanoparticles may include steps of adding eggshell powder to methanol to form a solution; adding the solution dropwise to boiling water under ultrasonic conditions; incubating the resulting solution under continuous stirring at 200-800 rpm; and drying the resulting solution to obtain the eggshell-derived nanoparticles. The method produces nanoparticles of between 5 and 100 nm. Cytotoxicity testing shows that the nanoparticles exhibit anticancer activity against human breast cancer and lung cancer cell lines.	USPTO	US 10856559
154.		10839	14/9/2022			SAIP	SA 10839
155.	Sulieman Saleem B. Al-Johany	10442601	15/10/2019	Mobile device system for dispensing oral consumables	A system for dispensing oral consumables includes a mobile device and an oral consumables dispenser attached to the device. The dispenser can include a retractable holder for storing the oral consumables. As mobile electronic devices and their associated accessories are carried by most people for lengthy periods throughout the day, the system for dispensing oral consumables can facilitate timely consumption of oral consumables.	USPTO	US 10442601
156.		10990	27/9/2022			SAIP	SA 10990
157.	Hourya Sanat M. Al Nofaie	10463	28/7/2022	Surgical Guide Tool for Single Dental Implant Positioning	The surgical guide tool for single dental implant positioning includes an adjustable U-shaped frame having an inner member and an outer member. The inner member of the frame includes a first arm and a second arm that extends normal to the first arm. The outer member of the frame includes a first arm and a second arm that extends normal to the first ann. The first arm of the outer member includes an inner cavity for slidably receiving the first arm of the inner member. The first arm of the inner member can be moved within the cavity to adjust the size of the frame. A ring, attached to the second arm of the inner member, includes a circular wall with a central aperture extending therethrough. The central aperture is configured for receiving a drill bit therethrough for properly positioning the drill bit on the jawbone..	SAIP	SA 10463
158.	Abdullah Saeed M. Alayad	10092372	9/10/2018	Elastically tensioned dental matrix wedge	The elastically tensioned dental matrix wedge is a dental matrix wedge for use in dental restoration procedures. The elastically tensioned dental matrix wedge includes a hollow elongated body having first and second longitudinally opposed ends. The first end is at least partially open and the second end is closed. An elongated tube is mounted within the hollow elongated body and extends longitudinally therein. A spiral torsion spring is secured to, and wraps about, the elongated tube. A clip is provided for releasably holding the spiral torsion spring in a compressed state. Release of the clip allows the spiral torsion spring to expand and exert an elastic tension force on an inner surface of the hollow elongated body.	USPTO	US 10092372
159.		10466	28/7/2022			SAIP	SA 10466
160.	Sahar Asaad Alzain Ohood Turkistani	10492895	3/12/2019	Facebow with double bite forks	The facebow with double bite forks uses two bite forks. The bite forks are connected to one common handle of the bite fork secured to the facebow frame. The assembly for the two bite forks helps to maintain a predetermined vertical distance of 1.5 centimeters between them. An infraorbital pointer is also attached to the facebow frame. It is secured in place to act as the anterior reference point. The adjustable earpieces inserted into the patient's external auditory meatuses are adjusted to be considered as posterior reference points. This assembly helps to record the facebow and centric relation positions simultaneously.	USPTO	US 10492895
161.		10991	27/9/2022			SAIP	SA 10991
162.	Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi Amnah Bader Alanazi Batool Ali Marzouq Alzhrani Dina Wafiq Awad Soliman	10184033	22/1/2019	Synthesis of silver-PMMA nanocomposite film	The synthesis of a silver-PMMA nanocomposite film includes mixing an aqueous extract of Trigonella foenum-graecum (also known as Helba and fenugreek) seeds with an aqueous solution of silver nitrate, thereby reducing the silver ions to silver metal nanoparticles. A solution of the silver nanoparticles is added to a solution of PMMA [poly (methyl methacrylate)] in N′N-dimethylformamide (DMF) with stirring at 90° C. A light brown solution of silver colloids develops, which is cast in a glass plate and the DMF is evaporated at room temperature, leaving a silver-PMMA nanocomposite film. Testing on water shows the silver-PMMA nanocomposite film prevents or inhibits growth of microbes, suggesting use as an antimicrobial or antibacterial agent, e.g., in water purification.	USPTO	US 10184033
163.		10511	4/8/2022			SAIP	SA 10511

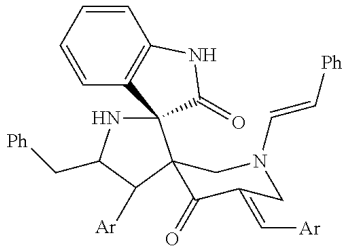
164.	Veeramani Chinnadurai Khalid S. Al-Numair Mohammed A. Alsaif	10729719	4/8/2020	Fruit-derived core-shell nanospheres	The fruit-derived core-shell nanospheres uses mixing silver nitrate and Pouteria caimito extract as a method for the green synthesis of silver nanoparticles, followed by coating the nanoparticles with silica. These core-shell nanospheres may be produced by aqueous extraction of dried P. caimito fruit and mixing and incubating the resulting P. caimito extract with silver nitrate to produce a nanoparticle composition including the silver nanoparticles. The nanoparticles may be subsequently coated with silica by mixing with a silica precursor. The core-shell nanospheres show activity against oral cancer.	USPTO	US 10729719
165.		10986	26/9/2022			SAIP	SA 10986
166.	Husain Abbas Yousef A. Al-Salloum Tarek H. Almusallam Hussein Mohamed Elsanadedy Mohammad Alrubaidi	10415230	17/9/2019	Strengthening system for beam-column connection in steel frame buildings to resist progressive collapse	The strengthening system for beam-column connections in steel frame buildings to resist progressive collapse helps to mitigate progressive collapse in the event of accidental column loss by using a system of rippled steel plates reinforcing the beam-column connection. Various configurations of rippled steel plates are provided to connect in-plane and transverse beams at a joint. In the event of severe damage caused to a column of a steel framed building, the upper joints of the damaged column undergo downward movement. The rippled plates at the joint straighten during the initial downward movement, and resist further downward movement after complete straightening of the ripples. This helps in the development of catenary action in steel beams. The proposed system is simple, fast to construct, demountable, and easy to repair/replace after damage caused by blast loads.	USPTO	US 10415230
167.		10992	27/9/2022			SAIP	SA 10992
168.	Tariq Abdulrahman Alshawi Asma'A Abdurrahman Al-Ekrish Saleh Abdullah Alshebeili	10213274	26/2/2019	Method of tracking and navigation for a dental instrument	The method of tracking and navigation for a dental instrument uses feature extraction, a feature space transformation and a fusion procedure to detect the location of a target, such as a marker placed on a patient's jaw, as well as detecting the location of a dental instrument with respect to the target for guiding a dental practitioner during a procedure. Detection is performed by identifying potential locations for the target and then refining the potential locations based on information from previous detection frames. Given an initial estimate of the target's three-dimensional location, the estimate is improved through iteratively updated information.	USPTO	US 10213274
169.		10465	28/7/2022			SAIP	SA 10465
170.	R. Jothi Ramalingam Hamad Al Lohedan	10828328	10/11/2020	Method of preparing biogenic silver nanoparticles	The method of preparing biogenic silver nanoparticles includes preparing an aqueous plant extract by boiling cut leaves of Alternanthera bettzickiana (Regel) G. Nicholson in distilled water, retaining the aqueous extract. The aqueous plant extracts were mixed with aqueous solutions of silver ions derived from different silver salt precursors (e.g., silver nitrate, silver sulfate, etc.). The resulting biogenic silver nanoparticles exhibit antimicrobial activity against various strains of gram-positive and gram-negative organisms, including some strains of drug-resistant microorganisms. The biogenic silver nanoparticles also exhibit anticancer activity against certain human cancer cell lines. Surprisingly, biogenic silver nanoparticles prepared from nitrate precursor exhibited greater anticancer activity than nanoparticles from sulfate precursor, while biogenic silver nanoparticles prepared from sulfate precursor exhibited greater antibacterial activity than nanoparticles from nitrate precursor.	USPTO	US 10828328
171.		10838	4/9/2022			SAIP	SA 10838
172.	Husain Abbas Abdullah H. Alsabhan Yousef A. Al-Salloum Abobaker S. Binyahya	10480149	19/11/2019	System for constructing a retaining wall	The system for constructing a retaining wall can be used to construct a segmental retaining wall for retaining earth, on either side, at two different levels. The system includes a plurality of blocks. Each block has laterally opposed first and second end portions, a central portion and a neck portion. The central portion is positioned between the first end portion and the neck portion, and the neck portion is positioned between the second end portion and the central portion. The central portion has a longitudinal length less than a longitudinal length of the first end portion, the second end portion has a longitudinal length less than the longitudinal length of the central portion, and the neck portion has a longitudinal length less than the longitudinal length of the second end portion. A plurality of pegs can vertically interlock adjacent blocks. Tie connectors can connect the blocks to an external pipe.	USPTO	US 10480149
173.		10989	27/9/2022			SAIP	SA 10989
174.	Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi	9789146	17/10/2017	Synthesis of adansonia digitata nanoparticles	A method of preparing Adansonia digitata nanoparticles includes dissolving Adansonia digitata plant powder in an organic solvent to form a solution; spraying the solution in boiling water while applying ultrasonic energy to form a mixture; and stirring the mixture for at least about 15 minutes at a speed of about 200-800 rpm to obtain the Adansonia digitata nanoparticles.	USPTO	US 9789146
175.		10461	28/7/2022			SAIP	SA 10461
176.	Zeyad Abdulwahid Ghaleb Haidar	10183233	22/1/2019	Solar desalination system	The solar desalination system is a hybrid system combining a Fresnel solar concentrator with a solar desalination still. The solar still includes an absorber base, at least one sidewall, and a hollow cover. The hollow cover has an inlet port for receiving seawater such that the seawater passes through an interior of the hollow cover and exits through at least one outlet port into an open interior region of the solar still. At least one collection duct is secured to an inner face of the at least one sidewall for collecting pure water condensate. A vacuum pump is in communication with the open interior region of the solar still through a vacuum port for selectively lowering the pressure within the open interior region of the solar still. The solar still is suspended above a linear Fresnel reflector array such that the absorber base is positioned at a focal point thereof.	USPTO	US 10183233

177.		10462	28/7/2022			SAIP	SA 10462
178.	Hany Mohamed Yehia Mohamed Fekry Serag El-Din Hatem Salama Mohamed Ali Mohamed Saleh Alamri Wafa Abdullah Al-Megrin Manal Fawzy Elkhadragy Manal Ahmed Gasmelseed Awad	10500244	10/12/2019	Synthesis of black eggplant (Solanum melongena) skin antioxidant nanoparticles	The black eggplant skin antioxidant nanoparticles may be manufactured by extracting black eggplant skins in a solvent, spraying the black eggplant skin extracts into boiling water under ultrasonic conditions to produce a first mixture, sonicating the mixture, stirring the mixture, and drying the mixture to obtain black eggplant skin antioxidant nanoparticles. In an embodiment, the black eggplant skin may be skin of Solanum melongena. In an embodiment, the black eggplant skin nanoparticles may have improved antibacterial or antioxidant properties.	USPTO	US 10500244
179.		10987	26/9/2022			SAIP	SA 10987
180.	Qazi Emad Ul Haq Muhammad Hussain Hatim Abdulrehman Aboalsamh	10299694	28/5/2019	Method of classifying raw EEG signals	The method of classifying raw EEG signals uses a classification method based on nuclear features extracted as dominant singular values from an EEG signal segment using singular value decomposition (SVD) and a class means-based minimum distance classifier (CMMDC) to classify a patient's EEG signals. From a mean EEG signal, a set of zero-centered EEG signals are calculated, and from the zero-centered EEG signals and a standard deviation of the EEG signals, a unit variance is calculated for each component. Using the standardized component signals a nuclear matrix is calculated, to which singular value decomposition is applied to generate a set of singular values. The 62CMMDC is applied to class means associated with first and second classes and a nuclear feature vector to classify the patient's EEG signals as belonging in either the first or second class.	USPTO	US 10299694
181.		10464	28/7/2022			SAIP	**SA 10464**

182.	Javed Alam Arun Kumar Shukla Ali Kanakhir Aldalbahi Mansour Alhoshan	10576429	3/3/2020	Method of making an asymmetric polyvinylidene difluoride membrane	Polyvinyl difluoride (PVDF) membranes prepared from casting solution including the biopolymer kappa-carrageenan (kCg) as an additive demonstrate improved structure and properties. The resulting asymmetrical structure has a thin layer on the upper surface, a porous sublayer with reduced volume of macro void space and increased porosity, and a spongy layer beneath the sublayer. This results in an increased hydrophilic nature, and provides enhanced wetting, membrane porosity, and water permeability–all important properties making these membranes suitable for a wide range of uses.	USPTO	US 10576429
183.		9995	155/2022			SAIP	**SA 9995**
184.	Sahar Faisal Al Barakati Bader Khalid Al Balkhi	10070942	11/9/2018	Orthodontic cinch back instrument	The orthodontic cinch back instrument is an orthodontic tool used for cinching back an end of an orthodontic wire. The orthodontic cinch back instrument includes an elongated handle portion which extends along a longitudinal axis and has opposed first and second ends. First and second shank portions are respectively secured to, and extend longitudinally from, the first and second ends of the elongated handle portion. First and second arcuate head supports are respectively secured to, and extend from, the first and second shank portions. The first and second arcuate head supports are positioned and contoured antisymmetrically with respect to one another about a lateral axis. First and second heads are respectively secured to the first and second arcuate head supports and are positioned and angled antisymmetrically with respect to one another about the lateral axis. Each of the first and second heads has a slot formed therein.	USPTO	US 10070942
185.		9756	13/4/2022			SAIP	**SA 9756**
186.	Abdulrahman Abdullah Ali Alshammaa Abdullah Mohammed Ali Noman Khaled Ebraheem Addoweesh Ayman Abdullah Abdulaziz Alabduljabbar Abdulrahman Ibrahim Alolah	10116229	30/10/2018	Multilevel cascade hexagonal voltage source converter with isolated DC sources	The multilevel cascade hexagonal voltage source converter with isolated DC sources has a plurality of polyphase stages, each stage having AC inputs corresponding to a number of phases, and a numerically identical plurality of n outputs, cascaded by connection of the outputs of one stage to the inputs of a next stage. Each stage has plural DC-to-AC converters corresponding to the number of phases, and connected to one of the AC inputs, each having a connection for receiving DC power, and amplifying its AC outputs with the received DC power. The DC-to-AC converters are connected by split inductors, with each split inductor providing an output at a center tap terminal. The inductor half-segments are cross-connected with inductive cross-coupling links inductively connected to the inductor half-segments at opposite sides of the polyphase ring connection. The middle terminals of the n split inductors provide n AC outputs for its respective polyphase stage.	USPTO	US 10116229
187.		9931	8/5/2022			SAIP	**SA 9931**
188.	Manal Ahmed Gasmelseed Awad Promy Virk Rabia Qindeel Khalid Mustafa Osman Ortashi Mai Abdelrahman Elobeid	10398744	3/9/2019	Synthesis of mustard seed nanoparticles	The mustard seed nanoparticles may be synthesized by washing mustard seeds, drying and crushing the washed mustard seeds, extracting the crushed mustard seeds to produce a mustard seed extract, spraying the mustard seed extract into boiling water, sonicating the mustard seed extract and boiling water mixture, and centrifuging the mustard seed extract and boiling water mixture to obtain mustard seed nanoparticles. The mustard seed nanoparticles may be used in a pharmaceutical composition.	USPTO	US 10398744
189.		9723	10/4/2022			SAIP	**SA 9723**
190.	Ali Mohamad Ali Alsamhan Ahmed Nageeb Ahmed Badwelan	10442029	15/10/2019	Method of friction stir spot welding	The method of friction stir spot welding uses a database of stored optimization parameters to maximize welding strength for an input type of material and an input geometrical parameter of the material, such as its thickness. Experiments are performed for a variety of different materials having different thicknesses. Each experiment performed for each material and each thickness associated with the material measures the welding strength of a friction stir spot welding process for varying values of an initial dynamic welding parameter, a final dynamic welding parameter and a type of varying function. The values of the initial dynamic welding parameter, final dynamic welding parameter and type of varying function that maximize the measured welding strength for the selected material and its selected thickness are stored in a lookup table. A rotating tool may then be controlled using these optimized values in order to maximize welding strength.	USPTO	US 10442029
191.		10003	15/5/2022			SAIP	**SA 10003**
192.	Manal Ahmed Gasmelseed Awad Rabia Qindeel Khalid Mustafa Osman Ortashi Awatif Ahmed HENDI	10384945	20/8/2019	Method of producing silica nanoparticles using sand	A method of producing silica nanoparticles using sand can include mixing white sand with H2SO4 and H3PO4 to form a mixture. The mixture can be stirred in an ice bath. KMnO4 can then be added to the mixture while maintaining the temperature of the mixture below 5° C. The resulting suspension can be reacted for about 3 hours to about 5 hours on ice. The suspension is stirred in an ice bath and then maintained in a water bath at a temperature of 40° C. for about 90 minutes to about 120 minutes. Afterwards, the temperature is adjusted to and maintained at 98° C. for another period of about 90 minutes to about 120 minutes while adding water. H2O2 can be added to the suspension after adding the water to produce a reaction product with a precipitate. The reaction product can then be dried and calcinated to provide the silica nanoparticles.	USPTO	US 10384945
193.		9728	10/4/2022			SAIP	**SA 9728**
194.	Khalid Abdullah Ibrahim Alruhaimi	10368880	6/8/2019	Universal base attachment bit and cutting bit assembly	A universal base attachment bit and cutting bit assembly includes a base attachment bit and a cutting bit. The base attachment bit includes an outer threaded portion at a first end, a latch at an opposing second end, and at least one multi-sided gripping portion between the latch and the first end. The cutting bit includes a hollow cylindrical outer body and a cylindrical coupling portion within the cylindrical outer body. The cylindrical outer body includes a peripheral wall having opposed first and second open ends and a cutting edge at the first end. The coupling portion is spaced from the peripheral wall of the cylindrical body and includes an inner thread along an inner surface thereof.	USPTO	US 10368880
195.		9993	15/5/2022			SAIP	**SA 9993**
196.	bander saud hamoud aldoheim	9929	8/5/2022	Method of preparing an art watercolor containing nano-pigment	The researcher conducted a scientific experiment, subjecting it to scientific standards to achieve nano colors by understanding the extent of the effect of nano grinding method on the structural composition of the traditional red color in order to improve its formative capabilities and benefit from nano technology in enhancing the processes related to the design structure of the contemporary decorative panel (enriching the decorative panel with scientific discoveries and technological developments). The experiment included a sample of 20 students from the College of Education, Department of Art Education at King Saud University. The sample was divided into two groups, a control group and an experimental group. The decorative shape was colored using old watercolors and watercolors with nanotechnology. The experiment found statistically significant differences at a level of (0.05) or less between the average ranks of the pre and post measurements for the experimental group. There were also statistically significant differences at a level of 0.01 or less between the experimental and control groups in the post measurement. As the experiment results showed,	SAIP	SA 9929

					the watercolor with nanotechnology features precise color characteristics that enhance its effectiveness in gradient shading, thus helping to add a bright color to the shape.		
197.	Mohamad Saleh Alsalhi Sandhanasamy Devanesan Akram Ahmed Alfuraydi Mysoon M.F. Al-Ansari	10000	15/5/2022	Synthesis of silver nanoparticles using sesame oil cake	A method of synthesizing silver nanoparticles includes using sesame (Sesamum indicum) oil cake extract as a reducing agent. The silver nanoparticles can range in size from about 6 nm to about 15 nm. The silver nanoparticles can have an average particle size of about 10 nm.	SAIP	SA 10000
198.	Ali Ali Hassan Elgamal Manal Ahmed Gasmelseed Awad Rabab El Dib Shaza Mohamed Adel Al-Massarani Omer Ahmed Basudan	10086027	2/10/2018	Green synthesis of katononic acid nanosheets	The synthesis of katononic acid nanosheets is a method of extraction of katononic acid from the n-hexane fraction of Nuxia oppositifolia. The katononic acid isolated from N. oppositifolia may be suspended in methanol and added dropwise to boiling water, sonicated, stirred, and freeze dried to form katononic acid nanosheets. These katononic acid nanosheets may be used to kill cancer cells or microorganisms.	USPTO	US 10086027
199.		9998	15/5/2022			SAIP	SA 9998
200.	Manal Ahmed Gasmelseed Awad Manal Mohammed Alkhulaifi Ali Kanakhir Aldalbahi Noura Saleem Aldosari Shaykha Mohammed Alzahly	9750	13/4/2022	Method of synthesizing antimicrobial silver nanoparticles using pigeon dung	The method of synthesizing antimicrobial silver nanoparticles using pigeon dung includes collecting pigeon dung and suspending the pigeon dung in water to produce a pigeon dung aqueous extract, filtering the pigeon dung aqueous extract, adding a solution including a silver source to the pigeon dung aqueous extract to produce a mixture, and resting the mixture to allow silver nanoparticles to form. In an embodiment the antimicrobial pigeon dung nanoparticles may be incorporated in a pharmaceutical composition.	SAIP	SA 9750
201.	Ayman Sadek Ahmed El-Faham Zeid Abdullah Mohammed Al Othman Sameh Mohamed Mahmoud Osman	9873153	23/1/2018	Synthesis of metal nanoparticles using modified MPEG polymer	The synthesis of metal nanoparticles using a modified mPEG (methoxypolyethylene glycol) polymer includes the steps of: preparing a methanolic solution of a polymer; providing an aqueous solution including a metal salt; and combining the methanolic solution of the polymer with the aqueous metal salt solution to produce the metal nanoparticles, where the metal salt is $AgNO_3$, $CuCl_2$, $NiCl_2$, $CoCl_2$, $Pd(Ac)_2$, or $HAuCl_4$ and wherein the metal nanoparticles are silver, copper, cobalt, palladium, nicker or gold nanoparticles having a size between 1 nm and 100 nm in diameter.	USPTO	US 9873153
202.		9722	10/4/2022			SAIP	SA 9722
203.	Abdulrahman M. Al-Ahmari Abdullah Yahia M. Alfaify Mohamed Hamid Hamid	10065242	4/9/2018	Adjustable build envelope for powder bed fusion machines	The adjustable build envelope for powder bed fusion machines includes a frame in the build chamber having four movable sides, a base and two motors with lead screws. The motors are placed at an angle of 45° with respect to the side of the frame, so that as the motors rotate the lead screws, the two sides of the frame slide in opposite directions. The sides move inward with the help of guide pins and dovetail grooves, thereby reducing the build envelope volume. For large builds, both motors rotate in the reverse direction to increase the build envelope volume. By changing the build envelope volume according to the given build size, powder waste is reduced.	USPTO	US 10065242
204.		9994	15/5/2022			SAIP	SA 9994
205.	Abdulmonem Alsiddiky Raheef Mohamed Alatassi Abdullah Bin Dous	10265236	23/4/2019	Hip spica cast application stand	A hip spica cast application stand for holding a patient's legs in a desired position while a spica cast is applied. The stand includes an adjustable vertical post extending out of a base. Two extendable arms are pivotally attached to the top of the post. Each arm has a "U"-shaped leg holder at one end to receive and support a patient's thigh. During a hip spica casting procedure, the post length, arm length, and arm angles can be adjusted and locked in place to support and maintain the patient's legs at a desired position.	USPTO	US 10265236
206.		9726	10/4/2022			SAIP	SA 9726
207.	Mohamed Zoubir Allaoua Bendjaballah	10206782	19/2/2019	Custom-fitting collar sleeve backing for commercial hip protheses	The custom-fitting collar sleeve backing for commercial hip prostheses includes a base and a top portion, the top portion being connected to the base. The base has a bottom surface defining an aperture. The aperture of the bottom surface is dimensioned and configured for receiving the neck portion of a hip prosthesis. The bottom surface of the base may have a beaded topology. The top portion includes a shoulder portion defining an aperture. The aperture of the shoulder portion includes an outwardly extending annular flange and is configured for fitting the cylindrical shaft of the neck portion of the hip prosthesis.	USPTO	US 10206782
208.		9724	10//4/2022			SAIP	SA 9724
209.	Ali Abdullah Alshatwi Jegan Athinarayanan Periasamy Vaiyapuri Subbarayan	9721	10/4/2022	Fortified date fruit product	A fortified date fruit product includes date fruit sugar and one or more mineral phosphate nanostructures. The mineral phosphate nanostructures can be selected from one or more of calcium phosphate, zinc phosphate, and iron phosphate nanostructures, among others. The mineral phosphate nanostructures can have a particle size ranging from about 5 nm to about 100 nm, e.g., about 5 nm to about 20 nm, about 50 nm to about 100 nm, and about 75 nm to about 100 nm.	SAIP	SA 9721
210.	Mohd Aftab Alam Fahad Ibrahim Al-Jenoobi Mohamed Hamed M. Al-Agamy	10379016	13/8/2019	Apparatus for inoculating agar plate	The apparatus for inoculating agar plates includes a spray chamber having an upper opening for receiving an atomized microbial suspension and a lower opening for receiving an agar plate. The apparatus also includes an atomizer including a reservoir and a fluid tube for delivering the microbial suspension to the atomizer nozzle. A containment feature extends around an inner surface of the spray chamber to catch any drop that may form on its inner wall and advance down towards the lower opening. The spray chamber allows multiple agar plates to be quickly inoculated without cross-contamination of agar habitats, without contaminating the outside of the plates, and without contaminating the work area.	USPTO	US 10379016
211.		9725	10/4/2022			SAIP	SA 9725
212.	Mohd Aftab Alam Fahad Ibrahim Al-Jenoobi	10330596	25/6/2019	Apparatus and method for testing the ability of materials to protect photolabile materials	The apparatus and method for testing the ability of materials to protect photolabile materials provides an accurate measurement by directly observing the degradation level in a photolabile material. The apparatus is an assembly having primary and secondary cells and a light source. The primary and secondary cells are arranged in different configurations with respect to one another such that any light that reaches the photolabile materials must first go through the protective material under test. The method includes placing a protective material under test in the primary cell; placing a photolabile material in the secondary cell; subjecting the assembly to a light source for a predetermined amount of time; and removing and testing the photolabile material for degradation.	USPTO	US 10330596
213.		9930	8/5/2022			SAIP	SA 9930

214.	Faisal Saud Fakhouri Abdulaziz Saud Fakhouri Justo Juvian Torres-Rodriguez	9932	8/5/2022	Pneumatic actuator for dispensing surgical staples	The pneumatic actuator for dispensing surgical staples is a handheld actuator for use with a typical staple cartridge. A source of pressurized fluid is used to automatically drive forward movement of a plunger rod. As in a conventional, manually-driven surgical stapler, the forward movement of the plunger rod is used to actuate the surgical stapler to bend and eject a staple. The pneumatic actuator may be used with any suitable type of surgical staple cartridge, through coupling of the plunger rod thereto. The pneumatic actuator for dispensing surgical staples includes a housing having an upper portion, for receiving the pressurized fluid to drive the plunger rod, and a lower portion, which is configured to act as a gripping handle for the user. A finger-actuated trigger is further provided, allowing for single finger release of the pressurized fluid to reset the pneumatic actuator for a surgical stapler.	SAIP	SA 9932
215.	Abd El-Galil E. Amr Mohamed A. Al-Omar Ahmed M. Naglah	9975917	22/5/2018	Pentacyclic triterpenoidal derivatives	A pentacyclic triterpenoidal derivative can include 3,11-dioxo-24(phenyl)-urs-12-en-24-one (4), 24-norurs-12-en-24(phenyl)-3,11-dione (5), 3,11-dioxo-24(Phenyl)-urs-1,12-diene-24-one (6), or 24-nor-urs-1,12-diene-24(phenyl)-3,11-dione (7). The pentacyclic triterpenoidal derivative demonstrates highly potent 5-lipoxygenase inhibition activity.	USPTO	US 9975917
216.		9997	15/5/2022			SAIP	SA 9997
217.	Abdulrahman Alhozaimy Raja Rizwan Hussain Abdulaziz Al-Negheimish Devendra Deo Narain Singh	11384016	12/7/2022	Additive for reinforced concrete	The additive for reinforced concrete is a concrete additive for preventing corrosion of steel rebars in steel-reinforced concrete, improving the workability of the cast concrete, and reducing water absorption/permeability in the cast concrete. The reinforced concrete may be a conventional reinforced concrete, such as that formed from a mixture of water, an aggregate and cement, having at least one steel rebar embedded in the mixture. The additive is added to the mixture prior to curing and casting. The additive may for example, have a concentration with respect to the cement of between 0.25 wt % and 1.0 wt %. The additive includes a triazole and a non-ionic surfactant including a poly oxy ethoxylated reaction product of sorbitan and a fatty acid. The triazole and the non-ionic surfactant are dissolved in the solvent.	USPTO	US 11384016
218.	Abdulrahman Alhozaimy Raja Rizwan Hussain Abdulaziz Al-Negheimish	11384015	12/7/2022	Corrosion-preventing additive for reinforced concrete	The corrosion-preventing additive for reinforced concrete is a concrete additive for preventing corrosion of steel rebars in steel-reinforced concrete. The corrosion-preventing additive is powdered scoria, including concentrations of about 45 wt % SiO_2, 14 wt % Fe_2O_3, and 15.5 wt % Al_2O_3, with the remainder being standard components found in volcanic rock. The average particle size of the powdered scoria is 45 microns or less. Reinforced concrete treated with the corrosion-preventing additive includes a mixture of an aggregate, water, and cement (such as Portland cement), along with at least one steel rebar embedded in the mixture, and the powdered scoria.	USPTO	US 11384015
219.	Thamer Ali Albahkali Hany Hassan Aly Sayed Mohamed Elsayed Mohamed Bassuni	10397989	27/8/2019	Oven with temperature probe	The oven with a temperature probe measures the temperature of food being cooked within the oven to provide real time feedback for determining a status of the food being cooked, such as, for example, indications that the food is fully cooked, partially cooked or uncooked. The oven with a temperature probe is similar to a conventional oven, but with a telescopic tube which selectively extends into the cooking chamber of the oven. An upper end of the telescopic tube is mounted within an open interior of a hollow upper wall of the oven, and a lower end of the telescopic tube defines a probe tip, containing a temperature sensor for measuring an internal temperature of the food being cooked. When not in use, the telescopic tube collapses fully within the open interior of the hollow upper wall. A display indicates cooking status of the food, based on the measured temperature.	USPTO	US 10397989
220.		9516	13/3/2022			SAPO	SA 9516
221.	Ehab Salaheldin Awad Mohamed	10359566	23/7/2022	Planar waveguide converter	The planar waveguide converter is a silica-glass, bi-directional planar waveguide converter, providing conversion from an input from a single-mode waveguide to an output for a three or four-mode waveguide. Conversion takes place through an intermediate stage of a pair of two-mode waveguides. In the initial stage, the input from the single-mode waveguide passes through a V-shaped, graded-index mode slicer, where it is converted into a pair of two-mode signals. In the intermediate stage, each of the two-mode signals is received by a corresponding diamond or quadrilateral-shaped phase shifter. The output of each phase shifter is transmitted to an M-shaped, graded-index mode combiner, which outputs either a three or four-mode signal.	USPTO	US 10359566
222.		9515	13/3/2022			SAIP	SA 9515
223.	Asma'A Abdurrahman Al-Ekrish Shouq Abdullah Jurays	10485632	26/11/2019	Intraoral attachment clip for attachment of objects to edentulous ridges	The intraoral attachment clip for attaching objects to edentulous ridges has a flexible body configured as an elongated U-shaped strip that is designed to be conformed to an edentulous ridge. The clip has a lower or tissue surface adapted for contacting the mucosal surface of the ridge and an upper or oral surface facing the oral cavity. The tissue surface of the clip includes a plurality of micro-projections and an adhesive for securing the device to the underlying mucosal surface of the edentulous ridge. Tracking sensors and/or radiopaque fiducial markers can be attached to the oral surface of the clip for use with surgical navigation systems and imaging procedures. Sustained release drugs may be added to the tissue surface of the device for administering time-release medications through the mucosa over a prolonged period of time.	USPTO	US 10485632
224.		9377	13/2/2022			SAIP	SA 9377
225.	Saad Abdulmohsen M. Alabdulkarim	10328539	25/6/2019	Assistive device for heavy tool operation	An assistive device for heavy tool operation includes a rectangular frame and four legs extending from the corners of the frame. A tool base can extend through a slot in the frame. The tool base is configured to support a mechanical support arm and tool. A height and horizontal position of the tool base relative to the frame is adjustable. Each leg is connected to a wheel to allow the assistive device to travel with a user. The assistive device can support a majority, if not all, of the weight of an attached heavy tool and mechanical support arm, while allowing the user to operate the tool and adjust its position with minimal applied force.	USPTO	US 10328539
226.		9393	16/2/2022			SAIP	SA 9393

227.	Zeyad Abdulwahid Ghaleb Haidar	10233095	19/3/2019	Solar desalination and power generating system	The solar desalination and power generating system is a hybrid system combining a Fresnel solar concentrator with a solar desalination still, and further including at least one concentrating photovoltaic cell for simultaneously generating electrical power. The solar still includes an absorber base, at least one sidewall, and a hollow cover. The hollow cover has an inlet port for receiving seawater, which passes through an interior of the hollow cover and exits through at least one outlet port into an open interior region of the solar still. At least one collection duct collects pure water condensate. A vacuum pump selectively lowers the pressure within the open interior region of the solar still. The solar still is suspended above a linear Fresnel reflector array such that the at least one concentrating photovoltaic cell, mounted to a lower surface of the absorber base, is positioned at a focal line thereof.	USPTO	US 10233095
228.		9437	28/2/2022			SAIP	SA 9437
229.	Abdullah Mohammed Ali Noman Abdulraman Abdullah Alshammaa Khaled Ebraheem Addoweesh Ayman Abdullah Abdulaziz Alabduljabbar Abdulrahman Ibrahim Alolah	10141865	27/11/2018	Hybrid CHB-TVSI multilevel voltage source inverter	The hybrid CHB-TVSI multilevel voltage source inverter is a polyphase grid-connected multilevel inverter system has an upper part and lower part that provides output power in three phases. The upper part uses cascaded H-bridge cells having pairs of switched intermediate outputs. DC power sources are connected in series or parallel to track a desired input voltage to feed respective H-bridges, providing an optimum power point tracking (MPPT) of the DC power sources. The lower part, also connected to DC power sources, uses a triple voltage source multilevel inverter that includes three cascaded units, each configured as a three-leg, two-level inverter. The lower part is connected to the upper part, the upper part providing a corresponding polyphase output.	USPTO	US 10141865
230.		9435	28/2/2022			SAIP	SA 9435
231.	Abdulrahman I. Almansour Natarajan Arumugam Raju Suresh Kumar Periasamy Vaiyapuri Subbarayan Ali Abdullah Alshatwi Jegan Athinarayanan	9873699	23/1/2018	Anti-cancer agents	An anti-cancer agent having the formula: (I)  ● ○ wherein Ph is a phenyl group and Ar is an aromatic group independently selected from the group consisting of phenyl, 2-bromophenyl, 4-bromophenyl, 2-chlorophenyl, 2,4, dichlorophenyl, 4-chlorophenyl, 2-methylphenyl, 3-methylphenyl, 4-methylphenyl, 2 methoxyphenyl, 3-methoxyphenyl, 4-methoxyphenyl, and 3-nitrophenyl; or a pharmaceutically acceptable salt thereof.	USPTO	US 9873699
232.		9434	28/2/2022			SAIP	SA 9434
233.	Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi Nawal Ahmad Abdu Madkhali Aisha Salah Badwelan	9517	13/3/2022	Dye-sensitized solar panel	The dye-sensitized solar panel includes a metal oxide layer and an organic photosensitizing dye on the metal oxide layer. The organic photosensitizing dye is extracted from chard (B. vulgaris subsp. cicla), and the metal oxide layer is composed of zinc oxide nanoparticles synthesized using B. vulgaris subsp. cicla dye as a reducing agent. A working electrode is mounted on a first transparent substrate. The working electrode includes a metal electrode and the metal oxide layer formed thereon. A counter electrode is mounted on a second transparent substrate. An electrolyte is sandwiched between the working electrode and the counter electrode.	SAIP	SA 9517
234.	Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi Nawal Ahmad Abdu Madkhali	9518	13/3/2022	Dye-sensitized solar panel	A dye-sensitized solar panel includes a titanium nanoparticle layer and a plant-derived photo-sensitizer supported on the titanium nanoparticle layer. The photo-sensitizer can be extracted from chard (the cicla cultivar group of B. vulgaris subsp. cicla), and the titanium nanoparticle layer includes titanium nanoparticles synthesized using henna (Lawsonia inermis). The titanium nanoparticle layer can, in addition to titanium nanoparticles, include zinc oxide nanoparticles.	SAIP	SA 9518

235.	Mohammed Murshed Alharbi Nawal Murshed Alharbi	11284970	29/3/2022	Fixed space regainer	The fixed space regainer is a resin band designed to regain space in the gap between the remaining teeth when a tooth is lost. The band has opposing concave ends that provide bonding surfaces or anchors that attach to the remaining teeth on opposite sides proximal to the gap and an elongate connecting band between the bonding surfaces. The regainer is made from a biocompatible elastic material so that the connecting band will arch when installed across the gap and exert resilient pressure against the remaining teeth proximal to the gap to regain the space lost by narrowing that occurs by loss of the tooth, thereby providing proper spacing for growth of a permanent tooth or installation of a cosmetic replacement. The regainer may be designed by the dentist in software from a digital impression and made by 3D printing or additive manufacturing.	USPTO	US 11284970
236.	Salwa Omar Bajunaid Bader Khaled Albalkhi	11278197	22/3/2022	Combination cheek retractor/mouth mirror attachment for dental tool	The combination cheek retractor/mouth mirror attachment for a dental tool is a single unit that has three main portions. The attachment includes a main body portion (cheek retractor), a mirror portion, and a connector portion for attaching a dental tool, such as a probe or dental explorer. The main body portion is an arcuate body defining a border or frame having parallel arcuate upper and lower arms, the ends of the arms being joined by short, parallel legs, the corners being rounded. The mirror portion is an arcuate, single-face plane mirror fixed within the frame of the cheek retractor by gluing, welding, or the like. The connector portion is a split ring annular collar or band extending from the cheek retractor and having parallel tabs with aligned holes receiving a fastener for clamping the attachment to the neck of a dental tool, such as an explorer or probe.	USPTO	US 11278197
237.	Muhammad Khurram Khan Wazir Zada Khan	11271971	8/3/2022	Device for facilitating managing cyber security health of a connected and autonomous vehicle (CAV)	Disclosed herein is a device for facilitating managing cyber security health of a connected and autonomous vehicle (CAV). Accordingly, the device may include a communication interface configured for transmitting a request for updating an electronic control unit (ECU) to a connected and autonomous vehicle (CAV) manufacturer server and receiving a security update and a security patch for the ECU from the CAV manufacturer server. Further, the device may include a processing device communicatively coupled with the communication interface. Further, the processing device may be configured for applying the security update and the security patch to the ECU for updating the ECU, determining an update status for each ECU, and generating a cyber security health status report of the CAV. Further, the device may include a storage device communicatively coupled with the processing device. Further, the storage device may be configured for storing the cyber security health status report.	USPTO	US 11271971
238.	Khalid Abdullah Alruhaimi	11870	1/11/2022	Bony bracket screw	The bony bracket screw has a cross-slot head or a Phillips head and a shank extending from the head, the shank having a smooth upper portion, a threaded lower portion, and a self-tapping or self-drilling tip. The screw has an annual flange defining a stop disposed between the smooth upper shank and the threaded lower shank. The stop may have a larger diameter than the head. The screw has a bracket arm extending from the smooth upper shank at an oblique angle. The free end of the bracket arm has a round retainer, which may be circular or cylindrical and defines a smooth bore adapted for supporting a distractor or other dental appliance. The screw may be made from stainless steel or other noncorrosive, biocompatible material.	GCCPO	GC0011870
239.	Khalid Abdullah Alruhaimi	11515	31/7/2022	Curved alveolar bone distractor	The curved alveolar bone distractor includes an elongate curved and threaded traction rod supported on opposite ends by anchor brackets. The anchor brackets fix the traction rod onto bony foundation of a patient's jaw. Endcaps cap opposing ends of the traction rod to prevent dislodging and define the extent of working length of the traction rod. A traction bracket freely slides along the traction rod, and the traction bracket is fixed to a movable bony segment. A translator nut is threaded onto the traction rod to abut against a side of the traction bracket. Selective rotation of the translator nut pushes the traction bracket to move the movable bony segment a predetermined distraction distance. When assembled and installed, the working components of the curved distractor are exposed in the oral cavity to the facial side for easy access. Tools are provided to operate the translator nut.	GCCPO	GC0011515
240.	RAJABATHAR JOTHI RAMALINGAM JUDITH VIJAYA HAMAD AL-LOHEDAN SIVA CHIDAMBARAM	119410172	2021-10-17	METHOD OF MAKING A SUPERCAPACITOR USING POROUS ACTIVATED CARBON FROM COW DUNG	The method of making a supercapacitor using porous activated carbon from cow dung includes converting cow dung to porous activated carbon by, in a first step, preparing the dung waste by washing and drying the dung waste, and heating the dung waste in a vacuum environment to form pre-carbonized carbon. In a second step, the pre-carbonized carbon is impregnated with phosphoric acid to form a slurry, which is dried, ground, and heated in a vacuum to between 600-900°C to form porous activated carbon. The porous activated carbon is mixed with a binder, acetylene black, and an organic solvent to form a paste, which is dried on a conductive metal foil to form an electrode. Two such electrodes (an anode and cathode) are coated with an electrolyte gel (e.g., aqueous potassium hydroxide) and separated by a polymer (e.g., PTFE) membrane to form the supercapacitor.	SAPTO	SA119410172+
241.	RABEH H ELLEITHY SHAFAAT AHMED SALAHUDEEN OTHMAN Y ALOTHMAN	8366	2016.10.06	Internal batch mixer with three-wing non-intermeshing rotors	The internal batch mixer with three-wing non-intermeshing rotors includes a pair of non-intermeshing, counter-rotating, tangential rotors each having three wing portions. The internal batch mixer includes a housing defining a mixing chamber, where the mixing chamber includes first and second substantially circular chamber cavities in open communication with one another at a central region of the mixing chamber. The first and second non-intermeshing,	USPTO	8366

					counter-rotating winged rotors are respectively rotationally mounted within the first and second substantially circular chamber cavities, such that the central region of the mixing chamber defines an interacting mixing region between the first and second non-intermeshing, counter-rotating winged rotors. The first and second non-intermeshing, counter-rotating winged rotors are driven to counter-rotate with respect to one another. Each rotor has a substantially helical contour and a blade portion divided into three separate wings. Fig. 1		
242.		.627 US	2021-07-27			SAPTO	US 2016/10/06
243.	FAHAD KHSHIM ALQAHTANI	US 15/656,066	2017.07.21	Recycled Plastic Aggregate for use in Concrete	The synthetic recycled plastic aggregate for use in concrete is a composite material containing between 30% and 50% by weight shredded recycled plastic, the balance being a filler embedded in a matrix of the recycled plastic. The recycled plastic includes polyethylene terephthalate (PET). The filler can include dune sand, fly ash and quarry fines. The synthetic recycled plastic aggregate is best used to make concrete with a water-to-cement ratio of at least 0.5. Fig. 1.	USPTO	US 15/656,066
244.		118390726	2021-08-04			SAPTO	**118390726**
245.	TANSIR AHAMAD SAAD ALSHEHRI ABDULLAH AL-ENIZI MU NAUSHAD	118400265	2021-12-05	Oxygen Reduction Reaction Electrocatalyst	The oxygen reduction reaction electrocatalyst is a Pt/N/C electrocatalyst that provides an efficient ORR catalyst suitable for use in polymer electrolyte membrane (PEM) fuel cells, for example. The oxygen reduction reaction electrocatalyst is in the form of platinum nanoparticles embedded in a nitrogen-enriched mesoporous carbon matrix, particularly a nitrogen-enriched graphite matrix. The nitrogen-enriched graphite matrix has an average surface area of 240.4 m2/g, and the platinum nanoparticles each have an average diameter between 10 nm and 12 nm.	SAPTO	SA118400265+
246.	MOHAMMED SAAD AHMED ALMOHAMMADI ALTHAKAFI	116370323	2021-11-30	Three stages evaporative cooler with humidity control and method of using	The invention relates to air-cooling device in several stages leading to cooler temperatures as low using direct evaporation cooling in a way that allows to control the moisture technique and method of using, and mainly consists of pneumatic ventilators and electric pump in addition to the metal longitudinal sliced thin 24 each quilted fabric absorbent liquids 33.34, and are monitoring slides to form cells in the form of 21.22 columns and divide the cell into two categories within each column, cooling occurs by passing air into each category cells, which are parts of which contain wetted fabric, and leads to repeat the heat exchange between the two in several stages to reach the degree of cooling is low , as the separation between the two categories of cells leads to the possibility of choosing dry or wet cooling air as well as controlling the rate of humidity. Through the air control paths inside the machine and in the air vents enter and exit the possibility of cooling the room air o	SAPTO	SA116370323+
247.	MOHANNAD YOUSEF ABDULGHANI HEBA ABDULLATIF KURDI	US 16/216,860	2018.12.11	BAGGAGE HANDLING AND DELIVERY SYSTEM	The baggage handling and delivery system provides a plurality of secure pickup stations for individual passengers to receive their baggage. A plurality of interconnected conveyer belts are used to create a variety of different routes for baggage to follow, with each individual route terminating at a pickup station. Each baggage item is provided with an identifier, such as a bar code, a radio frequency identification (RFID) tag or the like, such that each item of baggage associated with an individual passenger is routed to the specific pickup station assigned to that passenger. Under guidance of a connected controller, each item of baggage entering the baggage handling and delivery system is scanned and routed along a specific path to be received by the appropriate pickup station. Each pickup station is secure and accessible only to the assigned passenger. FIG. 1	USPTO	US 16/216,860
248.		SA 8870	2021-11-02			SAPTO	SA 8870

249.	LAMA AHMED AL-KAHLAN	US 15/864,744	2018.01.08	DENTAL EDUCATION MODEL	The dental education model (10) is a realistic model of a human jaw with removable teeth, including a base plate (12) and a substantially U-shaped member (14) simulating a human gingiva. The substantially U-shaped member (14) has upper and lower surfaces, the lower surface being mounted on the base plate (12). The upper surface has a plurality of recesses (22) defined therein. A plurality of first magnetic connecters are embedded in the substantially U-shaped member (14) adjacent to closed ends of the plurality of recesses (22). A plurality of simulated teeth (16) have coronal (18) and root portions (20). The root portions (20) of the plurality of teeth are removably received within the plurality of recesses (22) formed in the substantially U-shaped member (14). A plurality of second magnetic connecters are embedded in the root portions of the plurality of the teeth, such that the first and second magnetic connectors are releasably magnetically attachable to one another. Fig. 1.	USPTO	US 15/864,744
250.		SA 8993	2021-12-01			SAPTO	SA 8993
251.	AYOUB ABDULLAH ALQADAM TANSIR AHAMAD ZEID ABDULLAH ALOTHMAN SAAD ALSHEHRI MU NAUSHAD	US 15/722,898	2017.10.02	CARBOXYLIC FUNCTIONALIZED MAGNETIC NANOCOMPOSITE	Carboxylic functionalized magnetic nanocomposites can include a magnetic compound, such as Fe3O4, that is encapsulated by a plurality of amino organosilane groups. The organosilane groups can include 3-[2-(2-Aminoethylamino)ethylamino]propyl- trimethoxysilane (TAS). At least some of the organosilane groups can have amino and carboxylic acid substituents. The organic pollutants can include malachite green dye. The carboxylic functionalized magnetic nanocomposites can adsorb dye from solution, such as wastewater. The carboxylic functionalized magnetic nanocomposites can be separated from the solution using an external magnetic material. Fig. 1.	USPTO	US 15/722,898
252.		SA 8980	2021-11-30			SAPTO	SA 8980
253.	RABAB ABD EL MONEIM EL DIB SHAZA MOHAMED AL-MASSARANI ALI ALI EL-GAMAL MANAL AHMED AWAD	118400112	2021-12-05	Method of Synthesizing of 3-Oxolupenal Nanoparticles	A method for synthesizing 3-oxolupenal nanoparticles including isolating 3-oxolupenal from a fraction of Nuxia oppositifolia plant, reducing the 3-oxolupenal to obtain a powder of 3-oxolupenal, dissolving the powder of 3-oxolupenal in methanol to form a first solution, adding the first solution to boiling water to form a second solution, sonicating the second solution, and freeze-drying after sonication to obtain the synthesized 3-oxolupenal nanoparticles. The synthesized 3-oxolupenal nanoparticles exhibited cytotoxic effects and antimicrobial effects. FIG. 1.	SAPTO	SA118400112+
254.	MOHAMMAD ALTAMIMI WAJHUL QAMAR	119410305	2021-10-17	Push Button Operated Rodent Restrainer	The push button (114) operated rodent restrainer (100) is designed to hold a rodent in position to access their tail veins during tail vein injections or for extraction of blood. The assembly includes a base rectangular platform supporting two hinged, transparent half-cylinders. When the assembly is closed, the half-cylinders form a closed tube, which restrains the rodent. The half-cylinders are made of transparent plastic to allow laboratory staff to observe the rodent. The tube facilitates restraining the rodent and includes a longitudinal slit (120) to allow proper ventilation while the rodent is restrained. One end of the closed tube has a slot (116), which allows the rodent's tail to protrude outside the tube for access to the tail. A push button (114) mounted on a resilient lever is connected to the tube halves such that when the push button (114) is depressed, the tube opens, and when the push button (114) is released, the tube closes. FIG. 1.	SAPTO	SA119410305+
255.	PROMY VIRK KHALID MUSTAFA ORTASHI AWATIF AHMED HENDI MANAL AHMED AWAD MAI ABDELRAHMAN ELOBEID	119410028	2021-11-30	FABRICATION OF PROBIOTICS NANOWHISKERS USING CHEESE	A method of fabricating probiotics nanowhiskers using cheese comprises cutting and grinding cheese to produce cheese powder; mixing the cheese powder with sulfuric acid to produce a solution; stirring the solution to produce a stirred solution; and filtering the stirred solution to produce the probiotics nanowhiskers. The fabricated probiotics nanowhiskers possess antioxidant, anti-inflammatory, antitumor, and antimicrobial properties. The probiotics nanowhiskers may reduce cadmium concentration in a patient's liver. The probiotics	SAPTO	SA119410028+

					nanowhiskers may also ameliorate the oxidative stress assessed as a decrease in the serum MDA levels in a patient. Fig. 7.		
256.	RAJABATHAR JOTHI RAMALINGAM HAMAD AL-LOHEDAN	118400040	2021-11-30	COMPOSITE ELECTRODE MATERIAL FOR SUPERCAPACITORS	The composite electrode material for supercapacitors includes mesoporous manganese dioxide (MnO_2), graphene oxide, and nanoparticles of molybdenum disulfide (MoS_2). The composite material is prepared by preparing mesoporous manganese dioxide, preferably by surfactant-assisted precipitation, then mixing graphene oxide with the mesoporous MnO_2 is ethanol and ultrasonicating, and finally nanoparticles of MoS_2 are mixed with the suspension of graphene oxide and mesoporous MnO_2 to form the composite electrode material. The capacitance of the material may be varied by changing the concentration of MoS_2 nanoparticles. Samples of the composite electrode material exhibited good supercapacitance values, such as 527 and 1160 F/g. Figure 1B.	SAPTO	SA118400040+
257.	ABD EL-GALIL AMR MOHAMED AL-OMAR NAGY MAHMOUD KHALIFA	118390634	2021-11-02	SUBSTITUTED NAPHTHYRIDINYL HYDRAZINES AS ANTI-LIVER CANCER AGENTS	The substituted naphthyridinyl hydrazine compounds as anti-liver cancer agents are anti-liver cancer agents that inhibit proliferative pathways of cancer cells, thereby exhibiting potent in vitro and in vivo anticancer activity. The compounds have the formula: wherein R1 and R2 each are selected independently from hydrogen, mercapto, and C1-C5- alkyl, preferably methyl, ethyl, propyl, isopropyl or halogen; R3 and R4 each are selected independently from hydrogen, alkyl or halogen; and R5 is selected from substituted or unsubstituted aryl, more preferably from substituted phenyl, naphthyl, and substituted or unsubstituted heteroaryl, more preferably from furyl, pyrrolyl, thienyl, imidazolyl, thiadiazolyl, pyridinyl, pyridazinyl, pyrimidinyl, benzothiazolyl, oxadiazolyl or sugar moities. These agents exert their action through topoisomerase II inhibition.	SAPTO	SA118390634+
258.	KHALID MUSTAFA ORTASHI REEMA ABDULLAH ALNAMLAH ALI KANAKHIR ALDALBAHI AWATIF AHMED HENDI MANAL AHMED AWAD	120410328	2021-10-17	Synthesis of Zinc Oxide Nanoparticles Using Cymbopogon Proximus Extract	A method of synthesizing zinc oxide nanoparticles includes preparing a liquid extract of Cymbopogon proximus, dissolving zinc salt in the liquid extract to provide an extract with zinc salt, adding a base to the extract with zinc salt to form a precipitate including zinc oxide nanoparticles. The method overcomes the drawbacks associated with prior chemical methods of synthesizing nanoparticles, while providing increased yield of the nanoparticles. FIG. 6A	SAPTO	SA120410328
259.	FOZEYAH SALEH ALMIMAN	120410335	2021-10-14	Method of Synthesizing Silver Nanoparticles Using Mint Extract	A method of synthesizing silver nanoparticles using mint can include providing a solution including silver nitrate, providing an extract of mint, mixing the silver nitrate solution and the extract solution to form an aqueous mixture, and resting the aqueous mixture for a period of time to form the silver nanoparticles. The mint can be mint grown and harvested in Medina, Saudi Arabia. FIG. 9A	SAPTO	SA120410335+
260.	AMNAH EL-ENAZY PROMY VIRK RABIA QINDEEL AWATIF AHMED HENDI MANAL AHMED AWAD MAI ABDELRAHMAN ELOBEID	120410327	2021-10-17	Synthesis of Probiotic Nanoparticles	A method of preparing probiotic nanoparticles can include dissolving formulated probiotics in methanol, spraying the methanol solution into boiling water under ultrasonic conditions to provide a sonicated solution, and stirring the sonicated solution to obtain probiotic nanoparticles. The probiotic nanoparticles may be cluster or rod-shaped. The probiotic nanoparticles may be administered to a subject to reduce oxidative stress or to treat diseases associated with oxidative stress. FIG. 1	SAPTO	SA120410327+
261.	KHALID MUSTAFA ORTASHI ALI ALDALBAHI AWATIF AHMAD HENDI MANAL AHMED AWAD WADHA KHALAF ALENAZI	119410086	2021-10-14	Synthesis of Titanium Dioxide Nanoparticles Using Cymbopogon Proximis	Synthesis of titanium dioxide (TiO_2) nanoparticles (NPs) includes mixing Cymbopogon proximis (Maharayb) grass extract with Titanium (IV) isopropoxide (TTIP). The synthesis is simple and occurs at a rapid rate. The synthesized TiO_2 nanoparticles can be effective in degrading Rhodamine B dye under UV light irradiation. Accordingly, the TiO_2 nanoparticles can be useful in purifying drinking water.	SAPTO	SA119410086+
262.	SAAD ALABDULKARIM	119410008	2021-10-17	Wearable Load Carrier	The wearable load carrier (10) is a body-mounted carrier for carrying and transporting loads, such as boxes, packages, containers and the like. It is supported by the back or torso and shoulders of the user, and is adjustable to receive and carry loads of varying sizes and configurations. The wearable load carrier (10) includes a pair of rails (12), each having an upper	SAPTO	SA119410008+

					end and a lower end, which partially define a carrier frame. A support platform (16) is provided for supporting the load. The support platform (16) includes front and rear edges (20), the front edge being selectively secured to and extending between the pair of rails (12) at an adjustable height and tilt. A pair of shoulder straps (72), a waist strap and a chest strap (68) are provided for releasably securing the carrier to the user's back or torso. Fig. 1.		
263.	KHALID MUSTAFA ORTASHI DINA WAFIQ SOLIMAN AWATIF AHMAD HENDI MANAL AHMED AWAD	119400637	2021-10-17	SYNTHESIS OF SILVER-PMMA NANOCOMPOSITE FILM USING HERBAL EXTRACT	The synthesis of a silver-PMMA nanocomposite film using herbal extract includes mixing an aqueous extract of Aristolochia bracteolate buds with an aqueous solution of silver nitrate, thereby reducing the silver ions to silver metal nanoparticles. A solution of the silver nanoparticles is added to a solution of PMMA [poly (methyl methacrylate)] in N'N-dimethylformamide (DMF) with stirring at 80°C. A brown solution of silver colloids develops, which is cast in a glass plate and the DMF is evaporated at room temperature, leaving a silver-PMMA nanocomposite film. Testing on water shows the silver-PMMA nanocomposite film prevents or inhibits growth of microbes, suggesting use as an antimicrobial or antibacterial agent, e.g., in water purification. In addition, testing by disc diffusion against E. coli and Bacillus cereus showed zones of inhibition, also suggesting use as an antimicrobial or antibacterial agent.	SAPTO	SA119400637+
264.	ZEYAD ABDULWAHID HAIDAR	119400454	2021-10-14	Solar Desalination System	The solar desalination system is a hybrid system combining a Fresnel solar concentrator with a solar desalination still. The solar still includes an absorber base, at least one sidewall, and a hollow cover. The hollow cover has an inlet port for receiving seawater such that the seawater passes through an interior of the hollow cover and exits through at least one outlet port into an open interior region of the solar still. At least one collection duct is secured to an inner face of the at least one sidewall for collecting pure water condensate. A vacuum pump is in communication with the open interior region of the solar still through a vacuum port for selectively lowering the pressure within the open interior region of the solar still. The solar still is suspended above a linear Fresnel reflector array such that the absorber base is positioned at a focal point thereof.	SAPTO	SA119400454+
265.	ALI ABDULLAH ALSHATWI PERIASAMY VAIYAPURI SUBBARAYAN JEGAN ATHINARAYANAN	118400039	2021-10-14	Synthesis of Nanostructures from Phoenix Dactylifera Agro-Wastes	A method of synthesizing nanostructures from agro-waste include providing powdered Phoenix dactylifera agro-waste; mixing the powdered Phoenix dactylifera agro-waste with a liquid to provide a Phoenix dactylifera agro-waste solution; heating the Phoenix dactylifera agro-waste solution in a hydrothermal autoclave to provide a heated solution; and centrifuging the heated solution to provide a liquid fraction and a solid fraction. The liquid fraction include a first plurality of nanostructures. The first plurality of nanostructures include C-dots. The solid fraction further processed to provide a second plurality of nanostructures and a third plurality of nanostructures. The second plurality of nanostructures include lignin nanoparticles. The third plurality of nanostructures include cellulose nanocrystals. The nanostructures used in various applications, such as three dimensional cell culture, UV -protecting textiles, and bio-imaging.	SAPTO	SA118400039+
266.	KHALID S AL-NUMAIR VEERAMANI CHINNADURAI MOHAMMED A ALSAIF	118400008	2021-10-14	BIOMIMETIC SYNTHESIS OF ANTIHYPERGLYCEMIC SILVER NANOPARTICLES	A biomimetic synthesis of antihyperglycemic nanoparticles using silver nitrate and Lavatera cretica is a method for the green synthesis of silver nanoparticles. These nanoparticles may be produced by extraction of fresh L. cretica leaves and mixing and incubation of the resulting L. cretica extract with silver nitrate to produce a nanoparticle composition including the silver nanoparticles. The nanoparticle composition may protect against hyperglycemia.	SAPTO	SA118400008+
267.	MOHAMED AL-OMAR NAGY MAHMOUD KHALIFA	118390687	2021-10-17	NAPHTHYRIDINYL HYDRAZINE DERIVATIVES AS POTENT PERIPHERAL ANALGESIC AGENTS	The naphthyridinyl hydrazine derivatives as potent peripheral analgesic agents are (E)- 2-(substituted benzylidene)-1-(2, 7 -dialkyl-1,8-naphthyridinyl) hydrazines that provide effective peripheral analgesic activity, as demonstrated using the mouse writhing test. The new target compounds include at least one compound that demonstrates higher potency in providing analgesic relief in mice (Protection (%) = 81.44) compared to the reference drug acetyl salicylic acid (Protection (%) = 78.47). These results demonstrated that the target compound exerts acute analgesic action, suggesting that it may represent an alternative in the development of new	SAPTO	SA118390687

					therapeutic strategies. Preferably, the (E)-2-(substituted benzylidene)-1- (2,7-dialkyl naphthyridinyl) hydrazine has the formula: Wherein R1 and R2 are alkyl, R3 is hydrogen, and R4 is NO2.		
268.	HESSAH ABDULLAH ALHUWAISH KHALID ABDULRAHMAN ALMOAMMAR	118390575	2021-10-14	OCCLUSAL CANTING IDENTIFYING TOOL	The occlusal canting identifying tool includes a frame having an elongated horizontal portion and a pair of parallel side arms movably attached to the horizontal portion at opposite ends thereof. The tool further includes a vertical arm centrally positioned on the front of the horizontal portion and a measuring assembly positioned on the rear of the horizontal portion. The measuring assembly includes a protractor rotatably attached to the rear of the horizontal portion, the protractor being configured to rotate on a horizontal axis in relation to the horizontal portion, and a bite plate connected to the protractor, the bite plate being adjustable forward and backward in relation to the protractor. The patient is instructed to bite on the bite plate, and if occlusal canting is present, the degree of canting is quantified by rotation of the protractor. Fig. 1.	SAPTO	SA118390575+
269.	RABBANI SYED BAJI ALI SAEED ALQAHTANI MOHAMMED SAEED ALQAHTANI	120410342	2021-09-20	Method of Synthesizing Lignin-Based Nanocompositions	A method of preparing lignin-based nanoparticles includes using a phase separation method, stabilized by citric acid (CA) crosslinking. The compositions include lignin-based nanoparticles (LG NPs) and a drug or pharmaceutical treating agent encapsulated in the LG NPs. A mean pa11ide size diameter of the drug-loaded LG NPs can be less than 100 nm. The LG NPs improve oral bioavailability, and achieves rapid absorption of the encapsulated drug. FIG. 1A & B	SAPTO	SA120410342+
270.	AYMAN ATTA HAMAD AL-LOHEDAN ABDELRAHMAN EZZAT MOHAMED HASAN WAHBY MAHMOOD ABDULLAH	119400615	2021-09-14	Modification Of Sand With Superhydrophobic Silica/Wax Nanoparticles	The modification of sand with superhydrophobic silica/wax nanoparticles may provide for water storage, applicable, for example, in desert environments. In particular, highly thermal stable superhydrophobic coats for sand are made of nanoparticles composed of superhydrophobic silica capped with paraf1in wax. Superhydrophobic sand modified by such nanoparticles addresses issues of water storage in desert environments, capitalizing on sand resource utilization. Superhydrophobic sand, as modified, has excellent water repellency and great water-holding capacity. The superhydrophobic sand modified with superhydrophobic silica/wax nanoparticles can be applied for the desert water storage for agriculture and planting.	SAPTO	SA119400615
271.	SAHAR ASAAD ALZAIN	118400257	2021-09-21	Device For Recording Vertical And Centric Occlusion Positions Of Edentulous Jaws	The device for recording vertical and centric occlusion positions of edentulous jaws is a tool which allows a dental practitioner to maintain maxillary and mandibular record bases (and their respective wax rims) in their respective vertical and centric occlusion positions during transfer of the maxillary and mandibular record bases to a conventional dental articulator. A pair of telescopically adjustable rods are provided for measuring the vertical occlusion position of the patient's edentulous jaws. Each of the telescopically adjustable rods has a selectively adjustable and lockable height, with the opposed ends thereof being releasably secured to the maxillary and mandibular record bases, respectively. The telescopically adjustable rods are also horizontally adjustable with respect to the maxillary and mandibular record bases, allowing the centric occlusion position of the patient's edentulous jaws to be recorded.	SAPOT	SA118400257
272.	JAMAL MOHAMMED ALI KHALED HAZEM AHMED GHABBOUR SALIM S AL-SHOWIMAN FAHD ALI NASR MOHAMMED MUJEEB ABDULLAH SAEED SULTAN NAIYF SULTAN HELIAL ALHARBI YAHIA NASSER MABKHOT	118400073	2021-10-17	Enaminone-Grafted Trithiocarbonate Derivative with Anticancer and Antimicrobial Activity	The present subject matter IS directed to an enaminone-grafted trithiocarbonate compound having the structure: and the anticancer and antimicrobial activities exhibited by the compound.	SAPTO	118400073
273.	AYMAN NAFADY SAEED AL-ZAHRANI USMAN ALI RANA ARFAT ANIS KHAN	118400011	2021-09-14	NITROGEN AND PHOSPHORUS CO-DOPED CRYSTALLINE CARBON MATERIALS	The nitrogen and phosphorus co-doped crystalline carbon materials are prepared by a template-free method that includes pyrolizing a precursor mixture including a carbon source, a nitrogen source, and a phosphorus source. The method involves mixing known amounts of the precursor components, dissolving the precursor mixture in deionized water, distilling solvent from the aqueous mixture, and vacuum drying the residue to a dry solid mixture. The mixture is	SAPTO	SA118400011

					then carbonized by pyrolysis at 900°C in an argon atmosphere to obtain a nitrogen and phosphorus co-doped crystalline carbon material. The principles of the method are illustrated by a precursor mixture of sucrose, urea, and ammonium dihydrogen phosphate (NH4H2PO4). The amount of ammonium salt in the precursor mixture plays a key role in controlling the crystallinity, morphology, and composition of the N/P co-doped crystalline carbon material.		
274.	HAMAD ZAID ALKHATHLAN ABDULLAH MOHAMMED AL-MAYOUF MAHMOOD MOHAMMED ABDULLAH MERAJUDDIN AINUDDIN KHAN	118400111	2021-09-27	Method of Protecting Metal from Corrosion Using Plant-Derived Anti-Corrosion Agents	Extracts of Matricaria aurea flowers are shown to exhibit anticorrosive activity when used with mild steel in acidic media. A process is shown for obtaining such anticorrosive extracts from the flowers of M. aurea. In particular, certain methanolic, aqueous methanolic and water extracts, as well as ethyl acetate and n-butanol fractions, of M. aurea flowers are shown to demonstrate particular anticorrosive activity when used with mild steel in acidic media. An isolated flavonoid compound from M. aurea flowers, designated as apigenin-7-O- β-D-glucoside, is particularly useful for anticorrosive activity when used with mild steel in acidic media. Figure 1.	SAPTO	SA118400111+
275.	MOHD AFTAB ALAM	118390328	2021-09-27	DISPENSING DEVICE FOR DISPENSING A PHARMACEUTICAL PREPARATION	The dispensing device includes a hollow tube having an open upper end and an open lower end, as well as a horizontal bar disposed between the walls of the hollow tube adjacent to the open lower end. A disc is movably positioned within the hollow tube, the disc having a central aperture defined therein. A string or other flexible member has one end secured to the disc. The other end of the string is drawn downward in the tube, looped around the horizontal bar, then drawn upward through the central aperture in the disc and out the open upper end of the tube. A semi-solid medication is loaded in the tube between the disc and the open lower end of the tube. When the string is pulled out of the upper end of the tube, the disc is drawn downward, dispensing the medication. Fig. 1.	SAPTO	SA118390328+
276.	HANAN NEJER SAHIL ALOTAIBI SAFA MOHAMMED AL-RASHED	117390203	2021-09-27	DEVICE FOR VERIFYING PARALLELISM OF ABUTMENT TEETH FOR DENTAL APPLIANCE INSERTION	The device for verifying parallelism of abutment teeth for dental appliance insertion (10) provides a visual indicator for a dental practitioner for determining parallelism in a pair of abutment teeth. The device for verifying parallelism of abutment teeth for dental appliance insertion (10) includes a housing (12) having a top end (20), a bottom end (22), and longitudinally-extending slot (14) formed therethrough. First (16) and second rods (18) are received within the longitudinally-extending slot (14) and are longitudinally slidable therein, with each of the first (16) and second rods (18) extending laterally (i.e., perpendicular to the longitudinal direction) through the longitudinally-extending slot (14). First (26) and second plates (28) are respectively suspended from central portions of the first (16) and second rods (18) and are longitudinally slidable through an opening formed through the bottom end (22) of the housing (12). First (50) and second ratcheting mechanisms (52) re	SAPTO	SA117390203+
277.	ISMAIL KHALIL WARAD ALI MOHAMMED ALSALME MUJEEB ABDULLAH SULTAN NABIL AHMED AL-ZAQRI	118400050	2021-09-14	METHOD OF MAKING PALLADIUM NANOPARTICLES	The method of making palladium nanoparticles is a microwave thermolysis-based method of making palladium nanoparticles from a complex of palladium(II) acetate Pd(O2CCH3) 2 (or Pd(OAc)2) and a ligand. The complex of palladium(II) acetate and the ligand is melted in oleic acid and dichloromethane to form a solution. The ligand is 1- (pyridin-2-yldiazenyl)naphthalen-2-ol (C 15H11N3O), which has the structure: The solution is stirred for two hours under an inert argon atmosphere, and then irradiated with microwave radiation to produce palladium nanoparticles.	SAPTO	SA118400050+
278.	HANAN NEJER SAHIL ALOTAIBI SARA MOHAMMED AL TAWEEL	117380712	2021-07-28	CENTRIC RELATION BITE REGISTRATION TOOL	The bite registration block is used for recording the relation between a patient's maxillary and mandibular arches for proper fabrication of a fixed dental prosthesis, or prostheses, such as fixed crowns or the like. The bite registration block is particularly adapted for use when a patient's prepared teeth are opposed by an edentulous arch (i.e., opposed by an area of missing teeth). The bite registration block is formed from a resilient material, such as a suitable type of plastic or the like, and is formed as a block having opposed upper and lower surfaces, a pair of laterally opposed side surfaces, and a pair of longitudinally opposed side surfaces. The upper surface defines a concave, longitudinally extending recess for positioning about an edentulous region of the patient's jaw. FIG. 1	SAPTO	SA117380712+

279.	IBRAHIM ALI SUMAILY	119410016	2021-07-28	SELF-RETAINING NASAL SEPTUM RETRACTOR	The self-retaining nasal septum retractor includes two pivotally attached arms having handles on one end and speculum blades on the opposing end. The speculum blades are adjustably connected to the arms through pivoting joints. A user can adjust the vertical displacement and angular relation between the speculum blades and the arms to fit different patient septal/nasal structures. A self-retaining mechanism allows a user to lock the retractor in a retracted position, freeing up a hand of the user for other surgical tasks. Fig. 1.	SAPTO	SA119410016
280.	AHMED NAGLAH ABD EL-GALIL AMR ABDULRAHMAN ALMEHIZIA MOHAMED AL-OMAR	119400761	2021-07-04	Sulfonylurea Derivatives of Oleanolic Acid	The sulfonylurea derivatives of oleanolic acid include compounds replacing the 5-chloro-2-methoxybenzoic acid moiety found in glibenclamide with oleanolic acid. The resulting triterpenoidal sulfonylurea derivatives are compounds having the following formula: or a pharmaceutically acceptable salt thereof. The derivatives are synthesized by condensation of 3-oxo-Olean-12-en-28-oic acid with 4-(2-aminoethyl)benzenesulfonamide to form an intermediate product, followed by reaction with cyclohexyl isocyanate or 4- methylcyclohexyl isocyanate to give 3a or 3b, respectively. The sulfonylurea derivative compounds were screened for their oral hypoglycemic activity in vivo using the alloxaninduced diabetic mouse model and proved more potent than either glibenclamide or oleanolic acid.	SAPTO	SA119400761+
281.	AMANI SHAFEEK AWAAD REHAM MOSTAFA EL-MELIGY FATMAH ALI AL-ASAMARY LARA AYMAN EL-SAWAF MENATALLAH MOHAMED ALLAH	119400372	2021-07-04	Anticancer Extracts of Alpinia Officinarum Hance	The anticancer extracts of Alpinia officinarum Hance are produced by percolation extraction of dried Alpinia officinarum Hance rhizomes in 95% ethanol. The extracts may then be concentrated, suspended in water, filtered, and lyophilized. The resulting anticancer extracts may be used to kill a variety of cancer cells, including lung cancer, colorectal cancer, colon cancer, cervical cancer, and prostate cancer.	SAPTO	SA119400372+
282.	SAHAR ASAAD ALZAIN	118400149	2021-07-28	Cheek and Tongue Retractor	The retractor (10) is a generally U-shaped device for protecting the cheek and tongue from instruments used during dental and prosthodontic procedures. The retractor (10) has a planar base (20) defined by two spaced arms (40A and 40B), a pair of upright shields extending from the arms, and a posterior connector connecting the shields (16). The base (20) is contoured to grip the tooth adjacent to the tooth to be treated, and thereby, secure the retractor within the patient's mouth. Fig. 1.	SAPTO	SA118400149+
283.	JAMAL TAGELSIR ELSHEIKH ADEL RABIE USMAN MOHAMMAD IBRAHIM ALWABEL	118400030	2021-08-04	Encapsulated Sustained Release Urea Fertilizer	The encapsulated sustained release urea fertilizer is a urea fertilizer and a stabilizer encapsulated in fumed silica. The stabilizer may be a gellan gum hydrogel or biochar. The encapsulated sustained release urea fertilizer allows for both immediate and sustained nitrogen release over time and displays reduced nitrogen volatilization and increased water holding capacity.	SAPTO	SA118400030+
284.	AYMANM ATTA HAMAD AL-LOHEDAN MAHMOOD ABDULLAH	118390626	2021-07-28	Composition and method for enhanced oil recovery	The composition for enhanced oil recovery includes metal oxide or carbonate nanoparticles capped or encapsulated by a water soluble poly(ionic liquid) (PIL). The nanoparticles may be, e.g., CaCO3, TiO2, Cu2O·Fe3O4, or ZrO2 . The poly(ionic liquid) may be a copolymer of 2-acrylamido-2-methyl-1-propanesulfonic acid (AMPS) with N-isopropyl acrylamide, N-vinyl pyrrolidone, methacrylic acid, or acrylamide. The composition is made by synthesizing the metal oxide or carbonate nanoparticles in the presence of the PIL. The resulting nanocomposite or nanomaterial alters the wettability of carbonate rock in a carbonate reservoir, releasing asphaltenic crude oil from the surface of the carbonate rock and replacing oil in the pores of the rock, thereby enhancing secondary and tertiary oil recovery.	SAPTO	SA118390626+
285.	AMEL LAREF KHALID MUSTAFA ORTASHI AWATIF AHMED HENDI FATMAH YAHIA AL-ABBAS LENA JASSIM MANAL AHMED AWAD	118390374	2021-07-27	Synthesis of Reduced Graphene Oxide Nanoparticles	The synthesis of reduced graphene oxide nanoparticles includes the steps of: mixing soot with an acid to obtain a solution; adding a first oxidant gradually into the solution to oxidize the carbon source and obtain a suspension; stirring the suspension while maintaining a temperature of the suspension at about 35 oc; raising the temperature of the suspension to about 60 °C; adding water into the solution; adding a second oxidant into the suspension while stirring resulting in the oxidation of the carbon source to form the reduced graphene oxide	SAPTO	SA118390374+

	NAWAL AHMED MADKHALI HAJAR ABDULLAH ALDAKHIL				nanoparticles; and isolating the resulting reduced graphene oxide nanoparticles by centrifugation. The acid is preferably an acid mixture including, for example, sulfuric acid (H2S04) and phosphoric acid (H3P04). The first and second oxidants can be potassium permanganate (KMn04) or hydrogen peroxide (H202). Fig. 1.		
286.	IBRAHIM MUTASIM IBRAHIM KHALIL MUTASIM IBRAHIM KHALIL	118390365	2021-07-27	Green Method for Coating A Substrate with Silver Nanoparticles	The method for coating a substrate with silver nanoparticles includes reducing a silver nitrate solution with an ethanol extract of the traditional Indian medicinal plant (Curcuma Longa L.), a naturally abundant antioxidant, to form a final solution, and contacting the final solution with the substrate to provide the silver nanoparticle coating. Formation of the silver nanoparticle coating on the substrate can be determined when a mirror in the final solution is observed. The thickness of the coating layer can be less than 125 nm. The coated substrates can be highly conductive. Fig. 1.	SAPTO	SA118390365+
287.	AFNAN FOUZAN ALFOUZAN	117390164	2021-07-07	ELECTRIC TOOTHBRUSH HOLDER FOR LABORATORY USE	The electric toothbrush holder for laboratory use is a holder for the testing of dental appliances. The electric toothbrush holder for laboratory use includes a base having opposed upper and lower surfaces. A sample receptacle is mounted on the upper surface of the base and defines an open interior region for removably receiving a dental sample. At least one support is mounted on the upper surface of the base for releasably supporting a gripping portion of an electric toothbrush. At least one bracket is pivotally secured to the at least one support for releasably securing the gripping portion of the electric toothbrush to the at least one support. In use, the gripping portion of the electric toothbrush is releasably secured to the at least one support such that bristles of a head portion thereof contact the dental sample received within the sample receptacle. Fig. 1.	SAPTO	SA117390164+
288.	ALI AHMED MUSTAFA ALI MUSTAFA ABDALLA SALIH MUTASIM IBRAHIM KHALIL	119410057	2021-07-07	Extract of Vicia Faba Beans	The extract of Vicia faba beans is prepared by soaking beans in distilled water overnight and then boiling in a water bath to reduce the volume of aqueous extract, which is then homogenized and filtered. The filtrate is concentrated to a smaller volume, lyophilized, and powdered. The lyophilized powder is extracted with hexane to remove oils and lipids. The oil-free lyophilized powder is dissolved in ethanol solvent and extracted for eight hours under reflux, and filtered. The volume of ethanol is reduced by a rotary evaporator, and a first off-white precipitate (sample A-1) is collected, washed with ethanol, and dried at 80°C. Mass spectrometry shows a molecular weight of 200.16447 g mol-1, and an empirical formula of C9H16N2O3 is assigned. Intraperitoneal injection of mice with 50 mg/kg of A-1 twenty minutes prior to injection with strychnine protected the mice from strychnine-induced convulsions to the same extent as phenobarbitone (phenobarbital).	SAPTO	SA119410057+
289.	JOSE CARLOS MENENDEZ RAJU SURESH KUMAR ABDULRAHMAN ALMANSOUR KOTRESHA DUPADAHALLI NATARAJAN ARUMUGAM	119410056	2021-07-07	Anti-Cancer Compound	An anti-cancer compound is a compound having the following structural formula: 4 or a pharmaceutically acceptable salt thereof.	SAPTO	SA119410056+
290.	AHMAD JOMAH OBAIDULLAH ABD EL-GALIL AMR ABDULRAHMAN ALMEHIZIA MOHAMED AL-OMAR MOHAMMED MATER ALANAZI NAWAF ABDULAZIZ ALSAIF	119410260	2021-07-04	URSOLIC ACID DERIVATIVES	An ursolic acid derivative can have the following structural formula: The ursolic. acid derivative exhibits potent selective calcium channel blocker activities and may be used to treat a disease or condition for which calcium channel regulation is useful.	SAPTO	SA119410260+
291.	IBRAHIM HOTAN ALSOHAMI AYMAN A GHFAR AYOUB ABDULLAH ALQADAMI MOONISALI KHAN ZEID ABDULLAH ALOTHMAN MAZOOM RAZA SIDDIQUI	119410035	2021-07-27	Magnetic Polymer Nanocomposite for Removal of Divalent Heavy Metal Ions from Water	The magnetic polymer nanocomposite for removal of divalent heavy metal ions from water is magnetic nanocomposite having a core of magnetite (Fe3O4) in a shell of branched polyhydroxystyrene (BHPS), designated as Fe3O4@BHPS. The nanocomposite is synthesized by co-precipitation in alkali solution. Testing showed the nanocomposite reached 93% and 80% Pb(II) and Cd(II) adsorption, respectively, in 30 minutes, attaining equilibrium in 120 minutes. The maximum adsorption capacities of Pb(II) and Cd(II) at 298K were 186.2 and 125 mg/g,	SAPTO	SA119410035+

					respectively. After adsorption, the nanocomposite with the heavy metal(s) adsorbed thereto was easily removed from aqueous solution by application of a magnetic field.		
292.	AHMED BAKHEIT HAMAD ALKAHTANI MOHAMED AL-OMAR NAGY MAHMOUD KHALIFA	119400612	2021-07-28	PYRIDO[2,3-d] PYRIMIDINES AS ANTICANCER AGENTS	The pyrido[2,3-d]pyrimidine derivatives as anticancer agents include 5-(substitutedphenyl)-2-(3 -methyl-5-oxo--2H-pyrazol-1 (5H)-yl)-7-(pyridin-3-yl)pyrido[2,3-d]pyrimidin-4(3H)-one derivatives having the formula: where R is hydrogen; 2-halo, 3-halo, or 4- halo (Cl, Br, or F); 2-methoxy, 3-methoxy, or 4- methoxy (OCH3); 2-nitro, 3-nitro, or 4-nitro (NO2); 4-isopropyl, 4-methyl, or 4-cyano (CN); 2-hydroxy or 3-hydroxy (OH), 3-chloro and 5-chloro; 2-methoxy and 5-methoxy, 3-methoxy and 5-methoxy, or 3-methoxy and 4-methoxy; 3,4,5-trimethoxy; or 2-hydroxy and 4-hydroxy; or a pharmaceutically acceptable salt thereof. The derivatives may be useful in treating various cancers, including hepatic, colon, prostate, breast, and lung cancer.	SAPTO	SA119400612+
293.	HAZEM GHABOUR HAMAD AL-LOHEDAN RAIS AHMAD KHAN SARTAJ TABASSUM FOHAD MABOOD HUSAIN MOHD SAJID ALI	118400087	2021-07-04	ANTI-QUORUM AND DNA CLEAVING AGENT	The anti-quorum and DNA cleaving agent is directed to a ruthenium complex formulated from dichloro-(ŋ6-p-cymene) ruthenium(II) dimer and 2-chloroquinoxaline, the complex having the formula: The reaction cleaves the dimer, leaving a half-sandwich ruthenium complex with an ŋ6 coordination bond to the arene ligand and an Ru-N bond attaching the chloroquinoxaline to the ruthenium complex. The agent has an anti-quorum sensing effect on bacteria, inhibiting the formation of biofilm and inhibiting bacterial virulence. The agent also binds to DNA and may cleave the DNA, e.g., at the N7 base pair of guanine, due to a hydrolytic mechanism, suggesting potential use as an anticancer or antitumor agent.	SAPTO	SA118400087+
294.	AHMED ABD ELREHIM ALI BASEM SAYED AHMED ABDULLAH AL-DOSS MOHAMMED ZAKRI MOHAMMED AL-SALEH	118400188	2021-07-27	Nanobody Against Begomoviruses	A nanobody directed against begomoviruses is capable of selectively binding to ToLCSDV viral particles, TYLCV particles, and/or other begomoviruses. The nanobody includes an amino acid sequence of SEQ ID NO: 2.	SAPTO	SA118400188+
295.	MOHAMED AL-OMAR MASHOOQ AHMAD BHAT	118400092	2021-07-07	ANTIHEPATOTOXIC AGENTS	Antihepatotoxic agents include dihydropyrimidinone derivatives with 1,4- benzodioxane. The antihepatotoxic agents are compounds having the structural formula represented by Formula 1: (Formula 1) wherein each Z independently represents 0, N or S; X represents 0 or S; R represents aryl, substituted aryl, heteroaryl, or substituted heteroaryl; and pharmaceutically acceptable salts of these compounds.	SAPTO	SA118400092+
296.	TANSIR AHAMAD JAHANGEER AHMED ZEID A AL-OTHMAN SAAD M ALSHEHRI MU NAUSHAD	117390141	2021-07-04	METHOD FOR PREPARING ADSORBENT FOR REMOVING ORGANIC POLLUTANTS FROM WATER	A method for preparing an adsorbent for removing organic dyes from water includes reacting egg white with hydrochloric acid. The reaction can include mixing egg white with water to form a solution, and adding the acid to the solution to form a precipitate. The precipitate can be filtered, washed, and dried to provide the adsorbent. The adsorbent can be contacted with wastewater contaminated with organic pollutants to remove the organic pollutants from the wastewater. The organic pollutants can include p-nitrophenol. FIG. 1	SAPTO	SA117390141+
297.	AHMED MOHAMMED NABAWY ELSAYED MOHMED SHERIF KHALIL ABDELRAZEK KHALIL	118390442	2021-07-27	Method of Preparing A Metal Matrix Nanocomposite	A method for synthesizing a metal matrix nanocomposite (MMNC) is an in-situ synthesis technique for preparing a metal matrix with ceramic reinforcements dispersed homogenously therein. The method includes mixing a base metal matrix material with two or more ceramic-forming elements to form a mixture; blending the mixture; drying the mixture; ball milling the mixture with a plurality of milling balls to form a milled mixture; using induction heating to form a melt flow and induce electromagnetic forces; and initiating a plurality of stirring vortexes in the melt flow to form the metal matrix nanocomposite. Fig. 1.	SAPTO	118390442
298.	AYMAN ATTA HAMAD AL-LOHEDAN ABDELRAHMAN EZZAT MAHMOOD ABDULLAH	118390457	2021-07-28	Synthesis of bimetallic oxide nanocomposites	A method of synthesizing bimetallic oxide nanocomposites includes the steps of: providing a first metal salt solution; adding an oxidizing agent to the first metal salt solution while degassing the solution with an inert gas; heating the first metal salt solution; adding a second metal salt solution to the heated first metal salt solution to form a reaction mixture; adding a solution comprising a poly (ionic liquid) into the reaction mixture; adding a first base into the	SAPTO	118390457

					reaction mixture; adding a second base while stirring and maintaining a temperature ranging from about 40°C to about 65°C to provide a solution including a bimetallic oxide nanocomposite precipitate. The first metallic salt solution can include FeCl3 dissolved in water. The second metallic salt solution can include CuCl2 dissolved in water. The bimetallic oxide nanocomposites can be combined with epoxy resin to coat a steel stubstrate. Fig. 1.		
299.	TANSIR AHAMAD JAHANGEER AHMED ZEID A AL-OTHMAN SAAD M ALSHEHRI MU NAUSHAD	117390140	2021-07-27	METHOD FOR PREPARING AN ADSORBENT FOR REMOVINGORGANIC DYES FROM WATER	A method for preparing an adsorbent for removing organic dyes from water includes providing a volume of egg white, adding a volume of formaldehyde to the volume of egg white to form a mixture, maintaining a pH of the mixture at about pH 8.5, stirring the mixture until a viscous product is formed, and washing and drying the product to provide the adsorbent. FIG. 1.	SAPTO	117390140
300.	REFAT AHMED ELSHEIKHY MOSLEH ALI ALSHAMRANI	117390095	2021-07-27	METHOD OF EXTINGUISHING OR RETARDING FIRE USING NANO-CLAY	A method of extinguishing or retarding fire can include disposing nano-clay onto the fire to retard or extinguish the fire. The nano-clay can be in the form of a powder. The powder can include nanoparticles having a particle size of about 1 nm to about 50 nm. The nano-clay can be used alone or mixed with water. Fig. 2.	SAPTO	SA117390095+
301.	HANAN NEJER SAHIL ALOTAIBI SARA MOHAMMED AL TAWEEL HUDA AHMED HANASH ALSHEHRI	117380709	2021-07-28	BITE REGISTRATION BLOCK AND BITE REGISTRATION KIT INCLUDING THE SAME	The bite registration block is used for recording the relation between a patient's maxillary and mandibular arches for proper fabrication of a fixed dental prosthesis, or prostheses, such as fixed crowns or the like. The bite registration block is particularly adapted for use when a patient's prepared teeth are opposed by an edentulous arch (i.e., opposed by an area of missing teeth). The bite registration block is formed from a resilient material, such as a suitable type of plastic or the like, and is formed as a block having opposed upper and lower surfaces, a pair of laterally opposed side surfaces, and a pair of longitudinally opposed side surfaces. The upper surface defines a concave, longitudinally extending recess for positioning about an edentulous region of the patient's jaw. FIG. 1	SAPTO	SA117380709+
302.	CHANDRASEKAR BALACHANDRAN SAVARIMUTHU IGNACIMUTHU VEERAMUTHU DURAIPANDIYAN NAIF ABDULLAH AL-DHABI	118400264	2021-06-02	Process For Obtaining A Naphthoquinone Derivative From Streptomyces Sp	The process for obtaining a naphthoquinone derivative from Streptomyces sp. includes providing a seed inoculum of a strain of Streptomyces sp.; culturing the Streptomyces sp. in a culture nutrient medium; centrifuging the culture nutrient medium to provide a supernatant and a biomass precipitate; admixing a water immiscible solvent to the supernatant to produce a water immiscible solvent extract layer and a water layer; and isolating the antimicrobial and cytotoxic compound from the water immiscible solvent extract layer by performing silica gel chromatography.	SAPTO	SA118400264+
303.	SAID ABDEL-KHALIK KEVIN SCHOONOVER HANY AL-ANSARY	117380653	2021-06-16	SPRAY NOZZLE APPARATUS	The present disclosure introduces a nozzle apparatus and method. In one embodiment, a spray nozzle apparatus is described. The spray nozzle apparatus includes a plurality of flow channels formed by the combination of a: sprayhead, a major element, and a minor element. The spmyhead may have a plurality of holes. The major element is retained within the sprayhead by a nozzle nut and spring, allowing a first annular gap to form between the sprayhead and the maior element. The minor element is retained within the maior element by a second nozzle nut and second spring, allowing a second annular gap to form between the major element and the minor element. The minor element may have an axial hole. Other embodiments also are described. FIG. 1	SAPTO	SA117380653+
304.	AMEL LAREF KHALID MUSTAFA ORTASHI AWATIF AHMED HENDI MANAL AHMED AWAD	118390613	2021-06-07	GREEN SYNTHESIS OF REDUCED GRAPHENE OXIDE USING NIGELLA SATIVA SEED EXTRACT	The green synthesis of reduced graphene oxide nanoparticles using Nigella sativa seed extract comprises the steps of mixing a quantity of soot or other carbon source in an acid solution while stirring to obtain a solution; adding a first oxidant gradually into the solution to oxidize the soot and obtain a suspension; stirring the suspension while maintaining the temperature of the suspension at about 35°C; adding Nigella sativa seed extract to the suspension while raising the temperature of the suspension to about 60°C; adding hydrogen peroxide to the suspension; and isolating the reduced graphene oxide nanoparticles by centrifugation.	SAPTO	SA118390613+

305.	SYED HIDAYATHULLA MOHAMED AL-OMAR MASHOOQ AHMAD BHAT NAWAF ABDULAZIZ ALSAIF	119410084	2021-04-19	SULINDAC DERIVATIVES	The sulindac derivatives are compounds of the formula: wherein R is one of twenty-five substituted or unsubstituted phenyl substituents; and pharmaceutically acceptable salts thereof. The sulindac derivatives are synthesized by refluxing sulindac hydrazide with appropriately substituted benzaldehydes in the presence of ethanol and catalytic amounts of glacial acetic acid. The sulindac derivatives may be used as active ingredients in pharmaceutical compositions for the treatment of inflammation or inflammatory diseases. The sulindac derivatives may also be used as analgesic and/or gastric sparing agents.	SAPTO	SA119410084+
306.	KHALID MUSTAFA ORTASHI RABAB ABD EL MONEIM EL DIB SHAZA MOHAMED AL-MASSARANI AWATIF AHMED HENDI MANAL AHMED AWAD	117390017	2021-02-17	SYNTHESIS OF NANOPARTICLES USING BALANITES AEGYPTIACA	A method of preparing nanoparticles from desert date can include providing a metal salt solution comprising metal ions; providing desert date extract solution that comprises a reducing agent, and combining the metal ion solution and the desert date extract solution while stirring at a temperature in the range of 25 °C to 100 °C to produce metal or metal oxide nanoparticles. The metal nanoparticles can be gold nanoparticles. The metal oxide nanoparticles can be zinc oxide nanoparticles. The nanoparticles can be used to inhibit the growth or proliferation of a cancer cell and/or microorganisms. Fig. 1.	SAPTO	SA117390017+
307.	AYMAN EL-FAHAM [SA]; ZEID ALOTHMAN [SA]; KAREEM YOUSSIF MAHMOUD [SA] +	117380667	2021-04-11	Functionalizable Monolithic Platforms	The method of preparing a functionalizable monolithic platform includes the steps of: functionalizing the silanol groups on a support having silanol groups or the ketone groups on a support having ketone groups with an organic compound having a vinyl group; and copolymerizing the alkenyl-functionalized silanol or ketone groups with itaconic anhydride monomers and vinyl monomers and/or a crosslinker having at least two vinyl reactive groups in a solvent by adding a suitable initiator for a time and temperature or radiation energy sufficient to thereby complete the copolymerization reaction process. FIG 1B.	SAPTO	SA117380667+
308.	PROMY VIRK [SA]; AWATIF AHMED HENDI [SA]; LULWAH SALEH AL-HASSAN [SA]; MANAL AHMED AWAD [SA]; MAI ABDELRAHMAN ELOBEID [SA]; NOUF ABDALLAH AL-GI-IAMDI [SA] +	117380666	2021-03-04	Method of Synthesizing Nanoparticles Hesperetin	The present invention relates to bio-nanotechnology and particularly, to a method of preparing non-metal hesperetin nanoparticles for use in antioxidant therapy to treat lead-induced stress in mammals includes dissolving hesperetin in an organic solvent to form a solution; spraying the solution in boiling water while applying ultrasonic energy to form a mixture; and stirring the mixture for at least about 15 minutes at a speed of about 200-800 rpm to obtain the hesperetin nanoparticles. FIG. 1 A	SAPTO	SA117380666+
309.	REFAT AHMED EL-SHEIKHY [SA]; MOSLEH ALI AL-SHAMRANI [SA] +	117380722	2021-03-02	EXPANSIVE SOIL RESISTANT FOUNDATION SYSTEM	The expansive soil resistant foundation system includes a foundation frame having footings forming a grid pattern. The grid pattern contains a plurality of spaces within the pattern. Each space defines a main swell duct. Each main swell duct may be provided with one or more sub-swell ducts. The swell ducts permit free expansion and contraction of the expansive soil. A vent extends from each swell duct to expel trapped air. A drainage system is distributed throughout the foundation frame to eliminate accumulation of underground water. The swell ducts, vents, and the drainage system alleviate potential pressures that can be exerted on the foundation from the expansion and contraction of the expansive soil, which can lead to cracks and structural failure. FIG. 1A	SAPTO	117380722
310.	RAJABATHAR JOTHI RAMALINGAM [SA]; JUDITH VIJAYA [SA]; JESU DOSS [SA]; HAMAD AL-LOHEDAN [SA] +	119400913	2021-06-07	Template-Free Method of Preparing Zeolites from Biomass	A template-free method of preparing zeolites from biomass can include using rice husk ash waste material as a precursor material. The zeolites can include ZSM-5 zeolites, such as, hierarchical pure zeolites and metal-loaded (Cu, Ni) ZSM-5 zeolites. This method allows for production of zeolites in a low cost and environmentally friendly manner. These ZSM-5 zeolites may be used for numerous applications, including killing cancer cells. The cancer cells may be human lung cancer cells.	SAPTO	SA119400913+
311.	AYMAN ATTA [SA]; HAMAD AL-LOHEDAN [SA]; MAHMOOD ABDULLAH [SA] +	119400652	2021-06-09	Hydrophobic Nanoparticle Compositions for Crude Oil Collection	Hydrophobic nanoparticle compositions include silica nanoparticles capped with asphaltene succinimide alkoxy silane (ASAS). The nanoparticles can have a particle size ranging from about 20 nm to about 1 0000 11m. The nanoparticle compositions can be used as a coating for raw sand to provide a super-hydrophobic sand. The nanoparticle compositions can be used as a coating for a polyurethane (PU) sponge to provide a super-hydrophobic sponge. The super-	SAPTO	SA119400652+

					hydrophobic sand and/or super-hydrophobic sponge can be used to collect crude oil deposited in aquatic environments as a result of petroleum crude oil spills.		
312.	RAJABATHAR JOTHI RAMALINGAM [SA]; JUDITH VIJAYA [SA]; HAMAD AL-LOHEDAN [SA]; SIVA CHIDAMBARAM [SA] +	119400351	2021-06-23	Method of Making a Porous Nano-Carbon Electrode from Biomass	The method of making a porous carbon electrode is a chemical activation-based method of making a porous nanocarbon electrode for supercapacitors and the like. Recycled jackfruit (Artocmpus heterophyllus) peel waste is used as a precursor carbon source for producing the porous nanocarbon. A volume of jackfruit (Artocarpus heterophyllus) peel is collected, dried and then heated under vacuum to produce precursor carbon. The precursor carbon is mixed with phosphoric acid (H3PO4) to form a mixture, which is then stirred, dried and heated to yield porous nanocarbon. The porous nanocarbon is mixed with a binder, such as poly (vinylidenedifluoride), acetylene black, and an organic solvent, such as n-methyl pyrrolidinone, to form a paste. This paste is then coated on a strip of nickel foil to form the porous carbon electrode.	SAPTO	SA119400351+
313.	HATEM SALAMA ALI [SA]; KHALID MUSTAFA ORTASHI [SA]; ZEINAB KORANY MOHAMMED HASSAN [SA]; AWATIF AHMAD HENDI [SA]; MOHAMED FEKRY SERAG ELDIN [SA]; MOHAMED MAHMOUD HAFZ [SA]; MANAL AHMED AWAD [SA]; HANY MOHAMED YEHIA [SA] +	118400307	2021-06-07	Method of Synthesizing Doum Nanoparticles	Doum nanoparticles can be synthesized by drying Doum fruit, reducing the dried Doum fruit to a powder or flour, and subjecting the powder to acid hydrolysis or alcohol hydrolysis to provide Doum nanoparticles. The Down nanoparticles can be used as a food preservative. When compared to bulk Doum particles, the Down nanoparticles can provide substantially increased antibacterial activity.	SAPTO	SA118400307+
314.	MOHAMED AL-OMAR [SA]; MASHOOQ AHMAD BHAT [SA] +	119400352	2021-06-23	DIHYDROPYRIMIDINONE DERIVATIVES	A dihydropyrimidinone derivative includes a compound having a chemical structure according to Formula 1: wherein Z is selected from O, S and N; Y is N X is selected from O and S; and R represents aryl, substituted aryl, heteroaryl, or substituted heteroaryl, wherein the substituted aryl or substituted heteroaryl have one or more substituents selected from the group consisting of halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, nitro, hydroxyl, alkylthio, alkylamino, heteroaryl, aryloxy, haloaryloxy, arylthio, arylamino, and pharmaceutically acceptable salts thereof. Fig.1.	SAPTO	SA119400352+
315.	MOHAMED AL-OMAR [SA]; MASHOOQ AHMAD BHAT [SA] +	118390677	2021-06-09	DIHYDROPYRIMIDINONE DERIVATIVES	A dihydropyrirnidinone derivative includes a compound having a chemical structure according to Formula 1: Wherein Z is selected from Ch2, O, and N; X is selected from O and S; and R represents aryl, substituted aryl, heteroaryl, or substituted heteroaryl, wherein the substituted aryl or substituted heteroaryl have one or more substituents selected from the group consisting of halogen, alkyl, haloalkyl, alkoxy, haloaikoxy, nitro, hydroxyl, alkylthio, alkylarnino, heteroaryl, aryloxy, haloaryloxy, arylthio, arylamino, and pharmaceutically acceptable salts thereof. The present subject matter also relates to a method of making a dihydropyrimidinone derivative, a method of treating a gastrointestinal disease, a method of treating an ulcer, a pharmaceutical composition, and a method of making a pharmaceutical composition.	SAPTO	SA118390677+
316.	JAMAL MOHAMMED ALI KHALED [SA]; HAZEM AHMED GHABBOUR [SA]; SALIM S AL-SHOWIMAN [SA]; MUJEEB ABDULLAH SAEED SULTAN [SA]; NAIYF SULTAN HELIAL ALHARBI [SA]; YAHIA NASSER MABKHOT [SA] +	118390667	2021-06-07	SYNTHESIS AND ANTIMICROBIAL USE OF A TRITHIOCARBONATE DERIVATIVE	A method for preparing a trithiocarbonate derivative compound includes reacting ethyl cyanoacetate, carbon disulfide (CS2) and ethyl chloroacetate in the presence of potassium carbonate (K2C03) in an organic solvent to produce 2,2'- (thiocarbonylbis(sulfanediyl))diacetate compound, represented by the structural formula:	SAPTO	SA118390667
317.	SAHAR FAISAL ALBARAKATI [SA]; FERDOUS MOHAMMED TAHER MULLA BUKHARY [SA]; MOHAMMED TAHER MULLA BUKHARY [SA] +	117380528	2021-06-16	ORTHODONTIC BRACKET	The orthodontic bracket includes a base and a bracket body extending from the base. The bracket body includes a lower labial surface on which a first indicia is displayed and a plurality of tie-wings extending from comer portions of the base on which a second indicia is displayed. The labial surfaces face the patients lips, once positioned on the patient's tooth. The first indicia can be a number corresponding to a specific tooth in a patient's mouth to which the bracket is designed to attach. The second indicia can be a dot positioned on a tie-wing associated with a specific quadrant of the patient's mouth. FIG.1	SAPTO	SA117380528+

318.	AYMAN ATTA [SA]; HAMAD ALKATHLAN [SA]; HAMAD AL-LOHEDAN [SA]; ABDULRAHMAN EZZAT [SA]; MAHMOUD SAEED ABDULLAH [SA]; MERAJUDDIN KHAN [SA] +	118400009	2021-06-09	Biosynthesized Magnetic Metal Nanoparticles For Oil Spill Remediation	The biosynthesized magnetic metal nanoparticles for oil spill remediation are magnetic nanoparticles capped with an extract of Anthemis pseudocotula. The magnetic nanoparticles are formed by co-precipitation of ferric chloride hexahydrate and ferrous chloride tetrahydrate in an ethanol solution of the extract with the dropwise addition of ammonium hydroxide to raise the pH to between 8 and 11. The extract may be an extract of the aerial parts of Anthemis pseudocotula in a low polar extraction solvent, such as an n-alkane solvent or mono-di-, or trichloromethane. The extract is hydrophobic, improving dispersion of the magnetic nanoparticles in oil spills in seawater, resulting in 90% removal of oil for a 1:10 ratio of nanoparticles:oil by weight.	SAPTO	SA118400009+
319.	HATEM SALAMA ALI [SA]; DINA METWALLY HASANIN [SA]; REEM ATTA ALAJMI [SA]; MOHAMED SERAG EL-DIN [SA]; MANAL AHMED AWAD [SA]; MANAL FAWZY ELKHADRAGY [SA]; HANY YEHIA [SA] +	119410038	2021-04-11	Methanol Extract of Grape Seed Nanoparticles	The methanol extract of grape seed nanoparticles is prepared from grape seeds washed in distilled water and oven-dried at 60°C for 12 hours. The seeds are milled or ground to a powder and sieved to a maximum size of 0.355 mm. The powder is added to concentrated HCl and stirred at 3000 rpm at 30°C for one hour, and then distilled water is added with stirring for an additional 2 hours. The mixture is filtered, and the marc is dried to recover grape seed nanoparticles. The nanoparticles are added to methanol at the rate of 100 mg/ml, left in a shaker for 24 hours at room temperature, centrifuged, filtered, and the resulting extract (the supernatant) is recovered. Agar well diffusion testing showed that the nanoparticle extract exhibited greater antibacterial activity than a methanol extract of grape seeds alone, and testing showed greater antioxidant levels in the nanoparticle extract as well.	SAPTO	SA119410038+
320.	AMANI SHAFEEK AWAAD [SA]; AMAL AHMED SAFHI [SA]; REHAM MOSTAFA EL-MELIGY [SA]; SHEKHAH SAUD ALMOQREN [SA]; FATMAH ALI AL-ASAMARY [SA]; YARA MOHAMED ZAIN [SA] +	119400384	2021-06-23	Gastroprotective Extracts of Sonchus Oleraceus L.	The gastroprotective extracts of S. oleraceus L. are ethanol extracts (including the initial ethanol extract and serial extractions of the marc in ethanol), which are concentrated a low temperature to obtain a gummy residue that is dissolved in water. Lipoidal compounds are removed from aqueous extracts by filtration, and serial extracts proceeding from the aqueous extracts using chloroform to obtain low polarity phenolic compounds and n-butanol to obtain high polarity compounds and any remaining compounds. These extracts may be used to treat conditions of the stomach and colon including preventing peptic ulcers and treating ulcerative colitis.	SAPTO	SA119400384+
321.	MOHAMED AL-OMAR [SA]; NAGY MAHMOUD KHALIFA [SA] +	119400353	2021-06-09	Substituted Pyrazole Derivative	A substituted pyrazole derivative includes a compound of the formula: or a pharmaceutically acceptable salt thereof.	SAPTO	SA119400353+
322.	AYMAN AL-JAZAERI [SA] +	118400034	2021-06-02	Wound Closure Device	The wound closure device includes an outer tubular housing, an inner shaft that extends through the housing, a needle control assembly at least partially disposed with the housing, a pair of hollow needles in communication with the needle control assembly, sutures in the housing, and a suture deployment assembly connected to a distal end of each suture and to the inner shaft. The needles can be inserted into a tissue to deposit the sutures and suture anchors at or near wound edges. The needles can thereafter be completely withdrawn from the tissue. Fig. 1.	SAPTO	SA118400034+
323.	PERIASAMY VAIYAPURI SUBBARAYAN [SA]; JEGAN ATHINARAYANAN [SA]; ALI ABDULLAH ALSHATWI [SA] +	117390045	2021-03-04	Method Of Making A Three-Dimensional, Leaf-Based Scaffold	The method of making a three-dimensional, leaf-based scaffold for three-dimensional cell cultures includes washing a quantity of Ficus religiosa leaves, then treating the washed Ficus religiosa leaves in a sodium hydroxide solution to obtain alkali-treated Ficus religiosa leaves. The alkali-treated Ficus religiosa leaves are washed, and then superficial tissue is removed from the alkali-treated Ficus religiosa leaves to obtain Ficus religiosa leaf skeletons. The Ficus religiosa leaf skeletons are dried and then consecutively immersed in distilled water, a phosphate buffer saline solution, and plain Dulbecco's modified Eagle's medium (DMEM) to form the three-dimensional scaffolds for three-dimensional cell cultures. Each three-dimensional scaffold can be used for growing three-dimensional cell cultures, such as human mesenchymal stem cell cultures. Fig. 1.	SAPTO	SA117390045+

324.	ABD EL-GALIL AMR [SA]; ABDULRAHMAN ALMEHIZIA [SA]; MOHAMED AL-OMAR [SA] +	119400436	2021-06-23	ABIETIC ACID DERIVATIVES AS ANTI-TUMOR AGENTS	The abietic acid derivatives as anti-tumor agents are derivatives of abietic acid in which the hydroxyl entity (-OH) of the carboxyl entity is replaced by an electronegative substituent, which may be C6H5-0-, C6H5-S-, or C6H5-NH-, and a hydrogen atom on one of the rings is replaced by a hydroxyl (-OH) substituents, the derivatives having the formula: wherein X is O, S, or NH. The derivatives are formed by formation of an intermediate lactone from abietic acid, followed by reaction of the lactone with phenol, thiophenol, or aniline. All of the derivatives exhibited potent Sa-reductase inhibitor activity, both in vitro and in vivo, and anti-tumor activity with regard to two prostate cancer cell lines - LNCaP and PC-3. The intermediate lactones are also derivatives of abietic acid that exhibit anti-tumor activity.	SAPTO	SA119400436+
325.	RABAB ABD EL MONEIM EL DIB [SA]; SHAZA MOHAMED AL-MASSARANI [SA]; ADNAN JATHLAN AL-REHAILY [SA]; ALI ALI EL-GAMAL [SA]; MANAL AHMED AWAD [SA] +	118400224	2021-06-07	Synthesis of Nuxia Oppositifolia Nanoparticles	In one embodiment, synthesis of Nuxia oppositifolia nanoparticles includes providing a Nuxia oppositifolia powder; dissolving the powder in a first alcohol to provide a first alcohol extract; concentrating a filtrate from the first alcohol extract under reduced pressure to provide a dried alcohol extract; dissolving the dried alcohol extract in the first alcohol to provide a second alcohol extract; successively partitioning the second alcohol extract using n-hexane to provide an n-hexane extract; dissolving the n-hexane extract in a second alcohol and water to provide a first solution; and adding an acidic solution to the first solution to form a final solution including Nuxia oppositifolia nanoparticles.	SAPTO	SA118400224
326.	ABD EL-GALIL AMR [SA]; MOHAMED AL-OMAR [SA]; NAGY MAHMOUD KHALIFA [SA] +	118400023	2021-06-07	Glycyrrhetic Acid Derivatives	The glycyrrhetic acid derivatives can include: formula (2); or fonnula (3); or formula (4). The glycyrrhetic acid derivatives can be used to treat inflammation and/or ulcers.	SAPTO	SA118400023+
327.	AHMED NAGLAH [SA]; ABD EL-GALIL AMR [SA]; MOHAMED AL-OMAR [SA] +	118400187	2021-06-02	Oleanolic Acid Methyl Ester Derivatives	Oleanolic acid methyl ester derivatives demonstrate potent anti-diabetic activities. In in vitro anti-diabetic testing, the derivatives showed more potency regarding dipeptidyl peptidase-4 (DPP-IV) inhibitor activity, peroxisome proliferator-activated receptors (PPARs) agonist activity, and a-Glucosidase inhibitors activity, as compared to reference standards oleanolic acid and acarbose. In in vivo oral hypoglycemic testing, both acute and sub-acute studies demonstrated that the derivatives had high potency and long duration of action compared to the reference standards pioglitazone, acarbose and oleanolic acid.	SAPTO	SA118400187+
328.	RABAB ABD EL MONEIM EL DIB [SA]; SHAZA MOHAMED AL-MASSARANI [SA]; ALI ALI EL-GAMAL [SA]; MANAL AHMED AWAD [SA] +	118400097	2021-06-02	Synthesis of Ifflaionic Acid Nanoparticles	Synthesis of ifflaionic acid nanoparticles includes dissolving a powder of ifflaionic acid in an alcohol solution to form a first solution, adding the first solution to an aqueous solution under ultrasonic conditions to produce a sonicated solution, stirring the sonicated solution for a duration of time to produce a mixture, and freeze-drying the mixture to provide the ifflaionic acid nanoparticles.	SAPTO	SA118400097+
329.	RABAB ADB EL MONEIM EL DIB [SA]; SHAZA MOHAMED AL-MASSARANI [SA]; ALI ALI EL-GAMAL [SA]; MANAL AHMED AWAD [SA] +	118390649	2021-06-16	Synthesis Of Nuxia Oppositifolia Nanoparticles	Synthesis of Nuxia oppositifolia nanoparticles includes providing an extract of Nuxia oppositifolia, dissolving the extract in alcohol to provide a mixture, adding water to the mixture to provide an aqueous solution, adding an acidic solution to the aqueous solution to form a final solution including Nuxia oppositifolia nanoparticles; and centrifuging the final solution to isolate the Nuxia oppositifolia nanoparticles.		SA118390649+
330.	MOHAMMAD REZAUL KARIM [SA]; MUHAMMAD OMER AIJAZ [SA]; NABEEL H AL-HARTHI [SA] +	118390581	2021-04-11	ANTISEPTIC AND FRAGRANCE-FREE SOAP	The antiseptic and fragrance-free soap includes about 5% to 30% percent by weight of deionized water, about 3% to 10% by weight of caustic soda, about 25% to 90% by weight of vegetable fat, and about 0.1% to 1% by weight of antibacterial nanoparticles. The vegetable fat can be selected from the group consisting of olive oil, coconut oil, palm oil, almond oil, jojoba oil, shea butter, or a combination thereof. The antibacterial nanoparticles are preferably silver nanoparticles made by any conventional method.		SA118390581+
331.	ZEINAB KORANY MOHAMED HASSAN [SA]; OTHMAN A AL-SHABANAH [SA]; MOHAMED MAHMOUD HAFEZ AHMED [SA]; MANAL AHMED AWAD [SA] +	117390142	2021-04-11	SYNTHESIS OF RUTIN NANOTUBES	The synthesis of rutin nanotubes includes the steps of providing rutin powder; mixing the rutin powder with a solvent mixture of methanol, dimethyl sulfoxide, and hydrochloric acid to prepare a rutin solution; adding the rutin solution to boiling water dropwise; maintaining the rutin solution and water under ultrasonic conditions at room temperature for about 20 minutes;		SA117390142+

					continuously stirring the solution until rutin nanoparticles are formed; and isolating the rutin nanotubes by centrifugation. A method of controlling the metastatic activity of cancer cells includes administering an effective amount of rutin nanotubes and nanoparticles prepared as described above to a site of metastatic activity in a mammal. Fig. 2.		
332.	PERIASAMY VAIYAPURI SUBBARAYAN [SA]; JEGAN ATHINARAYANAN [SA]; KHALID ABDULKARIM ALATIAH [SA]; ALI ABDULLAH ALSHATWI [SA] +	117390093	2021-06-16	METHOD OF PRODUCING CELLULOSE NANOSTRUCTURES	A method of producing cellulose nanostructures includes obtaining Bassia eriophora plant biomass and treating the Bassia eriophora plant biomass to produce the cellulose nanostructures. The cellulose nanostructures can be used as a three-dimensional scaffold for growing three-dimensional cell cultures, such as human mesenchymal stem cell cultures. The cellulose nanostructures can be cellulose nanofibrils. Fig. 2.		SA117390093+
333.	AHMED MAHMOUD ALAFEEFY [SA]; AMANI SHAFEEK AWAAD [SA]; REHAM EL-MELIGY [SA] +	117390096	2021-04-11	ANTI-ULCERATIVE COLITIS COMPOUND	Anti-ulcerative colitis compounds include quinazoline derivatives having the following structural formula: wherein R is H, OH, or OCH3, R1 is OH or OCH3, and R2 is OCH3, or a pharmaceutically acceptable salt thereof.		SA117390096+
334.	A M A AL-AHMARI [SA]; ALI MOHAMED AHMED ELTAMALY [SA]; MAMDOOH SAUD AL-SAUD [SA] +	117390092	2021-03-04	Multi-Rotor Vertical Axis Wind Turbine	The multi-rotor vertical axis wind turbine includes a plurality of vertical wind rotors rotatably mounted on support arms extending from the vertices of upper and lower polygonal frame members. The upper end of each rotor is journaled into a plain bearing, and a lower portion is journaled into a freewheeling clutch bearing. A pulley wheel is mounted on the lower end of each rotor. A generator is centrally located beneath the lower frame member and has a rotatable armature shaft extending vertically upward. The pulley wheel of each vertical rotor is connected to the armature shaft by its own separate endless belt. Fig. 1.		SA117390092+
335.	PROMY VIRK [SA]; AWATIF AHMED HENDI [SA]; LULWAH SALEH AL-HASSAN [SA]; MANAL AHMED AWAD [SA]; MAI ABDELRAHMAN ELOBEID [SA]; NOUF ABDALLAH AL-GI-IAMDI [SA] +	117380634	2021-06-16	SYNTHESIS OF NARINGENIN NANOPARTICLES	A method of preparing naringenin nanoparticles comprises dissolving naringenin in an organic solvent to form a solution; adding the solution to boiling water under ultrasonic 5 conditions to form a mixture; and stirring the mixture to obtain the naringenin nanopmiicles. The organic solvent can be at least one of methanol, ethanol, dichloromethanc and chloroform. Ultrasonic conditions can include applying ultrasonic energy at a frequency of 30-60kHz and a power of 100 watts for about 20-30 minutes to the mixture. FIG 1A		SA117380634+
336.	HATEM SALAMA ALI [SA]; DINA METWALLY HASANIN [SA]; REEM ATTA ALAJMI [SA]; MOHAMED SERAG EL-DIN [SA]; MANAL AHMED AWAD [SA]; MANAL FAWZY ELKHADRAGY [SA]; HANY YEHIA [SA] +	119400765	2021-06-07	GUAVA SEED (PSIDIUM GUAJAVA) NANOPARTICLES AS ANTIBACTERIAL AGENT	The guava seed (Psidium guajava) nanoparticles as an antibacterial agent are prepared from guava seeds that have been washed, dried, and ground to powder of less than 1 mm diameter. The powder is reduced to nanoparticle size (less than 100 nm diameter) by adding the powder to a solution of concentrated hydrochloric acid (38% w/w) and stirring the mixture at 3000 rpm at room temperature. The resulting nanoparticles are filtered through a Millipore membrane filter and dried. Agar well diffusion studies showed significant antibacterial activity against various Gram positive and negative species commonly implicated in food contamination. Further testing showed the guava seed nanoparticles have significant antioxidant and radical scavenging content, suggesting that guava seed nanoparticles may serve as an antibacterial agent.		SA119400765+
337.	MOHAMED AL-OMAR [SA]; MASHOOQ AHMAD BHAT [SA] +	119400368	2021-06-07	Dihydropyrimidinone Derivatives	A dihydropyrimidinone derivative having a chemical structure according to Formula 1: wherein Z is selected from N and O; X is selected from O and S; and R represents aryl, substituted aryl, heteroaryl, or substituted heteroaryl, wherein the substituted aryl or substituted heteroaryl have one or more substituents selected from halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, nitro, hydroxyl, alkylthio, alkylamino, heteroaryl, aryloxy, haloaryloxy, arylthio, arylamino, and pharmaceutically acceptable salts thereof.		SA119400368+
338.	ERENIUS TOPPO [SA]; SYLVESTER DARVIN [SA]; P PANDIKUMAR [SA]; SAVARIMUTHU IGNACIMUTHU [SA]; NAIF ABDULLAH AL-DHABI [SA] +	119400336	2021-06-23	(ISOANDROGRAPHOLIDE- 19-PROPIONATE FOR TREATMENT OF NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD	Isoandrographolide-19-propionate for treatment of non-alcoholic_ fatty liver disease (NALFD) relates to the compound isoandrographolide-19-propionate (IAN-19P) and pharmaceutically acceptable salts thereof. The compound is synthesized by reaction of isoandrographolide with anhydrous propwmc acid m the presence of N,N'- dicyclohexylcarbodiimide and 4-dimethylaminopyridine. In vitro testing shows that isoandrographolide-19-propionate has lower toxicity than andrographolide, but has significantly high activity at a concentration of 50 ~tM.		SA119400336+

					IAN-19P produced normal triglyceride levels and significantly lowered lipoperoxide formation in palmitate-oleate induced steatotic HepG2 cells, and also lowered AL T leakage from the treated cells.		
339.	ISMAIL KHALIL WARAD [SA]; ANAS KHALED ABED ALALI [SA]; ABDELKADER ZARROUK [SA]; ALI MOHAMMED ALSALME [SA]; FIRAS FANDI AWWADI [SA]; NABIL AHMED AL-ZEQRI [SA] +	119400329	2021-06-23	METHOD OF SYNTHESIZING (E)-1,2-DI(PYRIDIN-2-YL)ETHENE-1,2-DIOL	The method of synthesizing (E)-1 ,2-di(pyridine-2-yl)ethene-1 ,2-diol involves dimerization of 2-pyridinecarboxaldehyde (also referred to herein as "picolinaldehyde"). The synthesis of the desired ethene-1 ,2-diol is achieved using a Cu(II) catalyst to dimerize picolinaldehyde under mild conditions. Preferably, the Cu(II) catalyst is a Cu(II)/neocuproine (2,9-dimethyl-1,10-phenanthroline) complex, or other Cu(II)/phen complex. The reaction in this embodiment may occur at room atmosphere and in ambient light conditions using a water/ROB solvent. The exemplary ethene-1 ,2-diol product, (E)-1 ,2-di(pyridin-2-yl)ethene- 1 ,2-diol		SA119400329+
340.	REEM SIRAJ ALSULAIMANI [SA]; SARA NASSER ALDOSARY [SA] +	118400223	2021-06-16	INTEGRAL RESTORATION MATRIX SYSTEM	The integral restoration matrix system includes an arcuate frame having opposed upper and lower arcuate members and first and second opposed side members. The arcuate frame defines an open interior region. A matrix sheet is secured to the arcuate frame and extends across, and covers, the open interior region defined by the arcuate frame. First and second upper arcuate retaining arms are secured to, and extend from, respective upper ends of the first and second opposed side members. First and second lower arcuate retaining arms are secured to, and extend from, respective lower ends of the first and second opposed side members. A hemostatic mesh is secured to the lower arcuate member of the arcuate frame. Fig. 3.		SA118400223+
341.	BADER KHALID ALBALKHI [SA]; SAHAR FAISAL AL-BARAKATI [SA] +	117390177	2021-06-16	ORTHODONTIC HAND INSTRUMENT	The orthodontic hand instrument 100 includes a handle portion 110 having a first end 120 and an opposing second end 130, as well as a first shaft 125 extending outward from the first end 120 and a second shaft 135 extending outward from the second end 130, each shaft having a working end 127, 137. The working end of each shaft includes a stoop 131,141 having a gingival head 152 and an occlusal head 154, and a vertical slot 156 extending between the gingival head 152 and the occlusal head 154. Both the gingival head 152 and the occlusal head 154 of the stoop of each working end have a rectangular shape. The handle portion 110 may have a knurled surface 140,150 or other suitable griping surface for preventing the hand instrument from slipping out of the orthodontist's hand 100. Further, each shaft can include a tapered portion 129,139 adjacent to the corresponding working end. 123,133 Fig. 2.		SA117390177+
342.	PERIASAMY VAIYAPURI SUBBARAYAN [SA]; JEGAN ATHINARAYANAN [SA]; ALI ABDULLAH ALSHATWI [SA] +	118390585	2021-04-11	METHOD OF FABRICATING BIOCOMPATIBLE CELLULOSE NANOFIBRILS	The method of fabricating biocompatible cellulose nanofibrils produces cellulose nanofibrils from used agro-waste Borassus flabellifer leaf stalks. The method uses a three step process, including alkali treatment, bleaching, and acid hydrolysis to produce cellulose nanofibrils, which may be converted to pellets for storage. The pellets may be converted to a transparent film for cell attachment by dispersion in water and heating in a hot air oven. Testing shows that cellulose nanofibrils made by the method easily attract human mesenchymal stem cells and will be applicable for skin tissue engineering applications.		SA118390585+
343.	HAMAD AL-LOHEDAN [SA]; SARTAJ TABASSUM HASAN [SA] +	118400083	2021-06-09	Combination Microarray Patch For Drug Delivery And Electrochemotherapy Device	The combination microarray patch for drug delivery and electrochemotherapy device is a medical device for delivering two separate pharmaceutical preparations to a patient, as well as providing electrostimulation for electroactive pharmaceuticals. A first pharmaceutical preparation is manually delivered into the patient through a first set of drug delivery needles. Similarly, a second pharmaceutical preparation is manually delivered into a patient through a second set of drug delivery needles. A desired electrical potential may then be selectively applied across first and second sets of electrotherapy needles for electroporation to facilitate delivery of the pharmaceutical preparations. The second pharmaceutical preparation may be a conjugate of the first for targeted drug delivery.		SA118400083+
344.	AMANI SHAFEEK AWAAD [SA]; MOHAMED EL-DESOUKY ZAIN [SA]; MONERAH RASHED ALOTHMAN [SA]; NOUR KHALED	117380466	2021-06-16	METHOD FOR TREATING CANDIDIASIS	A method for treating candidiasis includes administering to a human or animal subject in need thereof, a therapeutically effective amount of an anti-candidiasis compound. The		SA117380466+

	AL-ANAZI [SA]; REHAM M EL-MELIGY [SA] +				anticandidiasis compound can include 3~-diglucoside-5, 12-28-oic acid. The anti-candidiasis can be isolated from an extract of Petriella setifera or other Petrie/la species. FIG. 1		
345.	RAISUDDIN ALI [SA]; IBRAHIM ALJUFFALI [SA]; AWS ALSHAMSAN [SA]; ZIYAD BINKHATHLAN [SA]; ABDULLAH ALOMRANI [SA] +	117380465	2020-08-05	POLY Ɛ-CAPROLACTONE-ETHOXYLATED FATTY ACID COPOLYMERS	A block copolymer comprising E-caprolactone units and polyoxyethylene stearate units, wherein the block copolymer has the following formula: wherein n, m, and pare integers greater than 0. The block copolymer is prepared by polymerizing (i) E-caprolactone and (ii) polyoxyethylene stearate in the presence of a catalyst such as stannous octoate. FIG.1		SA117380465+
346.	SARADH PRASAD [SA]; VADIVAL MASILAMANI [SA]; MOHAMAD SALEH ALSALHI [SA] +	118390228	2020-12-08	Temperature tuned conjugated polymer laser	The temperature tuned conjugated polymer laser 10 uses a thiophene-based conjugated polymer as the laser medium to produce an output laser beam having a wavelength tunable between approximately 552 nm and approximately 612 nm over a temperature range of the thiophene-based conjugated polymer between approximately 60°C and approximately 10°C, with an overall tunability of about 1.2 nm/°C. The thiophene-based conjugated polymer laser medium is a solution of poly[3-(2-ethyl-isocyanato-octadecanyl)-thiophene] dissolved in tetrahydrofuran (THF). A temperature controller 24 selectively and controllably adjusts the temperature of the thiophene-based conjugated polymer to selectively and controllably tune the wavelength of the output laser beam. Fig. 1.		SA118390228+
347.	JAMAL SALEH AL WAKEEL [SA] +	117380506	2020-08-13	BIFURCATED PERITONEAL CATHETER	The bifurcated peritoneal catheter serves as a peritoneal dialysis device for patients with kidney failure. The catheter includes a primary tube with two porous internal tubes extending therefrom at a small acute angle to one another. The two internal tubes provide a solution to the potential problem of blockage in a single catheter tube, greatly reducing the potential need for surgery to remove and replace such a single catheter tube. The bifurcated peritoneal catheter includes a subcutaneous cuff, and can include a second deep cuff in the abdominal wall. Either or both of the internal tubes can be straight, curved or coiled, with the curvatures and coils oriented in the same direction, toward one another, or away from one another. FIG 1		SA117380506+
348.	HAZEM GHABBOUR [SA]; HUSSAIN MANSUR GHAWAS [SA]; ASSEM BARAKAT [SA]; ABDULLAH AL-MAJID [SA]; FARDUS F EL-SENDUNY [SA]; FARID A BADRIA [SA]; MOHAMMAD SHAHIDUL ISLAM [SA]; YASEEN ALI MOSA ELSHAIER [SA] +	118390653	2020-11-04	SUBSTITUTED SPIROOXINDOLES	The substituted spirooxindoles are MDM2-p53 inhibitors bearing a benzylidine (styryl) arm and have a complex fused ring system ideally suited for binding to the MDM2 protein, thereby interrupting its protein-protein interaction (PPI). Sixteen compounds, designated 4a-4p, were synthesized in a simple smooth method using an asymmetric 1,3-dipolar reaction as the key step. Testing showed that the compounds exhibit anti-cancer activity against various forms of cancer cells affecting humans.		SA118390653+
349.	PROMY VIRK [SA]; MOHAMMAD IQBAL SIDDIQUI [SA]; MUZZAMMIL IQBAL SIDDIQUI [SA] +	117380577	2020-08-13	FISH FOOD COMPOSITION	The fish food composition includes pea meal, corn meal, soy bean meal, corn oil, and fish meal. The fish food composition can include less than 17% by weight fish meal and between about 2.0% and 4.0% by weight pea meal. The fish food composition can also include carboxymethyl cellulose and a vitamin and mineral mix. FIG 1		SA117380577+
350.	HATEM A ABUELIZZ [SA]; MOHAMMAD RAISH [SA]; MOHAMED A AL-OMAR [SA]; MUSHTAQ AHMAD ANSARI [SA]; MASHOOQ AHMAD BHAT [SA] +	117390136	2020-12-08	CYCLOOXYGENASE INHIBITORS	Cyclooxygenase inhibitors include compounds of the formula: where where R represents phenyl, nitrophenyl, 2-nitrophenyl, 3-nitrophenyl, 4-nitrophenyl, 4-chlorophenyl, 2,4-dichlorophenyl, 3,4-dimethoxyphenyl, 2-methoxyphenyl, 4-hydroxyphenyl, dimethylaminophenyl, 3-methoxyphenyl, 4-ethoxyphenyl, 2,4,5-trimethoxyphenyl, 3,4,5-trimethoxyphenyl, 2,4,6-trimethoxyphenyl, and 2,4-dimethoxyphenyl, 3-hydroxyphenyl, 4-dimethylaminophenyl, or 2,3,4-trimethoxyphenyl. Fig. 1		SA117390136+
351.	REFAT AHMED ELSHEIKHY [SA]; MOSLEH ALI ALSHAMRANI [SA] +	117380571	2020-12-08	Method of Storing Exfoliated Nanoclay Particles	The method of storing exfoliated nanoclay particles involves the freezing of exfoliated nanoclay particles in water, thus forming ice with the exfoliated nanoclay particles suspended therein. The frozen state of the suspension prevents the exfoliated nanoclay particles from agglomerating, thus allowing the nanoclay particles to be stored and transported while maintaining their exfoliated state. The exfoliated nanoclay particles are added to the water to form a suspension, and the suspension is then mixed for between 24 and 72 hours to ensure that no agglomerated nanoclay particles are in suspension and that the suspension contains		SA117380571+

					only exfoliated nanoclay particles. The suspension is then frozen to store the exfoliated nanoclay particles in ice.		
352.	TANSIR AHAMAD [SA]; HAMAD ABDULLHA AL-LOHEDAN [SA]; SAAD M ALSHEHRI [SA]; YUSUKE YAMAUCHI [SA] +	116380024	2020-12-08	METHOD OF FABRICATING MACROPOROUS CARBON CAPSULES FROM POLLEN GRAINS	A method of producing macro porous carbon capsules includes providing pollen grains from date palm (Phoenix dactylifera L.) males, drying the pollen grains, heating the dried pollen grains to a temperature of at least 500°C under an atmosphere of N2 gas to produce macroporous carbon capsules. The macroporous carbon capsules produced from the above method can have an oval shape with a diameter in the range of about 18 μm to about 20 μm. The macroporous carbon capsules have a mean pore diameter in the range of about 50 nm to about 450 nm. The pores are three-dimensionally interconnected via nanoscopic carbon walls. The carbon walls have a thickness of about 4 μm. Fig. 1.		SA116380024+
353.	KHALID MUSTAFA OSMAN ORTASHI [SA]; AWATIF AHMED HENDI [SA]; MANAL AHMED AWAD [SA] +	117380288	2020-01-01	Method for synthesizing noble metal nanoparticles using dead cancer cells	A method for preparing noble metal nanoparticles from dead cancer cells includes reacting an aqueous metal ion solution with an aqueous solution including dead cultured cancer cells to obtain a nanoparticle mixture, and isolating the nanoparticles from the mixture. The noble metal nanoparticles can be synthesized by using the dead cultured cancer cells with the media solution thereof or by using dead cancer cells from which cell culture media has been removed. The aqueous metal ion solution can include silver nitrate (AgN03) and the noble metal nanoparticles formed can be silver nanoparticles. The metal ion solution can include chloroauric acid (HAuC14) and the noble metal nanoparticles formed can be gold nanoparticles. The dead cultured cancer cells can include TK6 lymphoblastoid cell lines. Fig. 1.		SA117380288+
354.	EHAB SALAHELDIN AWAD MOHAMED [SA] +	117380263	2020-08-25	THREE-DIMENSIONAL SPACE-DIVISION Y-SPLITTER FOR MULTICORE OPTICAL FIBERS	The three-dimensional space-division Y -splitter for multi core optical fibers (MCF) (100) is a 3-D device that depends on space-division splitting (SDS) by double-hump graded-index (DHGI) in a rectangular waveguide. It includes multiple single Y-splitters, each one being dedicated to one MCF core. Each Y-splitter layer has three stages, including an expander; a DHGI-SDS; and a separator. The net result of theY-splitter is that the signal in a single multi-core fiber input has its optical power split 50-50 between two multi-core fiber outputs without an intermediate single-core single-mode fiber (SMF) conversion stage. Fig. 1A.		SA117380263+
355.	GEORGE SEGHAL KIRAN [SA]; JOSEPH SELVIN [IN]; MARIADHAS VALAN ARASU [SA]; NAIF ABDULLAH AL-DHABI [SA] +	116380163	2020-08-05	PROCESS FOR PRODUCTION OF YELLOW PIGMENT FROM BACTERIA	The process for the production of the yellow pigment can include the steps of (a) culturing Bacillus sp. GSK07 bacteria; and (b) extracting the yellow pigment from the bacterial culture using a solvent. The solvent for extraction can be an alcohol, e.g., ethanol, methanol, or both ethanol and methanol. The pigment includes D-limonene.		SA116380163+
356.	HATIM ABOALSAMH [SA]; FAHMAN SAEED [SA]; MUHAMMED HUSSAIN [SA] +	117380732	2020-05-14	METHOD FOR FINGERPRINT CLASSIFICATION	The method for fingerprint classification uses a local gradient directional binary pattern (LGDBP) descriptor. The method acquires digital images of fingerprints from a scanner or the like, and the LGDBP descriptors corresponding to the directional ridge patterns 5 are calculated. Using the LGDBP descriptors as a fingerprint representation, an extreme learning machine neural network with a radial basis function kernel may is used to reduce substantially the search space to a predefined number of classes of known fingerprints to be searched to identify the fingerprint. FIG 1		SA117380732+
357.	AHMED SAMEER HENDI [SA]; KHALID MUSTAFA ORTASHI [SA]; ABDULHAKEEM ALHAMAD [SA]; ABEER RAMADAN ABDELAZIZ [SA]; AWATIF AHMED HENDI [SA]; MANAL AHMED AWAD [SA] +	117390069	2020-08-30	SYNTHESIS OF SILVER NANOPARTICLES USING FUNGI	A method of preparing metal nanoparticles from fungi includes preparing a biomass of fungal cells; providing an aqueous solution including a metal salt; mixing the biomass of fungal cells with the aqueous solution of metal salt; and incubating the resulting mixture at a temperature range of 35 °C to 60 °C to produce the metal nanoparticles. Fig. 1.		SA117390069+
358.	HUSAIN ABBAS [SA]; TAREK ALMUSALLAM [SA]; MOHAMED S MORSY [SA]; YOUSEF AL-SALLOUM [SA] +	117390103	2020-11-04	INTERLOCKING AND INSULATED CONSTRUCTION BLOCK	An interlocking and insulated construction block includes a first pair of parallel, opposing sides and a second pair of parallel, opposing sides extending normal to the first pair of opposing sides. At least one cavity or recess extends through the construction block and includes a first volume of thermal insulation material. One or both sides of the first pair of opposing sides includes a pair of staggered engaging members or a pair of staggered receiving members		SA117390103+

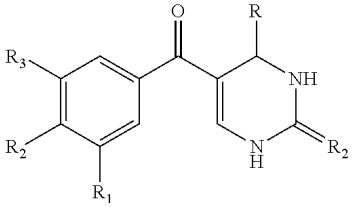
					configured to engage or lock with a mating pair of engaging members or receiving members of another insulated construction block. A plurality of different embodiments of the interlocking and insulated construction blocks may be provided in a set, and provide for mortar-less construction of walls due to their interlocking nature. Fig. 1.		
359.	REFAT AHMED ELSHEIKHY [SA]; MOSLEH ALI ALSHAMRANI [SA] +	117390094	2020-09-01	DEVICE FOR MEASURING EXPANSIVE SOIL SHRINKAGE	The device for measuring expansive soil shrinkage includes a plurality of molds, a plate positioned beneath each mold, and a scale. The scale includes a primary plate having a center portion including an aperture and a secondary plate. The primary plate is positioned on top of the secondary plate. The scale also includes a plurality of primary supports, each primary support being positioned between the primary plate and the secondary plate, as well as a first arm movably positioned on the primary plate and a second arm movably positioned on the primary plate, the first arm and the second arm being connected to one another by a plurality of test wires. Further, the scale includes a plurality of cantilever arms movably positioned on the primary plate. The cantilever arms are configured for supporting one of the molds on the test wires. Fig. 1		SA117390094+
360.	HANAN NEJER SAHIL ALOTAIBI [SA]; NAWAF YOUSEF IBRAHIM LABBAN [SA] +	117380310	2020-11-04	ADJUSTABLE BITE RECORDING TOOL FOR DENTAL IMPLANTS	The adjustable bite recording tool for dental implants includes a support post having opposing upper and lower ends. The threaded portion of a screw extends downward from the support post and is adapted for releasable attachment to the patient's pre-existing dental implant. An angularly adjustable ring is mounted on the support post. A support arm extends upward from the angularly adjustable ring at an oblique angle, and a support table is mounted on an upper end of the support arm. A bite recording cap is mounted on the support table and on the upper end of the support post. A top surface of the bite recording cap is adapted for receiving a bite recording medium. Fig. 1.		SA117380310+
361.	EBTESAM AL OLAYAN [SA]; HATIM SALAMA ALI [SA]; KHALID MUSTAFA ORTASHI [SA]; MANAL AHMED AWAD [SA]; MANAL FAWZY ELKHADRAGY [SA]; HANI MOHAMMAD YAHYA [SA] +	117390055	2020-08-30	Method of preparing date palm seed nanoparticles	A method of preparing nanoparticles of date palm seeds comprises providing date seed powder; mixing the date seed powder with an acid solution to produce date palm seed nanoparticles; and isolating the date palm seed nanoparticles. A method of controlling the growth or proliferation of bacteria can include administering an effective amount of the date palm seed nanoparticles synthesized according to the present method to a site of bacterial activity. Fig. 2.		SA117390055+
362.	AHMED MAHMOUD ALAFEEFY [SA]; AMANI SHAFEEK AWAAD [SA]; REHAM EL-MELIGY [SA] +	117380584	2020-12-08	Amino Substituted Acetamide Derivative	The present invention relates to an amino substituted acetamide derivative can include a compound having the following general formula: wherein R represents (4-Cyano-4-phenyl)piperidinyl hydrochloride, (4-Hydroxy-4- phenyl)piperidine, (4-chlorophenyl)piperidine hydrochloride, 4-Piperidinopiperidine, 4- (Methoxypheny !)piperidine, 1-(2,3-xylyl)piperazine monohydrochloride, 4-Aminoquinaldine or anthranilic acid, or a pharmaceutically acceptable salt thereof. The present invention relates to anti-ulcer drugs, and anti-ulcerogenic and anti-ulcerative colitis (UC) amino substituted acetamide derivative. FIG. 1.		SA117380584+
363.	HUDA AHMED AL-SHEHRI [SA] +	116380054	2020-11-04	STABILIZING DEVICE FOR DENTAL CROWNS	The stabilizing device for dental crowns includes aU-shaped base, an elongate bottom member extending from the base, and opposing upright members extending from the ends of the bottom member. A clamp assembly is rotatably supported between the upright members. The clamp assembly includes a spindle stock with a holder shaft extending from one of the upright members. The distal end of the holder shaft supports a master model of a patient's tooth. A tail stock with a tail shaft extends from the other upright member. A resilient tip is attached to the distal end of the tail shaft to support a crown thereon. The tail shaft is biased to enable clamping and holding of the crown and master model together via reciprocation of the tail shaft with respect to the holder shaft. Measurement scans may be performed at multiple angular positions through selective rotation of the clamp assembly. Fig. 1.		SA116380054+
364.	AMEL LAREF [SA]; KHALID MUSTAFA OSMAN ORTASHI [SA]; AWATIF AHMED HENDI [SA]; MANAL AHMED AWAD [SA] +	117380664	2020-12-08	GREEN SYNTHESIS OF REDUCED GRAPHENE OXIDE SILICA NANQCOMPQSITE USING	The green synthesis of a reduced graphene oxide (rGO) silica (Si02) nanocomposite using Nigella sativa seed extract includes mixing a quantity of carbon source in an acid solution while stirring to obtain a solution; adding a· first oxidant gradually into said solution to oxidize		SA117380664+

				NIGELLA SATIVA SEEDS EXTRACT	the soot and obtain a first suspension; stirring the first suspension while maintaining a temperature of said suspension to about 35°C; adding plant seeds extract to the first suspension while raising the temperature of the suspension to about 60°C; adding a second oxidant to said suspension to form the reduced graphene oxide nanoparticles; isolating the reduced graphene oxide nanoparticles by centrifugation; suspending the reduced graphene oxide nanopmiicles in water; adding a solution comprising tetraethyl orthosilicate (TEOS), concentrated aqueous ammonia solution and a plant seeds extract under ultrasonication; and increasing the temperature to about 90°C to form reduced graphene oxide-silicon dioxide nano		
365.	HANAN NEJER SAHIL ALOTAIBI [SA]; SULIEMAN SALEEM AL-JOHANY [SA] +	117380300	2020-11-04	REUSABLE BITE-RECORDING KIT FOR DENTAL IMPLANTS	The reusable bite-recording kit for dental implants includes one or more first bases, each of which is removably secured in a previously installed implant. The first bases have adjustably threaded rods extending therefrom, with contact fittings disposed upon the distal ends of the rods. Two second bases are removably secured in previously installed implants opposite the first bases. The second bases have plates at their distal ends, with the plates captured in a channel of an occlusal table. The table defines an occlusal plane. The rods of the first bases are adjusted to place their contact fittings just in contact with the occlusal plane of the occlusal table of the second bases, thus establishing the occlusal plane of the first bases for the manufacture of prosthetic teeth of proper height. This precludes the imprecise fittings that can occur using non-rigid elastomer materials. Fig. 1.		SA117380300+
366.	ADIL SYED FAROOQ [SA]; SIDDIQUI MOHAMMED RAFIQ HUSSAIN [SA]; ALABBAD SAAD HAMAD [SA]; AL-WARTHAN ABDURRAHMAN ABDULLAH [SA]; KHAN MUJEEB YOUSUF [SA]; KUNIYIL MUFSIR [SA] +	11052379	2021-07-06	Titania-supported mixed metal oxide catalyst	A mixed metal oxide catalyst includes NiMnO nanoparticles on a TiO2 nanoparticle support. The catalyst may be used to produce biodiesel from waste oils, such as used cooking oils, through a transesterification reaction. The process of producing biodiesel using waste oils using the mixed metal oxide catalyst eliminates a need for quenching, reduces issues related to saponification and glycerol recovery, and allows for easy recovery and reuse of the mixed metal oxide catalyst in an economical and environmentally friendly way.	USPTO	US11052379+
367.	ALANGARI SARAH SULTAN [SA] +	10959809	2021-03-30	Multifunctional dental liner applicator	A multifunctional dental liner applicator dispenses tooth liner and a stream of air while illuminating the working dental area. The applicator includes a body and a head that is removably attached to a distal end of the body. The head supports a nozzle that is configured to be inserted into a void of a prepared tooth. A liner button on the body controls a valve for dispensing liner out of the nozzle. An air button controls airflow out of openings adjacent the nozzle for drying an area that is receiving liner. Fiber optic fibers extend from a button controlled light source housed in the body to openings adjacent the nozzle for illuminating the working area.	USPTO	US10959809+
368.	ABBAS HUSAIN [SA]; ALMUSALLAM TAREK H [SA]; ALOTAIBI EID SHAJA [SA]; AL-SALLOUM YOUSEF A [SA] +	10982443	2021-04-20	Hybrid post-installed anchor for concrete	The hybrid post-installed anchor for concrete is a structural anchor for installation within a hole formed in concrete. The hybrid post-installed anchor for concrete includes an anchor rod and a plurality of anchor rings mounted on and encircling the anchor rod. Each anchor ring includes a cylindrical ring, having opposed open upper and lower ends, and a plurality of fins secured to an outer surface of the cylindrical ring. Each fin has a fixed edge, which is secured to the outer surface of the cylindrical ring, and a free edge. Each fin projects radially and upwardly, such that each fin is angled with respect to a common central axis of the anchor rod and each anchor ring when the anchor rings are mounted coaxially on the anchor rod. Alternatively, the fins may be formed integrally on the anchor rod, without separate cylindrical rings.	USPTO	US10982443+
369.	MOHAMMED YASSER HUSSEIN ISSA [YE]; AL-ZEQRI NABIL AHMED QASSIM [SA]; ALSALME ALI MOHAMMED [SA]; ALHARTHI FAHED AHMED ALI [SA]; WARAD ISMAIL KHALIL [PS]; ALALI ANAS KHALED [PS]; ZARROUK ABDELKADER M [MA] +	10954200	2021-03-23	Anti-angiogenesis compound	An anti-angiogenic compound includes 4-Benzyl-N′-(2-(o-tolyloxy) acetyl) morpholine-2-carbohydrazide (BAMC), having the following structural formula:	USPTO	US10954200+

370.	Chih- Yuan Tseng MD. Ashrafuzzaman	9529006	27/12/2016	Method for direct detection of lipid binding agents in membrane	The method for direct detection of lipid binding agents in membrane includes dissolving a lipid in an organic solvent in a container; evaporating off the organic solvent to create a lipid film on the inside wall of the container; adding a buffer solution; adding a known volume of a membrane active agent to the buffer solution; incubating the solution in the dark for a period of time; removing the buffer solution from the container to provide a solution of sample A; washing the container with a buffer solution; adding an organic solvent while stirring the container to dissolve the lipid film to create a homogenous solution B; and measuring the absorbance of the samples A and B by absorption spectroscopy. The method may further include developing a universal probability function to test and quantify a membrane-based cytotoxicity of general drug candidates.	USPTO	US 9529006
371.		116380022	27/09/2018			SAIP	SA 116380022
372.	Zakariya Moochikootathil	116370500	27/09/2018	COOLING FIXTURE FOR SOLAR PHOTOVOLTAIC PANELS	The cooling fixture for solar photovoltaic panels has a hollow support platform 110 made from thermally conductive metal that contains a heat exchange medium, preferably water. The solar photovoltaic panel is supported atop the platform so that heat absorbed by the panel is transferred to the platform by conduction and through the media by convection. The platform is pivotally supported on a base frame, and can be adjusted to any desired angle by a brace releasably engaging lugs projecting from the edge of the platform. The heat exchange medium is circulated from the top of the platform to the bottom of the platform by a thermo- siphon effect through at least one thin, rectangular duct having at least one fin for cooling the medium by heat exchange with air. FIG. 1.	SAIP	SA 116370500
373.	Abduallah Othman Nuhait Obida Mohamed Zeitoun Hany Abdelrahman Alansary	9393502	19/07/2016	Desalination system	The desalination system is a multi-stage flash desalination (MSF) system. Each stage has a P-shaped chamber having a flashing section extending vertically, a condensing section extending horizontally to overlay the flashing section of the next succeeding stage, and a demister (a device to separate liquid droplets entrained in vapor) separating the flashing section and the condensing section. One or more heat pipes extend between the condensing section of each stage and the flashing section of the next succeeding stage in order to transfer heat released by the condensing vapor in one section to the colder flashing section of the next succeeding chamber. The system includes a seawater-cooled condenser in the last stage to recover fresh water from the water vapor. The system may be modified by replacing or supplementing the condenser in the last stage with a thermal vapor compressor (TVC) to transfer vapor to the first stage.	USPTO	US 9393502
374.		116370742	05/03/2018			SAIP	SA 116370742
375.	Mohammad Iqbal Khan Galal Fares Shehab Eldin Mohamed Mourad	9290415	22/03/2016	Fire resistant cementitious composite and method of making the same	The fire resistant cementitious composite is an engineered cementitious composite (EEC) having both flexural strength and fire resistant properties. The fire resistant cementitious composite includes a binder mixture formed from Portland cement and fly ash, sand, polyvinyl alcohol fibers, a polycarboxylic ether polymer and water. In the binder mixture, a weight ratio of the fly ash to the Portland cement is between approximately 1.0 and approximately 1.3. A weight ratio of the Portland cement to the sand is between approximately 0.85 and approximately 1.0. A weight ratio of the water to the binder mixture is between approximately 0.28 and approximately 0.33. The sand is preferably Arabian Gulf dune sand.	USPTO	US 9290415
376.		116370713	04/11/2018			SAIP	SA 116370713
377.	Abdullah Mohamed Almayouf Maged Naiy Yahya Shaddad Mohamed Ali Mohamed Ghanem	116370499	19/02/2019	Electrochemical method of producing hydrogen peroxide using a titanium oxide nanotube catalyst	The electrochemical method of producing hydrogen peroxide using a titanium oxide nanotube catalyst is an electrochemical process for producing hydrogen peroxide using a cathode formed as a nanostructured titania (Ti02) electrode surface treated with nitrogen. An anode and the cathode are immersed an alkaline solution saturated with oxygen in an electrolytic cell. An electrical potential is established across the cathode and the anode to initiate electrochemical reduction of the oxygen in the alkaline solution to produce hydrogen peroxide dissolved in the alkaline solution. The hydrogen peroxide dissolved in the alkaline solution is then collected from the cell. Fig. 10.	SAIP	SA 116370499
378.	Ali Abdullah Alshatwi Periasamy Vaiyapuri Subbarayan	116370428	19/02/2019	Method to produce noble metal nanocomposites	The method for producing noble metal nanocomposites involves reducing noble metal ions (Ag, Au and Pt) on graphene oxide (GO) or carbon nanotubes (CNT) by using Artocarpus integrifolia	SAIP	SA 116370428

	Jegan Athinarayanan				leaves extract as a reducing agent. As synthesized MNPs/GO and MNPs/CNT composites have been characterized using X-ray diffraction (XRD), transmission electron microscope (TEM) imaging, and energy dispersive X-ray spectroscopy (EDX). The TEM images of prepared materials showed that the nanocomposites were 1-30 nm in size with spherical nanoparticles embedded on the surface of GO and CNT. This synthetic route is easy and rapid for preparing a variety of nanocomposites. The method avoids use of toxic chemicals, and the prepared nanocomposites can be used for biosensor, fuel cell, and biomedical applications. FIG. 1A.		
379.	Danny Monther Rabah Saradh Prasad Sandhanasamy Devanesan Vadival Masilamani Karim Hamda Farhat Mohamad Saleh Alsalhi	116370376	03/01/2019	Method of detecting bladder cancer by optical analysis of bodily fluids	The method of detecting bladder cancer by optical analysis of bodily fluids utilizes optical techniques to determine a concentration of porphyrin in a patient's bodily fluid sample. The patient is administered 5-aminolevulinic acid and, approximately eight hours later, a bodily fluid sample is collected from the patient, and this bodily fluid sample is optically analyzed to measure a concentration of porphyrin therein. Optical analysis is preferably performed by laser-induced fluorescence spectroscopy. If the measured concentration of porphyrin is approximately three times a pre-determined porphyrin concentration for a healthy person of the same age as the patient, then the patient is diagnosed with bladder cancer.	SAIP	SA 116370376
380.	Sammer Yousuf Assem Barakat Abdullah Mohammed Al-Majid Muhammad Iqbal Choudhary Mohammad Shahidulislam	116370958	19/02/2019	α-Glucosidase inhibitors	Novel a-Glucosidase inhibitors include propanone substituted indole rmgcontaining heterocyclic compounds, which are represented by Formula I: Wherein R1 is thiophene, 2, 4-di chloro phenyl, 2, 6-di chloro phenyl, bromo phenyl, benzyl or nitrophenyl; and R2 is an aryl group, or stereoisomers or pharmaceutically acceptable salts thereof.	SAIP	SA 116370958
381.	Ayman Mohamamdy Atta Hamad Abdulha Al-Lohedan Abdelrahman Osama Ezzat	9347114	24/03/2016	Method of synthesizing silver nanoparticles from waste film	A method of synthesizing silver nanoparticles from waste film includes providing waste film including a silver halide salt and gelatin, mixing the waste film with an alkaline solution to form a mixture, heating the mixture, and subjecting the mixture to ultracentrifugation to isolate silver nanoparticles in the mixture. The film can include waste radiographic or photographic film pieces. Glucose and/or polyvinylpyrrolidone (PVP) may be added to the mixture. The nanoparticles can have an average particle size of about 2 nm to about 10 nm. The silver nanoparticles can be resistant to synthetic stomach fluid and showed high antimicrobial activity.	USPTO	US 9347114
382.		116370987	18/07/2019			SAIP	SA 116370987
383.	Promy Virk Khalid Mustafa Osman Ortashi Awatif Ahmed Hendi Manal Ahmed Awad Mai Abdelrahman Elobeid	9428399	30/08/2016	Synthesis of nanoparticles of metals and metal oxides using plant seed extract	The synthesis of nanoparticles of metals and metal oxides using plant seeds extract involves providing a solution comprising a metal ion; providing a plant seeds extract solution that comprises a reducing agent; and combining the metal ion solution and the plant extract solution while stirring at room temperature to produce metal nanoparticles. The plant extract is obtained from Trigonella foenum-graecum seeds, and the metal ion is selected from the group consisting of silver (Ag), gold (Au) and zinc (Zn).	USPTO	US 9428399
384.		116370957	07/10/2019			SAIP	SA 116370957
385.	Galal Fares Mohammad Iqbal Khan	9423326	23/08/2016	Method of obtaining simulated pore water	The method of obtaining simulated pore water includes: mixing cement with a quantity of water and waiting a period of time for water-soluble salts in the cement to dissolve; filtering the mixture; evaporating an aliquot of the filtrate; weighing solids obtained by evaporating the aliquot to determine total dissolved solids or salts in the aliquot; weighing the remaining filtrate and measuring its volume; determining the mass of total dissolved solids in the remaining filtrate; determining the mass of water in remaining filtrate; determining the mass of water that would be in the remaining filtrate if the mix had been prepared with a desired W/C ratio; evaporating any difference between the mass of the remaining filtrate and the mass that would be present at the desired W/C; and collecting the filtrate remaining as simulated pore water for the desired W/C ratio which may be used for a variety of different applications.	USPTO	US 9423326
386.		116380048	04/04/2019			SAIP	SA 116380048

387.	Ayman Al-Jazaeri	9517185	13/12/2016	Feeding tube system	The feeding tube system includes an elongated shaft having a proximal portion, an opposing distal portion, and a central opening or lumen extending therethrough. The proximal portion is configured to remain outside a patient's body cavity and includes a first opening through which fluids can be introduced into the lumen. The distal portion is configured for disposing within a patient's body cavity and includes a second opening for discharging fluids from the lumen into the patient's body cavity. An interior retention balloon is provided at the distal portion of the elongated shaft. An external base positioned at the proximal portion of the feeding tube can include at least one exterior base balloon extending therefrom. The interior retention balloon and the at least one exterior base balloon are inflatable.	USPTO	US 9517185
388.		116380049	19/02/2019			SAIP	SA 116380049
389.	Mostafa Abdelhamid Ahmed	9430682	30/08/2016	Pressure profile data coding system and method	The pressure profile data coding system and method maps the binary data standard format (0, 1) to a prominent and a non-prominent square shape milled inside a proper material called the code stamp. The code stamp can be scanned using a high spatial resolution, high sensitivity pressure sensor array to get a pressure profile coded image of this code stamp. The acquired gray level image has two color regions including one color region having high gray color values mapping the prominent region of the code stamp, and the second color region having low gray color values mapping the non-prominent region of the code stamp. The two color regions are arranged in a square grid, which can be processed using Reed-Solomon error correction until the image can be appropriately interpreted. The required data are then extracted from patterns present in both horizontal and vertical components of the image.	USPTO	US 9430682
390.		116370961	27/09/2018			SAIP	SA 116370961
391.	Ehab Salaheldin Awad Mohamed Mohamed Ramy Abdel-Rahman	9128230	08/09/2015	Optical absorber for long-wave infrared radiation	The optical absorber for long-wave infrared radiation includes a nano-plasmonic gold structure arrayed on an absorbing dielectric substrate in an alternating checkerboard-type pattern. A plurality of plasmonic cells are formed on an upper surface of the absorbing dielectric substrate, which can be, for example, a silicon nitride (Si_3N_4) substrate. The plurality of plasmonic cells are arrayed in a regular rectangular grid pattern, with each plasmonic cell having a plurality of elongated strips, each extending along an identical axis of orientation within the plasmonic cell. Adjacent ones of the plasmonic cells are oriented orthogonally with respect to one another, and each elongated strip includes a titanium layer formed on the upper surface of the absorbing dielectric substrate and a gold layer formed on the titanium layer, such that the titanium layer is sandwiched between the gold layer and the upper surface of the absorbing dielectric substrate.	USPTO	US 9128230
392.		116370242	27/09/2018			SAIP	SA 116370242
393.	Essam Al-Ammar Mazen Ba-abbad Hany Al-Ansary	115360582	05/04/2018	Two axis solar tracking system	A modular two axis solar tracking system contemplates a first fixed base and a slidable/rotatable arm fixed to the first fixed base. The fixed base includes a primary linear actuator and a first movable element movable along a fixed axis. A second linear actuator is fixed at one end of the first movable element and an inverted J-shaped element is movable along a second axis that is perpendicular to the first axis. A second fixed base is disposed in an open area surrounded by an open area defined by a U-shaped lower portion of the inverted J-shaped element. A slidable rotatable arm includes a projection coupled to the inverted J- shaped element that together with the first and second actuator move collection at the ends of the slidable/rotatable arm or arms to track the sun. Figure 1.	SAIP	SA 115360582
394.	DDN SINGH Raja Rizwan Hussain Abdulrahman Alhozaimy Abdulaziz Al-Negheimish	116370973	27/09/2018	Method of ascertaining fully grown passive film formation on steel rebar embedded in concrete	The method of ascertaining fully grown passive film formation on steel rebar embedded in concrete utilizes electrochemical impedance spectroscopy (EIS) to determine, in situ, the degree of passive film formation on steel rebar embedded in concrete. A length of steel rebar and a counter electrode are both embedded in a concrete slab. A reservoir is supported on an external face of the concrete slab and filled with an electrolytic solution. A reference electrode is then	SAIP	SA 116370973

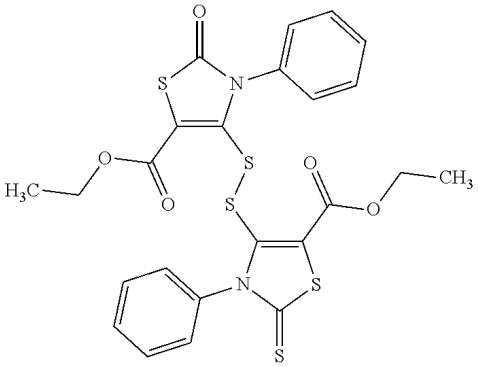
					positioned in the electrolytic solution, and the length of steel rebar, the counter electrode and the reference electrode are electrically connected an EIS test instrument to perform electrochemical impedance spectroscopy. The quality of passive film formation on the length of steel rebar is determined based on comparison of the electrochemical impedance spectroscopy results with known passive film formation data.		
395.	Devendra Deo Narain SINGH Raja Rizwan Hussain Abdulrahman Alhozaimy Abdulaziz Al-Negheimish	9469769	18/08/2016	Anti-corrosion treatment composition for steel rebar embedded in concrete	The anti-corrosion treatment composition for steel rebar embedded in concrete is a composition for coating steel rebar before the steel rebar is embedded in concrete. The coating of the steel rebar with the anti-corrosion treatment composition forms a treatment film on the steel rebar which controls both uniform corrosion and pitting corrosion of the steel rebar after it has been embedded in the concrete. The anti-corrosion treatment composition includes an inorganic acid, an organic acid, polyethylene glycol and water. The inorganic acid forms between approximately 3.9 wt % and approximately 15.0 wt % of the anti-corrosion treatment composition, the organic acid forms between approximately 0.1 wt % and approximately 2.9 wt % of the anti-corrosion treatment composition, the polyethylene glycol forms between approximately 2.0 wt % and approximately 10.7 wt % of the anti-corrosion treatment composition, and the remainder of the anti-corrosion treatment composition is water.	USPTO	US 9469769
396.		116380155	04/10/2018			SAIP	SA 116380155
397.	Abdullah Omar Al-Dhfyan Mashooq Ahmad Bhat	9119856	01/09/2015	Method for treating cancer using a dihydropyrimidine derivative	A method of treating cancer using a dihydropyrimidine derivative includes administering to a patient a therapeutically effective amount of a dihydropyrimidine derivative having the following formula: FORMULA 1  wherein: R2 is S or O and R, R1, R3, and R4 each independently represent hydrogen, optionally substituted straight-chain or branched C1 to C7 alkyl, halogen, optionally substituted haloalkyl, alkoxy or haloalkoxy in which the alkyl is straight-chain or branched C1-C4 alkyl and the halo derivatives are mono, di, tri or poly halosubstituted, the optional substituents including halogen, amino, substituted amino, C1-C4 alkyl, halo (C1-C4) alkyl, alkoxy or haloalkoxy having C1-C4 alkyl group, or R, R1, R3, and R4 each independently represent aryl, substituted aryl, heteroaryl, or substituted heteroaryl, the substituents including halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, alkylthio, alkylamino, aryl, heteroaryl, aryloxy, haloaryloxy, arylthio, or arylamino; or a pharmaceutically acceptable salt thereof.	USPTO	US 9119856

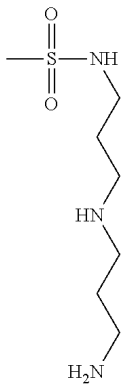
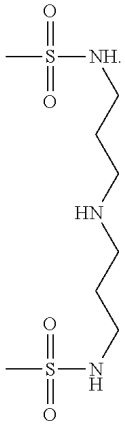
398.		116370427	27/09/2018			SAIP	SA 116370427
399.	Shehab Eldin Mohamed Mourad Galal Fares Mohammad Iqbal Khan Wasim Abbass	9399599	26/07/2016	Strain-hardening cementitious composite	A strain-hardening cementitious composite (SHCC) can include cement, fly ash (FA), dune sand (DS), and polyvinyl alcohol (PVA) fibers. The amount of DS in the SHCC can be at least 25% by weight. The cement can be Type I ordinary Portland cement, conforming to ASTM C150 specifications. The fly ash can be Class F fly ash (FA). The median particle size of the cement can be 14 µm. The median particle size of the FA can be 10 µm.	USPTO	US 9399599
400.		116370959	27/09/2018			SAIP	SA 116370959
401.	Ermal Mullalli Ali Al-Samhan Hesham Fouli Shkelzen Hykaj	9151268	06/10/2015	Wave energy convertor using oscillating pendulums	The wave energy convertor using oscillating pendulums includes a buoyant base, a support frame mounted to the buoyant base, and a power generating assembly coupled to the support frame. A plurality of annular rails is disposed on the support frame and a reinforcement member extends diametrically across each annular rail. The power generating assembly includes a plurality of pendulum arms rotatably mounted on a central axle extending coaxially through the reinforcement members. One or more dynamos are mounted to support plates on opposite ends of the pendulum arms, and rotors extend from the dynamos to ride on the inner surface of the annular rails. Undulation of the buoyant base riding the waves of a body of water causes the pendulum arms to oscillate. Rotation of the rotors generates current, which is collected by a current collection assembly and transmitted to an onshore facility for distribution.	USPTO	US 9151268
402.		116370239	05/07/2018			SAIP	SA 116370239
403.	Tarek Almusallam Husain Abbas Yousef A. Al-Salloum	9677273	13/06/2017	Concrete-filled steel tubular column for high load carrying capacity and fire resistance	A concrete-filled steel tubular column for high load capacity, usually required in tall buildings, includes an outer longitudinally extending generally vertical tubular shell and an inner longitudinally extending perforated tubular steel shell disposed within said outer longitudinally extending vertical tubular shell and coaxial therewith. Further, a plurality of relatively small diameter vertically extending perforated tubular steel members are disposed around said inner longitudinally extending tubular shell between said outer longitudinally extending tubular steel shell and said inner longitudinally extending steel shell with axes parallel to said coaxial axes. The concrete-filled steel column wherein said inner steel shell is centrally disposed within the outer longitudinally extending vertical tubular steel shell and wherein the volume between the outer steel shell and the inner shell is filled with high strength concrete. The perforated inner shell and members have a plurality of meltable polymer plugs or caps on perforations to prevent plastic cement from flowing into or closing the openings during concreting. In the event of fire the plastic or polymer plugs or caps melt and allow gases and smoke to flow into the pipes and up through the inner member and out therefrom at the top of the column The inner vertical tubular shell and members may be subsequently used for injecting grout through the perforations (which get opened during fire by melting of polymer caps) for strengthening the post fire damaged concrete).	USPTO	US 9677273
404.		115370089	15/04/2018			SAIP	SA 115370089
405.	Tarek Almusallam Husain Abbas Yousef A. Al-Salloum	9435118	06/09/2016	Interlocking masonry blocks for construction of load bearing and non-load bearing walls	An interlocking masonry block system for the construction of load bearing and non-load bearing walls includes a plurality of generally rectangular shaped building blocks wherein each block comprises a pair of opposite longitudinally extending sidewalls each of which includes an interior rectangular shaped vertical rib. The block also includes a central section disposed between the sidewalls in an abutting relationship therewith. Further, the central section defines one or two diagonally oriented rectangular vertical passageway extending through the central section at an angle of between about 30° and 45° and preferably at an angle of about 38°. The central section also includes one to three vertical extending recesses corresponding to and mating with the vertical ribs on each side thereof. The central section and the pair of sidewalls also define up to four rectangular shaped vertical passageways for utility pipes and/or electrical conduits.	USPTO	US 9435118
406.		115370088	15/04/2018			SAIP	SA 115370088

407.	Mostafa Abdelhamid Ahmed	116380092	17/09/2019	Thigh adhesion quantitative measurement system	The thigh adhesion quantitative measurement system is a sensor system for precisely locating fibers and/or bands of connective tissue formed between layers of body tissue, binding the layers together and not permitting them to glide over each other. This bonding is called an adhesion. The present system is designed to determine quantitatively the degree of adhesion and the location of high-pressure adhesion(s) such that medical removal procedures (e.g., liposuction) can be precisely performed. The system makes use of a scanning device having an array of pressure sensors, the scanning device being defined by a flexible plate wrapped by a belt to a patient's limb, such as a thigh. A flexible cable connects the plate to a body-worn transmitter that wirelessly transmits real-time pressure distribution images received from the flexible plate to a computer for use by doctors preparing for the liposuction procedure.	SAIP	SA 116380092
408.	Promy Virk Khalid Mustafa Osman Ortashi Awatif Ahmed Hendi Manal Ahmed Awad Mai Abdelrahman Elobeid	9480656	01/11/2016	Method of preparing rosemary nanoparticles and encapsulated rosemary nanoparticles	A method of preparing rosemary nanoparticles includes providing a solution including rosemary extract, spraying the rosemary extract solution into boiling water under ultrasonic conditions to produce a sonicated mixture, and freeze-drying the sonicated mixture to produce rosemary nanoparticles. The rosemary nanoparticles and encapsulated rosemary nanoparticles with polymers can have a particle size of about 69 nm to about 99 nm. The rosemary nanoparticles and encapsulated rosemary nanoparticles with polymers can be prepared without the use of metals.	USPTO	US 9480656
409.		116370960	18/07/2016			SAIP	SA 116370960
410.	Mohammad Iqbal Khan	9341558	17/05/2016	System and method for measuring permeation properties of concrete and porous materials	The system for measuring permeation properties of concrete and porous materials includes a chamber having an upper plate, a lower plate, and a plurality of support members, the chamber being configured for holding a specimen. A plurality of supply tubes and a plurality of discharge tubes are in fluid communication with the chamber. A gas flow measurement assembly is in fluid communication with the chamber, the gas flow measurement assembly having a first pressure gauge and a gas flow meter. A water flow measurement assembly is in fluid communication with the chamber, the water flow measurement assembly having a second pressure gauge and a water flow meter. A gas cylinder is in fluid communication with the one of the plurality of supply tubes. The system may be used to measure gas permeability, water permeability, porosity, and absorption of concrete and other porous materials.	USPTO	US 9341558
411.		116370870	02/05/2019			SAIP	SA 116370870
412.	Martin F. Grell Hadi Rasam Alqahtani	9459223	04/10/2016	Method for chemical vapor identification using swelling-based sensors	The method for chemical vapor identification using swelling-based sensors uses an apparatus that having a first gas chamber including a gas inlet port for inletting a hydrocarbon vapor to be analyzed; a second gas chamber having a hydrocarbon vapor outlet port for exiting the vapor; a chemical sensor placed inside the first and the second gas chambers; and a thermometer placed inside the first and the second gas chambers for measuring the internal temperature; wherein the second gas chamber is placed at a lower temperature compared with the first chamber; and wherein the first gas chamber is in communication with the second chamber by a pipe for transmitting the hydrocarbon vapor from the first chamber to the second chamber.	USPTO	US 9459223
413.		116380019	17/09/2019			SAIP	SA 116380019
414.	Khalid Mustafa Osman Ortashi Saba Ameen Al-Adeemy Taieb Aouak Awatif Ahmed Hendi Manal Ahmed Awad Waseem Sharaf Shamsan Saeed	9480749	01/11/2016	Method of preparing a nanocomposite film including starch nanofibers	A method of synthesizing a nanocomposite film including starch nanofibers includes preparing nanofibers from starch, mixing the starch nanofibers with a drug to form a first mixture, adding water to the mixture to provide an aqueous solution, adding hydrochloric acid (HCl) and glycerol to the aqueous solution to provide a second mixture, maintaining the second mixture in a water bath, and drying the second mixture to form a nanocomposite film including starch nanofibers. The drug can be a drug including carboxylic groups. The drug can be acetyl salicylic acid (AsA). The film can be a nano starch/AsA composite film or nanocomposite film. The nanocomposite film can be used as a drug carrier and, thereby, improve drug delivery.	USPTO	US 9480749
415.		116380015	04/04/2019			SAIP	SA 116380015
416.	Hanan Nejer Sahil Alotaibi Waled Mohammad Alshhrani	9427292	30/08/2016	Adjustable fixator for scanning dental casts	The adjustable fixator for scanning dental casts includes upper and lower plates which are adapted for releasably securing a dental cast to be optically scanned therebetween. The upper	USPTO	US 9427292

					and lower plates are selectively vertically adjustable with respect to one another, and a bottom surface of the lower plate is adapted for releasable mounting in an optical scanner. The upper plate is secured to a cylindrical shell which slidably receives a vertical support mounted to the lower plate, allowing the user to slidably adjust the height of the upper plate with respect to the lower plate. An engaging member mounted to the cylindrical support slides within a vertically extending slot formed through the cylindrical shell. The vertical position of the upper plate may be locked by sliding the engaging member into a selected one of a plurality of horizontally extending slots also formed through the cylindrical shell.		
417.		116380164	23/10/2018			SAIP	SA 116380164
418.	Khalid M. Al-balkhi Sahar Faisal Al-Barakati	9370407	21/06/2016	Canine tooth traction device and method	The canine tooth traction device is a 0.019″ ×0.025″ stainless steel sectional wire. It is distally inserted in the molar band of a transpalatal arch anchorage and mesially ligated to a bondable attachment (bracket or button) on the canine tooth. The canine tooth traction device is an elongated member that has a cinching end and an attachment end. The cinching end is 15 mm in length, with 4-5 mm length activation bend of 45° mesial to the molar band. The length of the traction arm from the activation bend to the bondable attachment ligating loop is 40-50 mm. The loop of the attachment end is ligated to the bracket or button. The cinching end is cinched toward and behind the anchor headgear molar tube.	USPTO	US 9370407
419.		116370393	27/09/2018			SAPO	SA 116370393
420.	Layla Al Juhaiman Nagwa Amin Aref Waffa Mekhamer	116370673	01/05/2018	Method of using a clay suspension to prevent viral and phytoplasma diseases in plants	The method of using a clay suspension to prevent viral and phytoplasma diseases in plants includes administering a clay suspension to the plant, such as through spraying the plant's leaves or soaking the plant's nursery shoots with the clay suspension. The clay suspension is applied to the plant to prevent the viral or phytoplasma disease prior to planting the plant in its nursery shoot stage. The clay suspension is preferably formed from natural clay suspended in water (1% w/v). The clay may be in either its natural form, or may be in the form of clay nanoparticles suspended in water. For a suspension formed from clay nanoparticles, the clay nanoparticles may be separated by sedimentation in distilled water.	SAIP	SA 116370673
421.	Khalid Mustafa Osman Ortashi Awatif Ahmed Hendi Manal Ahmed Awad Nada Elzain Eisa Nada Mohammed Merghani	9491947	15/11/2016	Method of synthesizing nanoparticles and a nanoparticle-polymer composite using a plant extract	A method of synthesizing nanoparticles using a plant extract can include providing a first solution comprising a metal salt or a metal oxide, providing a second solution including extract from orange peel, and combining the first solution and the second solution to produce a nanoparticle solution including metal nanoparticles or metal oxide nanoparticles. The nanoparticle solution can be used to produce a crystal nanoparticle powder, a non-crystal nanoparticle powder, and/or a metal-polymer nanocomposite wherein the polymer is polystyrene (PS) or poly-vinyl alcohol (PVA).	USPTO	US 9491947
422.		116370956	07/10/2019			SAIP	SA 116370956
423.	Hatem Abdel-Kader Abdel-Aziz Hazem Ghebeh Abdullah Omar Al-Dhfyan Kamal El-Tahir Pulicat Manogran Monther Al-Alwan	116370418	31/05/2018	Benzo-thiazolo-imidazole compounds and uses thereof	The present invention relates to benzo-thiazolo-imidazole compounds and their uses. Moreover, the present invention relates to pharmaceutical compositions comprising such a benzo-thiazolo-imidazole compound. Furthermore, the present invention relates to the use of such a benzo-thiazolo-imidazole compound for the manipulation of cultured cells.	SAIP	SA 116370418
424.	Sayed Hassan Mohammed Oudah Fars Kaed Masoud Alanazi	117380410	24/01/2018	Triple pharmaceutical formula as rheumatoid anti-inflammatory	In this innovation Topical gel were formulated as Triple anti-inflammatory compositions containing extract of Commiphora myrrha, Ginger and Liqurorice in equal weight ratio (1:1:1) in gm. The pharmaceutical evaluation of the triple anti-inflammatory gel shows noticeable percent of inhibition on the swelling of rat paw edema. This inhibition is much higher in the triple gel in comparison to the single extract alone.	SAIP	SA 117380410
425.	Sameh Rabea Mohammed Fars Kaed Masoud Alanazi Mounir M Salem Bekhit	116380159	26/06/2018	Method for prepare the ghosts of the bacteria using the Tween 80	This patent deals with preparing Ghost bacteria from gram negative bacteria (Salmonella yphimurium) by incubation of the studied bacteria for long period of time with tween 80 which has effect of the surface on high concentration. Then, the bacteria sample was incubated with acidic solution (pH =3.6) for short period of time. The results revealed that the bacteria produced with holes have average diameter of 200 nm. Also, the ghost bacteria founding was indicated by	SAIP	SA 116380159

					measuring the quantity of protein and DNA release before and after treatment. it should be noted that this Ghost bacteria will be used as targeting delivery to cancer in the future.		
426.	Abdullah Othman Nuhait Obida Zeitoun Hany Al-Ansary	116370498	05/07/2018	Multi-effects desalination system	A multi-effects desalination system includes a plurality of vessels, including a first vessel, a second vessel, a third vessel, a fourth vessel, and a fifth vessel. Each vessel includes a plurality of heat tubes, a sprayer, and a housing including a preheater tube bundle. Each sprayer can be disposed above a respective plurality of heat tubes in each vessel for discharging saline water onto the plurality of heat tubes. A first tube connects a compressor unit with the first vessel. A second tube extends between a saline water source and a plurality of sprayers. Each vessel is configured to accommodate a different effect or stage of desalination occurring in the system. The housing can be configured for collecting fresh water. The fresh water collected in each housing can be transferred by the third tube to a fresh water tank.	SAIP	SA 116370498
427.	Mostafa Abdelhamid Ahmed	9251781	02/02/2016	Pulser logic method and system for an ultrasound beamformer	The pulser logic method and system for an ultrasound beamformer is based on using memory blocks instead of ordinary binary counters to accomplish transmit focusing of an ultrasound beam. This method reduces the use count of logic blocks (cost reduction) and facilitates the FPGA floor planner routing, increasing the design overall speed (performance enhancement). The exemplary design disclosed herein is for sixteen channels, but can be adjusted for any number of beamformer channels. The design may use, for example, a Xilinx Spartan-3 field programmable gate array (FPGA).	USPTO	US 9251781
428.		116370497	27/09/2018			SAIP	SA 116370497
429.	Mansour Hamad Al Askar	9314243	19/02/2016	Gingival graft stabilizer	A gingival graft stabilizer has an elongate member and slanted arms extending from opposing ends of the elongate member. An anterior guide extends from one of the arms and a posterior guide extends from the other arm. The anterior guide includes spaced protrusions extending from an upper end of the anterior guide. The posterior guide includes spaced protrusions extending from opposing sides of the posterior guide. During suturing of a gingival graft, a dental surgeon holding the elongate member can stabilize and position a gingival graft on anterior gingiva using the anterior guide or on posterior gingiva using the posterior guide. Sutures can be made in the spaces between and around the protrusions of the anterior guide or the posterior guide.	USPTO	US 9314243
430.		116370496	31/05/2018			SAIP	SA 116370496
431.	Mohd Aftab Alam	10518070	31/12/2019	Device for powdering a solid unit dosage form of medication and administering the powder form	The device for powdering a solid unit dosage form of medication and administering the powder form includes an applicator, a powdering tool and, in certain embodiments, a cap. The device is used to create a powder form from a solid unit dosage form, and then administer the powder form to a body cavity of a patient. The cap is provided with an integrated powdering tool, allowing an open end of an applicator barrel to be releasably covered thereby. Manipulation of the powdering tool creates the powder form through abrasion of a solid unit dosage form of the medication received within the barrel. The cap and powdering tool may then be removed, leaving the powder form of the solid unit dosage form to be administered to the body cavity, such as a patient's vagina or rectum.	USPTO	US 10518070
432.	Promy Virk Khalid Mustafa Osman Ortashi Awatif Ahmed Hendi Manal Ahmed Awad Mai Abdelrahman Elobeid	10517905	31/12/2019	Fabrication of probiotics nanowhiskers using cheese	A method of fabricating probiotics nanowhiskers using cheese comprises cutting and grinding cheese to produce cheese powder; mixing the cheese powder with sulfuric acid to produce a solution; stirring the solution to produce a stirred solution; and filtering the stirred solution to produce the probiotics nanowhiskers. The fabricated probiotics nanowhiskers possess antioxidant, anti-inflammatory, antitumor, and antimicrobial properties. The probiotics nanowhiskers may reduce cadmium concentration in a patient's liver. The probiotics nanowhiskers may also ameliorate the oxidative stress assessed as a decrease in the serum MDA levels in a patient.	USPTO	US 10517905
433.	Hany Mohamed Yehia Mohamed Fekry Serag El - Din Hatem Salama Mohamed Ali Mohamed Saleh Alamri Wafa Abdullah Al - Megrin Fawzy Elkhadragy	10500244	10/12/2019	Synthesis of black eggplant (Solanum melongena) skin antioxidant nanoparticles	The black eggplant skin antioxidant nanoparticles may be manufactured by extracting black eggplant skins in a solvent, spraying the black eggplant skin extracts into boiling water under ultrasonic conditions to produce a first mixture, sonicating the mixture, stirring the mixture, and drying the mixture to obtain black eggplant skin antioxidant nanoparticles. In an embodiment, the black eggplant skin may be skin of Solanum melongena. In an embodiment, the black eggplant skin nanoparticles may have improved antibacterial or antioxidant properties.	USPTO	US 10500244

	Manal Ahmed Gasmelseed Awad						
434.	Fozeyah Saleh Almiman	10500645	10/12/2019	Method of synthesizing silver nanoparticles using mint extract	A method of synthesizing silver nanoparticles using mint can include providing a solution including silver nitrate, providing an extract of mint, mixing the silver nitrate solution and the extract solution to form an aqueous mixture, and resting the aqueous mixture for a period of time to form the silver nanoparticles. The mint can be mint grown and harvested in Medina, Saudi Arabia.	USPTO	US 10500645
435.	Yahia Nasser Mabkhot Jamal Mohammed Ali Khaled Naiyf Sultan Helial Alaloi Alharbi Fahd Ali Nasr Mohammed Fahd Abdo Almekhlafi Nael Mahmmoud Abutaha Salim S. Al - Showiman	10501426	10/12/2019	Synthesis of thiazole derivative as anticancer and anti-antibiotics resistant bacteria agent	A thiazole derivative compound includes a compound having the following structural formula:  or a pharmaceutically acceptable salt thereof.	USPTO	US 10501426
436.	Sahar Asaad Alzain Ohood Turkistani	10492895	03/12/2019	Facebow with double bite forks	The facebow with double bite forks uses two bite forks. The bite forks are connected to one common handle of the bite fork secured to the facebow frame. The assembly for the two bite forks helps to maintain a predetermined vertical distance of 1.5 centimeters between them. An infraorbital pointer is also attached to the facebow frame. It is secured in place to act as the anterior reference point. The adjustable earpieces inserted into the patient's external auditory meatuses are adjusted to be considered as posterior reference points. This assembly helps to record the facebow and centric relation positions simultaneously.	USPTO	US 10492895
437.	Nabil Ahmed Qassim Al-Zeqri Isra Abd Alrhman Aboasbah Ali Mohammed Alsalme Mohammed Suleiman Shtaya Iyad Atallah Saadeddin Abdelkader Zarrouk Ismail Khalil Warad	10494722	03/12/2019	Sulfonamide corrosion inhibitors	The sulfonamide corrosion inhibitors are compounds of formula A or formula B, as follows:	USPTO	US 10494722

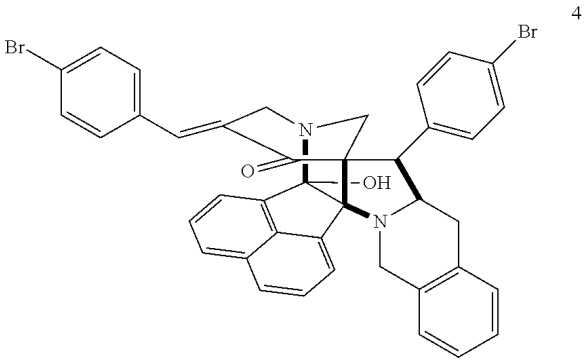
					A  B  A method of synthesizing the sulfonamide corrosion inhibitors includes functionalizing a polyamine precursor with a sulfonyl chloride derivative by dehydrochlorination. The polyamine precursor may be bis(3-aminopropyl)amine and the sulfonyl chloride derivative may be methanesulfonyl chloride. The sulfonamide corrosion inhibitors may be applied alone or in any combination as corrosion inhibitors of a metal and are shown to be effective inhibitors of corrosion of iron or iron alloys in acidic conditions.		
438.	Mohamed Amine Mekhtiche Mansour Mohammed A. Alsulaiman Hassan Ismail H. Mathkour Mohamed Abdelkader Bencherif Mohammed Faisal Abdulqader Naji Mohammed Mahdi Algabri Ghulam Muhammad Abdul Wadood	10485171	26/11/2019	Tree harvesting tool	The tree harvesting tool is a tool adapted for attachment to a conventional lifter or lifting device for performing harvesting and pre-harvesting operations on a fruit tree. The tree harvesting tool includes a cylindrical shell, having an upper end and a lower end, at least one portion of the cylindrical shell defining a door. The cylindrical shell is adapted for encircling the trunk of the tree. A plurality of panels are pivotally secured to the lower end of the cylindrical shell to define an openable floor having a central opening for receiving the trunk of the tree. A circular track is mounted on the upper end of the cylindrical shell, such that a movable platform may be mounted	USPTO	US10485171

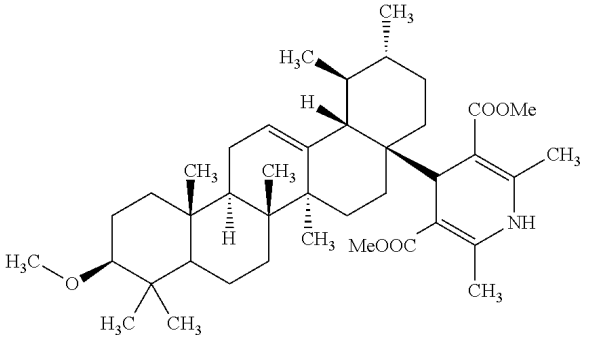
	Hamid Abdulsalam Ghaleb Khalid Nasser Almutib Hedjar Tahar Ramdane Amin Umar Syed Fadl Dahan Naji Hamdi Taher Altaheri				thereon. A robotic arm is mounted on the movable platform for selectively operating and manipulating a tool for performing tree harvesting and pre-harvesting operations.		
439.	Asma'a Abdurrahman Al - Ekrish Shouq Abdullah Jurays	10485632	26/11/2019	Intraoral attachment clip for attachment of objects to edentulous ridges	The intraoral attachment clip for attaching objects to edentulous ridges has a flexible body configured as an elongated U-shaped strip that is designed to be conformed to an edentulous ridge. The clip has a lower or tissue surface adapted for contacting the mucosal surface of the ridge and an upper or oral surface facing the oral cavity. The tissue surface of the clip includes a plurality of micro-projections and an adhesive for securing the device to the underlying mucosal surface of the edentulous ridge. Tracking sensors and/or radiopaque fiducial markers can be attached to the oral surface of the clip for use with surgical navigation systems and imaging procedures. Sustained release drugs may be added to the tissue surface of the device for administering time-release medications through the mucosa over a prolonged period of time.	USPTO	US 10485632
440.	Abdullah Mohammed Al - Mayouf Matar Naif Al - Shalwi	10488323	26/11/2019	Steel panel with an integrated corrosion sensor	The steel panel with an integrated corrosion sensor is a steel panel having an integrated sensor for monitoring dissolution of a magnetite layer during acid cleaning of the steel panel. The steel panel has an opening formed therethrough, and a hollow insulator is secured to the steel panel within the opening. The hollow insulator is formed from an electrical insulation material and electrically isolates the steel panel from a steel core, which is mounted within the hollow insulator. A reference electrode is positioned near the steel panel. A voltmeter is electrically connected between the reference electrode and a first surface of the steel core. An opposed second surface of the steel core has a layer of magnetite formed thereon. An alarm is in electrical communication with the voltmeter, such that the alarm generates an alarm signal when the voltmeter detects a corrosion potential at a preset threshold potential.	USPTO	US 10488323
441.	Abdulmonem Alsiddiky Raheef Mohamed Alatassi	10507014	07/12/2019	Surgical retractor	A surgical retractor includes an elongated body having a handle portion, a retractor arm connected to the handle portion, a retractor tip at an end of the retractor arm, and a suction connector extending through a wall of the handle portion. An inner retractor cavity extends within the retractor from the suction connector to an opening at an outer surface of the retractor tip. The suction connector can be selectively connected to an external suction or vacuum device. The surgical retractor can be used to hold and/or move tissues to expose a surgical field and to collect blood, fluid, smoke, and/or surgical debris from a surgical field.	USPTO	US 10507014
442.	Husain Abbas Abdullah H. Alsabhan Yousef A. Al - Salloum Abobaker S. Binyahya	10480149	19/11/2019	System for constructing a retaining wall	The system for constructing a retaining wall can be used to construct a segmental retaining wall for retaining earth, on either side, at two different levels. The system includes a plurality of blocks. Each block has laterally opposed first and second end portions, a central portion and a neck portion. The central portion is positioned between the first end portion and the neck portion, and the neck portion is positioned between the second end portion and the central portion. The central portion has a longitudinal length less than a longitudinal length of the first end portion, the second end portion has a longitudinal length less than the longitudinal length of the central portion, and the neck portion has a longitudinal length less than the longitudinal length of the second end portion. A plurality of pegs can vertically interlock adjacent blocks. Tie connectors can connect the blocks to an external pipe.	USPTO	US 10480149
443.	Khaled Issa Muhammad Ahmed Ashraf Waleed Tariq Sethi Habib Fathallah Saleh Alshebeili	10483640	19/11/2019	Omnidirectional ultra-wideband antenna	The omnidirectional ultra-wideband antenna is a variant on a monocone antenna, particularly including a supplemental radiating element. The omnidirectional ultra-wideband antenna includes an electrically conductive conical surface having a vertex end and a base end, and a supplemental radiating element having a first portion and a second portion. The first portion extends from the base end of the electrically conductive conical surface, the first portion being positioned between the base end of the electrically conductive conical surface and the second portion. The vertex end of the electrically conductive conical surface is positioned adjacent to, and spaced apart from, a first surface of a ground plane plate. At least one electrically conductive rod is provided, a first end of the rod being secured to the second portion, and a second end of each rod being mounted on the first surface of the ground plane plate.	USPTO	US 10483640

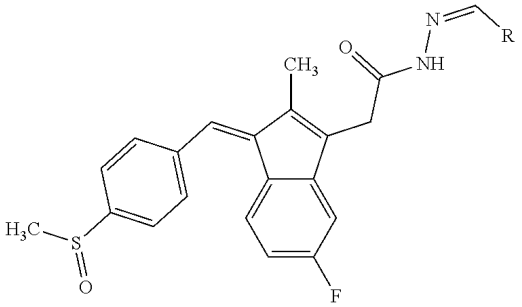
444.	Mohamed Ramy Abdel - Rahman Mohammad Abdulaziz Alduraibi Bouraoui Ilahi	10481006	19/11/2019	Thermal sensing layer for microbolometer and method of making the same	The thermal sensing layer for a microbolometer includes a Ge1-xSnx film layer, where 0.17≤x≤0.25. The Ge1-xSnx film layer may be deposited on a substrate layer, such as pure silicon. An additional layer of silicon dioxide may be added, such that the silicon dioxide layer is sandwiched between the silicon substrate and the Ge1-xSnx film, In order to make the Ge1-xSnx thin film layer, germanium (Ge) and tin (Sn) are simultaneously sputter deposited on the substrate, where the atomic ratio of germanium to tin is between 0.83:0.17 and 0.75:0.25 inclusive. The sputter deposition may occur in an argon atmosphere, with the germanium having a deposition rate of 9.776 nm/min, and with the tin having a deposition rate between 2.885 nm/min and 4.579 nm/min.	USPTO	US 10481006
445.	Abdullah M. Al - Enizi Tansir Ahamad Ayman Yousef	10456776	29/10/2019	Method of fabricating a photocatalyst for water splitting	The method of fabricating a photocatalyst for water splitting includes electrospinning a Zn-based solution mixed with CdS nanoparticles and then calcining to produce CdS nanoparticle decorated ZnO nanofibers having significant photocatalytic activity for water splitting reactions. The photocatalyst fabricated according to the method can produce H2 at a rate of 820 μmolh−1g−1 catalyst from aqueous solution under light irradiation.	USPTO	US 10456776
446.	Jothi Ramalingam Rajabathar Hamad Abdullah Al-Lohedan Judith J. Vijaya M. Sivachidambaram	10504662	10/12/2019	Supercapacitor using porous activated carbon cow dung	The method of making a supercapacitor using porous activated carbon from cow dung includes converting cow dung to porous activated carbon by, in a first step, preparing the dung waste by washing and drying the dung waste, and heating the dung waste in a vacuum environment to form pre-carbonized carbon. In a second step, the pre-carbonized carbon is impregnated with phosphoric acid to form a slurry, which is dried, ground, and heated in a vacuum to between 600-900° C. to form porous activated carbon. The porous activated carbon is mixed with a binder, acetylene black, and an organic solvent to form a paste, which is dried on a conductive metal foil to form an electrode. Two such electrodes (an anode and cathode) to are coated with an electrolyte gel (e.g., aqueous potassium hydroxide) and separated by a polymer (e.g., PTFE) membrane to form the supercapacitor.	USPTO	US 10504662
447.	Rabab Abd El Moneim Khalil El Dib Shaza Mohamed Adel Al-Massarani Manal Ahmed Gasmelseed Awad Ali Ali Hasan El Gamal	10442833	15/10/2019	Synthesis of ursolic acid nanoparticles	The synthesis of ursolic acid nanoparticles includes dissolving ursolic acid powder in methanol, boiling water for five minutes, and adding the methanol solution to the boiled water dropwise at a flow rate of 0.1-0.3 ml/min under ultrasonic conditions. After sonication for 20 minutes, the contents are stirred for about 15 minutes, and then dried. Particle size distribution studies and TEM micrographs confirm the resulting product comprises nanoparticles. In vitro testing confirms the ursolic acid nanoparticles exhibit greater anticancer activity than conventional-size particles, and that the nanoparticles exhibit antimicrobial effect against gram positive and gram negative bacteria, as well as fungi.	USPTO	US 10442833
448.	Sulieman Saleem B. Al-Johany	10442601	15/10/2019	Mobile device system for dispensing oral consumables	A system for dispensing oral consumables includes a mobile device and an oral consumables dispenser attached to the device. The dispenser can include a retractable holder for storing the oral consumables. As mobile electronic devices and their associated accessories are carried by most people for lengthy periods throughout the day, the system for dispensing oral consumables can facilitate timely consumption of oral consumables.	USPTO	US 10442601
449.	Ali Mohamad Ali Alsamhan Ahmed Nageeb Ahmed Badwelan	10442029	15/10/2019	Method of friction stir spot welding	The method of friction stir spot welding uses a database of stored optimization parameters to maximize welding strength for an input type of material and an input geometrical parameter of the material, such as its thickness. Experiments are performed for a variety of different materials having different thicknesses. Each experiment performed for each material and each thickness associated with the material measures the welding strength of a friction stir spot welding process for varying values of an initial dynamic welding parameter, a final dynamic welding parameter and a type of varying function. The values of the initial dynamic welding parameter, final dynamic welding parameter and type of varying function that maximize the measured welding strength for the selected material and its selected thickness are stored in a lookup table. A rotating tool may then be controlled using these optimized values in order to maximize welding strength.	USPTO	US 10442029
450.	Waleed Tariq Sethi Khaled Issa Muhammad Ahmed Ashraf Habib Fathallah Saleh Alshebeili	10431893	01/10/2019	Omnidirectional multiband antenna	The omnidirectional multiband antenna is a variant on a monocone antenna, particularly including a corrugated extending surface for lowering the low frequency cutoff of the monocone antenna. The omnidirectional multiband antenna includes an electrically conductive conical surface, having a vertex end and a base end, and at least one electrically conductive annular member mounted on the base end. The at least one electrically conductive annular member is formed from a plurality of stacked segments and has a corrugated exterior surface. The vertex	USPTO	US 10431893

					end of the electrically conductive conical surface is positioned adjacent to, and spaced apart from, a first surface of a ground plane plate. A plurality of cylindrical rods is provided, a first end of each rod being secured to the at least one electrically conductive annular member, and a second end of each rod being mounted on the first surface of the ground plane plate.		
451.	Ayman Hassan Al-Jazaeri Amro Fayez Al-Habib	10426634	01/10/2019	Expandable intervertebral cage	The expandable intervertebral cage includes an upper block and a lower block movable relative to each other. The lower block defines a cam surface and the upper block defines a cam follower surface. Linkages connecting the upper and lower blocks maintain contact between the cam and cam follower surfaces. By rotating a screw, which extends through the lower block, the cam follower surface of the upper block is pushed along the cam surface of the lower block, thus resulting in vertical and horizontal displacement between the upper and lower blocks. Proximal and distal yokes in the blocks define protrusions in the cam and cam follower surfaces. When the cam follower surface slides along the cam surface, the protrusions cause vertical and angular displacement in the upper block, providing distraction, reduction, and lordosis of attached vertebra.	USPTO	US 10426634
452.	Mohammed Saeed A. Alqahtani Ali Saeed Althabit Alqahtani Rabbani Syed S. Baji	10420731	24/09/2019	Method of synthesizing lignin-based nanocompositions	A method of preparing lignin-based nanoparticles includes using a phase separation method, stabilized by citric acid (CA) crosslinking. The compositions include lignin-based nanoparticles (LG NPs) and a drug or pharmaceutical treating agent encapsulated in the LG NPs. A mean particle size diameter of the drug-loaded LG NPs can be less than 100 nm. The LG NPs improve oral bioavailability, and achieves rapid absorption of the encapsulated drug.	USPTO	US 10420731
453.	Wajhul Qamar Mohammad A. Altamimi	10412928	17/09/2019	Push button operated rodent restrainer	The push button operated rodent restrainer is designed to hold a rodent in position to access their tail veins during tail vein injections or for extraction of blood. The assembly includes a base rectangular platform supporting two hinged, transparent half-cylinders. When the assembly is closed, the half-cylinders form a closed tube, which restrains the rodent. The half-cylinders are made of transparent plastic to allow laboratory staff to observe the rodent. The tube facilitates restraining the rodent and includes a longitudinal slit to allow proper ventilation while the rodent is restrained. One end of the closed tube has a slot, which allows the rodent's tail to protrude outside the tube for access to the tail. A push button mounted on a resilient lever is connected to the tube halves such that when the push button is depressed, the tube opens, and when the push button is released, the tube closes.	USPTO	US 10412928
454.	Husain Abbas Yousef A. Al-Salloum Tarek H. Almusallam Hussein Mohamed Elsanadedy Mohammad Alrubaidi	10415230	17/09/2019	Strengthening system for beam-column connection in steel frame buildings to resist progressive collapse	The strengthening system for beam-column connections in steel frame buildings to resist progressive collapse helps to mitigate progressive collapse in the event of accidental column loss by using a system of rippled steel plates reinforcing the beam-column connection. Various configurations of rippled steel plates are provided to connect in-plane and transverse beams at a joint. In the event of severe damage caused to a column of a steel framed building, the upper joints of the damaged column undergo downward movement. The rippled plates at the joint straighten during the initial downward movement, and resist further downward movement after complete straightening of the ripples. This helps in the development of catenary action in steel beams. The proposed system is simple, fast to construct, demountable, and easy to repair/replace after damage caused by blast loads.	USPTO	US 10415230
455.	Muhammad Ahmad Ashraf Waleed Tariq Sethi Khaled Issa Habib Fathallah Saleh Alshebeili	10411357	10/09/2019	Ultra-wideband unipole antenna	The ultra-wideband unipole antenna is a variant on a monocone antenna, including a plurality of electrically conductive rods that act as a parallel inductive-capacitive (L-C) network for improving the impedance match between the radiating element of the antenna and the antenna's feed. An electrically conductive conical surface having a vertex end and a base end acts as the radiating element. The vertex end is positioned adjacent to, and spaced apart from, a ground plane plate. Each electrically conductive rod has opposed first and second ends, the first end being secured to the electrically conductive conical surface, and the second end being secured to the ground plane plate. A coaxial cable feed line has a center conductor and an outer conductor. The center conductor is in electrical communication with the vertex end of the electrically conductive conical surface, and the outer conductor is in electrical communication with the ground plane plate.	USPTO	US 10411357
456.	Atif Ahmed Saleh Alghamdi	10406048	10/09/2019	Dental chair attachment for supporting wheelchairs	The dental chair attachment for supporting wheelchairs attaches to the back of a dental chair and reclines a wheelchair when the dental chair is reclined. The wheels of the wheelchair are rolled onto wheel ramps on opposing sides of a back support. Two upper clamps attach the dental chair attachment to the top of the dental chair, and two lower clamps attach the wheelchair to the dental	USPTO	US 10406048

					chair attachment. When reclining the dental chair, wheels on the bottom of the back support allow the dental chair attachment to recline simultaneously with the chair by rolling in a direction opposite the dental chair.		
457.	Manal Ahmed Gasmelseed Awad Promy Virk Rabia Qindeel Khalid Mustafa Osman Ortashi Mai Abdelrahman Elobeid	10398744	03/09/2019	Synthesis of mustard seed nanoparticles	The mustard seed nanoparticles may be synthesized by washing mustard seeds, drying and crushing the washed mustard seeds, extracting the crushed mustard seeds to produce a mustard seed extract, spraying the mustard seed extract into boiling water, sonicating the mustard seed extract and boiling water mixture, and centrifuging the mustard seed extract and boiling water mixture to obtain mustard seed nanoparticles. The mustard seed nanoparticles may be used in a pharmaceutical composition.	USPTO	US 10398744
458.	Jothi Ramalingam Jesu Doss Judith Vijaya Hamad Al-Lohedan	10398726	03/09/2019	Template-free method of preparing zeolites from biomass	A template-free method of preparing zeolites from biomass can include using rice husk ash waste material as a precursor material. The zeolites can include ZSM-5 zeolites, such as, hierarchical pure zeolites and metal-loaded (Cu, Ni) ZSM-5 zeolites. This method allows for production of zeolites in a low cost and environmentally friendly manner. These ZSM-5 zeolites may be used for numerous applications, including killing cancer cells. The cancer cells may be human lung cancer cells.	USPTO	US 10398726
459.	Thamer Ali Albahkali Hany Hassan Aly Sayed Mohamed Elsayed Mohamed Bassuni	10397989	27/08/2019	Oven with temperature probe	The oven with a temperature probe measures the temperature of food being cooked within the oven to provide real time feedback for determining a status of the food being cooked, such as, for example, indications that the food is fully cooked, partially cooked or uncooked. The oven with a temperature probe is similar to a conventional oven, but with a telescopic tube which selectively extends into the cooking chamber of the oven. An upper end of the telescopic tube is mounted within an open interior of a hollow upper wall of the oven, and a lower end of the telescopic tube defines a probe tip, containing a temperature sensor for measuring an internal temperature of the food being cooked. When not in use, the telescopic tube collapses fully within the open interior of the hollow upper wall. A display indicates cooking status of the food, based on the measured temperature.	USPTO	US 10397989
460.	Zeyad Abdulwahid Ghaleb Haidar Jamel Orfi	10384165	20/08/2019	Solar desalination system	The solar desalination system is a hybrid system combining a Fresnel solar concentrator with a desalination chamber, and which uses membrane distillation for desalination of seawater. The desalination chamber includes a lower wall having a central absorber base, at least one sidewall, and an upper wall. A pair of hydrophobic membranes are mounted within the desalination chamber such that a central chamber is defined therebetween above the absorber base. The desalination chamber is suspended above a linear Fresnel reflector array so that the absorber base is positioned at a focal line thereof. Seawater is fed into the central chamber, where it is heated to produce water vapor, which passes through the pair of hydrophobic membranes into a pair of condensate retrieval chambers. The water vapor cools in the pair of condensate retrieval chambers, and may then be removed in the form of pure water.	USPTO	US 10384165
461.	Ali A. Alshatwi Jegan Athinarayanan Vaiyapuri Subbarayan Periasamy	10383976	20/08/2019	Method of fabricating nanostructures from fish waste	The fabrication of nanostructures from fish waste is a method of co-fabricating C-dots and hydroxyapatite from fish scales. The method includes hydrothermal treatment of fish scales to simultaneously produce hydroxyapatite nanostructures and C-dot nanostructures. The C-dots may be used as probes for fluorescent imaging. The hydroxyapatite nanostructures may be used for tissue engineering applications.	USPTO	US 10383976
462.	Manal Ahmed Gasmelseed Awad Rabia Qindeel Khalid Mustafa Osman Ortashi Awatif Ahmed HENDI	10384945	20/08/2019	Method of producing silica nanoparticles using sand	A method of producing silica nanoparticles using sand can include mixing white sand with H_2SO_4 and H_3PO_4 to form a mixture. The mixture can be stirred in an ice bath. $KMnO_4$ can then be added to the mixture while maintaining the temperature of the mixture below 5° C. The resulting suspension can be reacted for about 3 hours to about 5 hours on ice. The suspension is stirred in an ice bath and then maintained in a water bath at a temperature of 40° C. for about 90 minutes to about 120 minutes. Afterwards, the temperature is adjusted to and maintained at 98° C. for another period of about 90 minutes to about 120 minutes while adding water. H_2O_2 can be added to the suspension after adding the water to produce a reaction product with a precipitate. The reaction product can then be dried and calcinated to provide the silica nanoparticles.	USPTO	US 10384945
463.	Mohd Aftab Alam Fahad Ibrahim Al-Jenoobi Mohamed Hamed M. Al-Agamy	10379016	13/08/2019	Apparatus for inoculating agar plate	The apparatus for inoculating agar plates includes a spray chamber having an upper opening for receiving an atomized microbial suspension and a lower opening for receiving an agar plate. The apparatus also includes an atomizer including a reservoir and a fluid tube for delivering the microbial suspension to the atomizer nozzle. A containment feature extends around an inner	USPTO	US 10379016

					surface of the spray chamber to catch any drop that may form on its inner wall and advance down towards the lower opening. The spray chamber allows multiple agar plates to be quickly inoculated without cross-contamination of agar habitats, without contaminating the outside of the plates, and without contaminating the work area.		
464.	Khalid Abdullah Ibrahim Alruhaimi	10368880	06/08/2019	Universal base attachment bit and cutting bit assembly	A universal base attachment bit and cutting bit assembly includes a base attachment bit and a cutting bit. The base attachment bit includes an outer threaded portion at a first end, a latch at an opposing second end, and at least one multi-sided gripping portion between the latch and the first end. The cutting bit includes a hollow cylindrical outer body and a cylindrical coupling portion within the cylindrical outer body. The cylindrical outer body includes a peripheral wall having opposed first and second open ends and a cutting edge at the first end. The coupling portion is spaced from the peripheral wall of the cylindrical body and includes an inner thread along an inner surface thereof.	USPTO	US 10368880
465.	Promy Virk Manal Ahmed Gasmelseed Awad Amnah El-Enazy Awatif Ahmed HENDI Mai Abdelrahman Elobeid Wagealla Rabia Qindeel	10363218	30/07/2019	Synthesis of probiotic nanoparticles	A method of preparing probiotic nanoparticles can include dissolving formulated probiotics in methanol, spraying the methanol solution into boiling water under ultrasonic conditions to provide a sonicated solution, and stirring the sonicated solution to obtain probiotic nanoparticles. The probiotic nanoparticles may be cluster or rod-shaped. The probiotic nanoparticles may be administered to a subject to reduce oxidative stress or to treat diseases associated with oxidative stress.	USPTO	US 10363218
466.	Ehab Salaheldin Awad Mohamed	10359566	23/07/2019	Planar waveguide converter	The planar waveguide converter is a silica-glass, bi-directional planar waveguide converter, providing conversion from an input from a single-mode waveguide to an output for a three or four-mode waveguide. Conversion takes place through an intermediate stage of a pair of two-mode waveguides. In the initial stage, the input from the single-mode waveguide passes through a V-shaped, graded-index mode slicer, where it is converted into a pair of two-mode signals. In the intermediate stage, each of the two-mode signals is received by a corresponding diamond or quadrilateral-shaped phase shifter. The output of each phase shifter is transmitted to an M-shaped, graded-index mode combiner, which outputs either a three or four-mode signal.	USPTO	US 10359566
467.	Abdulrahman Ibrahim Almansour Raju Suresh Kumar Natarajan Arumugam Kotresha Dupadahalli Jose Carlos Menendez	10357485	23/07/2019	Anti-cancer compound	An anti-cancer compound is a compound having the following structural formula: 4  or a pharmaceutically acceptable salt thereof.	USPTO	US 10357485
468.	Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi Ali Kanakhir Aldalbahi Reema Abdullah Alnamlah	10358356	23/07/2019	Synthesis of zinc oxide nanoparticles using Cymbopogon proximus extract	A method of synthesizing zinc oxide nanoparticles includes preparing a liquid extract of Cymbopogon proximus, dissolving zinc salt in the liquid extract to provide an extract with zinc salt, adding a base to the extract with zinc salt to form a precipitate including zinc oxide nanoparticles. The method overcomes the drawbacks associated with prior chemical methods of synthesizing nanoparticles, while providing increased yield of the nanoparticles.	USPTO	US 10358356
469.	Sara Mohammad Al Taweel	10363121	30/07/2019	Kit for measuring vertical dimension for dental restoration	The kit for measuring vertical dimension for dental impression provides a tool for measuring a difference between a dental patient's desired vertical dimension and the patient's vertical dimension prior to a dental restoration procedure. The kit includes a base, a plurality of	USPTO	US 10363121

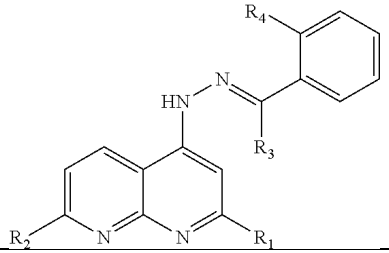
					measurement sheets, and dental impression wax. The base includes a planar member having first and second longitudinally opposed ends and opposed upper and lower surfaces. The upper surface has at least one longitudinally extending groove defined therein. First and second legs are secured to the first and second longitudinally opposed ends of the planar member and extend downward from the lower surface. Each measurement sheet has opposed upper and lower surfaces and at least one longitudinally extending rib formed on the lower surface and at least one longitudinally extending groove defined in the upper surface. Each of the plurality of measurement sheets has a known thickness.		
470.	Abd El-Galil E. Amr Mohamed A. Al-Omar Abdulrahman A. Almehizia Mohammed Mater Alanazi Nawaf Abdulaziz Alsaif Ahmad Jomah Obaidullah	10343997	09/07/2019	Ursolic acid derivatives	An ursolic acid derivative can have the following structural formula:  The ursolic acid derivative exhibits potent selective calcium channel blocker activities and may be used to treat a disease or condition for which calcium channel regulation is useful.	USPTO	US 10343997
471.	Saad Abdulmohsen M. Alabdulkarim	10342319	09/07/2019	Wearable load carrier	The wearable load carrier is a body-mounted carrier for carrying and transporting loads, such as boxes, packages, containers and the like. The wearable load carrier is supported by the back or torso and shoulders of the user, and is adjustable to receive and carry loads of varying sizes and configurations. The wearable load carrier includes a pair of rails, each having an upper end and a lower end, which partially define a carrier frame. A support platform is provided for supporting the load. The support platform includes front and rear edges, the front edge being selectively secured to and extending between the pair of rails at an adjustable height and tilt. A pair of shoulder straps, a waist strap and a chest strap are provided for releasably securing the carrier to the user's back or torso.	USPTO	US 10342319
472.	Heba Abdullatif Kurdi Mohannad Yousef Abdulghani	10336555	02/07/2019	Baggage handling and delivery system	The baggage handling and delivery system provides a plurality of secure pickup stations for individual passengers to receiver their baggage. A plurality of interconnected conveyer belts are used to create a variety of different routes for baggage to follow, with each individual route terminating at a pickup station. Each baggage item is provided with an identifier, such as a bar code, a radio frequency identification (RFID) tag or the like, such that each item of baggage associated with an individual passenger is routed to the specific pickup station assigned to that passenger. Under guidance of a connected controller, each item of baggage entering the baggage handling and delivery system is scanned and routed along a specific path to be received by the appropriate pickup station. Each pickup station is secure and accessible only to the assigned passenger.	USPTO	US 10336555
473.	Eman Mohammed Saad Bin Saleh	10335022	02/07/2019	Ear-mounted dental mirror support	The ear-mounted dental mirror support includes two arms, each having a hooked end configured to wrap around the back of an ear. The arms are connected to a cross-member at the end opposite the hook. A multi-rod adjustment member is pivotally attached to the cross-member. A mirror is pivotally attached to the free end of the adjustment member. The device is designed to be secured to a patient's ears by the arms with the cross-member resting on the patient's chin. The mirror can be adjusted to reflect different portions of the patient's mouth to help a person applying treatment visualize the treatment zone. The arms and cross-member may include projections to assist in securing a dental dam in place around the patient's mouth.	USPTO	US 10335022

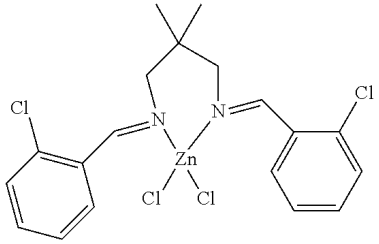
474.	Mashooq Ahmad Bhat Mohamed A. Al-Omar Nawaf Abdulaziz Alsaif Syed Hidayathulla	10329249	25/06/2019	Sulindac derivatives	The sulindac derivatives are compounds of the formula:  wherein R is one of twenty-five substituted or unsubstituted phenyl substituents; and pharmaceutically acceptable salts thereof. The sulindac derivatives are synthesized by refluxing sulindac hydrazide with appropriately substituted benzaldehydes in the presence of ethanol and catalytic amounts of glacial acetic acid. The sulindac derivatives may be used as active ingredients in pharmaceutical compositions for the treatment of inflammation or inflammatory diseases. The sulindac derivatives may also be used as analgesic and/or gastric sparing agents.	USPTO	US 10329249
475.	Mohd Aftab Alam Fahad Ibrahim Al-Jenoobi	10330596	25/06/2019	Apparatus and method for testing the ability of materials to protect photolabile materials	The apparatus and method for testing the ability of materials to protect photolabile materials provides an accurate measurement by directly observing the degradation level in a photolabile material. The apparatus is an assembly having primary and secondary cells and a light source. The primary and secondary cells are arranged in different configurations with respect to one another such that any light that reaches the photolabile materials must first go through the protective material under test. The method includes placing a protective material under test in the primary cell; placing a photolabile material in the secondary cell; subjecting the assembly to a light source for a predetermined amount of time; and removing and testing the photolabile material for degradation.	USPTO	US 10330596
476.	Saad Abdulmohsen M. Alabdulkarim	10328539	25/06/2019	Assistive device for heavy tool operation	An assistive device for heavy tool operation includes a rectangular frame and four legs extending from the corners of the frame. A tool base can extend through a slot in the frame. The tool base is configured to support a mechanical support arm and tool. A height and horizontal position of the tool base relative to the frame is adjustable. Each leg is connected to a wheel to allow the assistive device to travel with a user. The assistive device can support a majority, if not all, of the weight of an attached heavy tool and mechanical support arm, while allowing the user to operate the tool and adjust its position with minimal applied force.	USPTO	US 10328539
477.	Manal Ahmed Gasmelseed Awad Khalid Mustafa Osman Ortashi Awatif Ahmed HENDI Wadha Khalaf Alenazi Ali Aldalbahi	10301187	28/05/2019	Synthesis of titanium dioxide nanoparticles using Cymbopogon proximis	Synthesis of titanium dioxide (TiO_2) nanoparticles (NPs) includes mixing *Cymbopogon proximis* (Maharayb) grass extract with Titanium (IV) isopropoxide (TTIP). The synthesis is simple and occurs at a rapid rate. The synthesized TiO_2 nanoparticles can be effective in degrading Rhodamine B dye under UV light irradiation. Accordingly, the TiO_2 nanoparticles can be useful in purifying drinking water.	USPTO	US 10301187
478.	Qazi Emad Ul Haq Muhammad Hussain Hatim Abdulrehman Aboalsamh	10299694	28/05/2019	Method of classifying raw EEG signals	The method of classifying raw EEG signals uses a classification method based on nuclear features extracted as dominant singular values from an EEG signal segment using singular value decomposition (SVD) and a class means-based minimum distance classifier (CMMDC) to classify a patient's EEG signals. From a mean EEG signal, a set of zero-centered EEG signals are calculated, and from the zero-centered EEG signals and a standard deviation of the EEG signals, a unit variance is calculated for each component. Using the standardized component signals a nuclear matrix is calculated, to which singular value decomposition is applied to generate a set of singular values. The CMMDC is applied to class means associated with first and second classes and a nuclear feature vector to classify the patient's EEG signals as belonging in either the first or second class.	USPTO	US 10299694

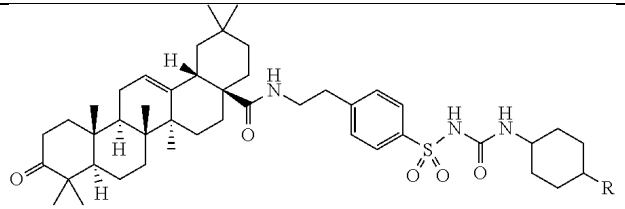
479.	Mohammad Iqbal Khan Galal Fares	10301218	28/05/2019	Low cement content strain-hardening cementitious composite	The low cement content strain-hardening cementitious composite is cement with a natural pozzolan replacing a significant portion of the Portland cement therein. The strain-hardening cementitious composite includes a mixture of cement, fly ash, sand, a polycarboxylic ether-based superplasticizer, and reinforcing polyvinyl alcohol fibers. The mixture is formed with a low content of Portland cement (6-12 wt %) and with ground scoria as the natural pozzolan (5-20%). The sand forms at least 22 wt % of the strain-hardening cementitious composite and is preferably in the form of sieved dune sand, having a silicon dioxide concentration of between approximately 80 and 90 wt %, and a feldspar concentration of between approximately 10 and 20 wt %. The dune sand is sieved such that the sand grains have a median diameter of less than or equal to approximately 300 μm, and preferably have a median diameter of approximately 200 μm.	USPTO	US 10301218
480.	Mutasim Ibrahim Khalil Mustafa Abdalla Mohamed Salih Ali Ahmed Mustafa Ali	10300100	28/05/2019	Extract of Vicia faba beans	The extract of Vicia faba beans is prepared by soaking beans in distilled water overnight and then boiling in a water bath to reduce the volume of aqueous extract, which is then homogenized and filtered. The filtrate is concentrated to a smaller volume, lyophilized, and powdered. The lyophilized powder is extracted with hexane to remove oils and lipids. The oil-free lyophilized powder is dissolved in ethanol solvent and extracted for eight hours under reflux, and filtered. The volume of ethanol is reduced by a rotary evaporator, and a first off-white precipitate (sample A-1) is collected, washed with ethanol, and dried at 80° C. Mass spectrometry shows a molecular weight of 200.16447 g mol−1, and an empirical formula of C9H16N2O3 is assigned. Intraperitoneal injection of mice with 50 mg/kg of A-1 twenty minutes prior to injection with strychnine protected the mice from strychnine-induced convulsions to the same extent as phenobarbitone (phenobarbital).	USPTO	US 10300100
481.	Ibrahim Ali Sumaily	10299670	28/05/2019	Self-retaining nasal septum retractor	The self-retaining nasal septum retractor includes two pivotally attached arms having handles on one end and speculum blades on the opposing end. The speculum blades are adjustably connected to the arms through pivoting joints. A user can adjust the vertical displacement and angular relation between the speculum blades and the arms to fit different patient septal/nasal structures. A self-retaining mechanism allows a user to lock the retractor in a retracted position, freeing up a hand of the user for other surgical tasks.	USPTO	US 10299670
482.	Durria Ahmed Abdulmaged Ahmed Ghada Abdulrahman Alnafisa Mohammad Manna Al-Qattan	10292709	21/05/2019	Device for sutureless repair of an injured nerve	The device for sutureless repair of an injured (severed) nerve includes a securement band connected by a transparent membrane to form a loop. The band includes two opposing approximation claws that extend into the region of the transparent membrane. An aperture in the transparent membrane is covered by an enclosure having an inlet nozzle and an outlet nozzle. An elongate member having a blade on its bottom end extends through an aperture in the top of the enclosure. The band is strapped around the patient's limb with the transparent membrane adhesively secured over the incision, the severed nerve ends are irrigated with saline and air is evacuated in the process. The blade incises the severed ends of the nerve to expose fresh nerve tissue under vacuum, and the severed ends are approximated. The device is left in place for the severed nerve ends to reunite.	USPTO	US 10292709
483.	Mohd Aftab Alam Fahad Ibrahim Al-Jenoobi Abdullah M. Al-Mohizea	10520347	21/12/2019	Measuring cup	The measuring cup includes numerous embodiments configured for a user to precisely determine the cup contents without need to lift the cup to one's eye level or to lower the eye level to the level of the cup contents. The various embodiments include folding cups; cups having transparent passages in the wall; cups having adjustably positionable bottoms; cups having level indicator rods in the cup interior extending upward from the cup bottom; cups having one or more filaments extending across the cup interior; cups having rigid level indicators spanning the cup interior; cups having adjustably positionable level indicator tabs therein; cups having buoyant level indicator tabs adjustably positionable in the cup interior; and cups having removable clip-on scales extending down along the interior of the cup wall, the scales having a plurality of attachment points for the removable attachment of a level indicator tab at a desired attachment point.	USPTO	US 10520347
484.	Sahar Asaad Alzain	10314672	11/06/2019	Cheek and tongue retractor	The retractor is a generally U-shaped device for protecting the cheek and tongue from instruments used during dental and prosthodontic procedures. The retractor has a planar base defined by two spaced arms, a pair of upright shields extending from the arms, and a posterior connector connecting the shields. The base is contoured to grip the tooth adjacent to the tooth to be treated, and thereby, secure the retractor within the patient's mouth.	USPTO	US 10314672

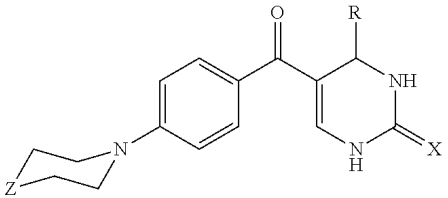
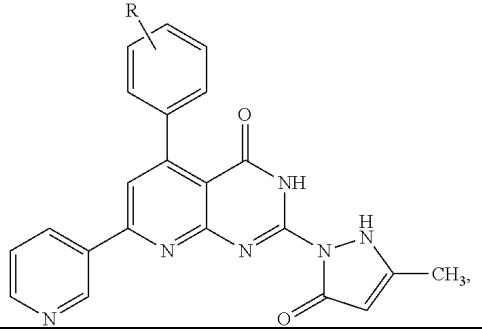
485.	Ali Abdullah Alshatwi Jegan Athinarayanan Periasamy Vaiyapuri Subbarayan	10451557	22/10/2019	pH sensing biofilm	The pH sensing biofilms include anthocyanin and a cellulose nanostructure or a cellulose nanocomposite. The cellulose nanostructure can include cellulose nanofibrils. The cellulose nanocomposite can include a composite of cellulose nanofibrils and pectin or a composite of cellulose nanofibrils and alginate. The presence of the anthocyanin in the biofilm allows the biofilm to change color in response to pH changes, thereby allowing the biofilm to be used as an active visual indicator of decay.	USPTO	US 10451557
486.	Abdulmonem Alsiddiky Raheef Mohamed Alatassi Abdullah Bin Dous	10265236	23/04/2019	Hip spica cast application stand	A hip spica cast application stand for holding a patient's legs in a desired position while a spica cast is applied. The stand includes an adjustable vertical post extending out of a base. Two extendable arms are pivotally attached to the top of the post. Each arm has a "U"-shaped leg holder at one end to receive and support a patient's thigh. During a hip spica casting procedure, the post length, arm length, and arm angles can be adjusted and locked in place to support and maintain the patient's legs at a desired position.	USPTO	US 10265236
487.	Ayoub Abdullah Alqadami Moonis Ali Khan Zeid Abdullah Alothman Ibrahim Hotan Alsohaimi Masoom Raza Siddiqui Ayman A. Ghfar	10245576	02/04/2019	Magnetic polymer nanocomposite for removal of divalent heavy metal ions from water	The magnetic polymer nanocomposite for removal of divalent heavy metal ions from water is magnetic nanocomposite having a core of magnetite (Fe_3O_4) in a shell of branched polyhydroxystyrene (BHPS), designated as Fe_3O_4@BHPS. The nanocomposite is synthesized by co-precipitation in alkali solution. Testing showed the nanocomposite reached 93% and 80% Pb(II) and Cd(II) adsorption, respectively, in 30 minutes, attaining equilibrium in 120 minutes. The maximum adsorption capacities of Pb(II) and Cd(II) at 298K were 186.2 and 125 mg/g, respectively. After adsorption, the nanocomposite with the heavy metal(s) adsorbed thereto was easily removed from aqueous solution by application of a magnetic field.	USPTO	US 10245576
488.	Saad M. Alshehri Tansir Ahamad	10322401	18/06/2019	Magnetic adsorbent for organic pollutant removal	The magnetic adsorbent for organic pollution removal is an adsorbent material, preferably in the form of microcapsules, for adsorbing organic pollutants, such as methylene blue, onto the microcapsules from contaminated water. Each of the magnetic adsorbent microcapsules is formed from magnetic iron oxide (Fe_3O_4) particles embedded in a nitrogen-enriched porous carbon matrix. To make the magnetic adsorbent microcapsules, urea and formaldehyde are mixed to form a pre-polymer solution. Magnetic Fe_3O_4 is mixed with an aqueous epoxy resin in hexane to form a mixture, which is then sonicated and added to the pre-polymer solution to form a polymeric solution. A surfactant, such as sodium lauryl sulfate, is added to the polymeric solution to form a suspension of magnetic microcapsules. The magnetic microcapsules are washed, filtered and dried before annealing in a tube furnace to form the adsorbent microcapsules, which are then washed and dried.	USPTO	US 10322401
489.	Zeyad Abdulwahid Ghaleb Haidar	10233095	19/03/2019	Solar desalination and power generating system	The solar desalination and power generating system is a hybrid system combining a Fresnel solar concentrator with a solar desalination still, and further including at least one concentrating photovoltaic cell for simultaneously generating electrical power. The solar still includes an absorber base, at least one sidewall, and a hollow cover. The hollow cover has an inlet port for receiving seawater, which passes through an interior of the hollow cover and exits through at least one outlet port into an open interior region of the solar still. At least one collection duct collects pure water condensate. A vacuum pump selectively lowers the pressure within the open interior region of the solar still. The solar still is suspended above a linear Fresnel reflector array such that the at least one concentrating photovoltaic cell, mounted to a lower surface of the absorber base, is positioned at a focal line thereof.	USPTO	US 10233095
490.	Tariq Abdulrahman Alshawi Asma'A Abdurrahman Al-Ekrish Saleh Abdullah Alshebeili	10213274	26/02/2019	Method of tracking and navigation for a dental instrument	The method of tracking and navigation for a dental instrument uses feature extraction, a feature space transformation and a fusion procedure to detect the location of a target, such as a marker placed on a patient's jaw, as well as detecting the location of a dental instrument with respect to the target for guiding a dental practitioner during a procedure. Detection is performed by identifying potential locations for the target and then refining the potential locations based on information from previous detection frames. Given an initial estimate of the target's three-dimensional location, the estimate is improved through iteratively updated information.	USPTO	US 10213274
491.	Wazie Mohammed Ahmed Abdulkawi Abdel Fattah Ahmed Sheta	10211498	19/02/2019	Reconfigurable resonators for chipless RFID applications	The reconfigurable resonators for chipless RFID applications provide spiral resonators for a multiple resonator passive RFID transponder tag. Each spiral resonator includes a U-shaped frame of conductive material and has a plurality (K−1) of parallel adjusting or shorting elements disposed between the legs of the U-shaped frame. Each resonator has one leg coupled to a transmission line adapted for connection between a receiving antenna and a transmitting	USPTO	US 10211498

					antenna (in some embodiments, a single antenna may be used for both receiving and transmitting), and one of the adjusting or shorting elements may be selectively connected to the opposing leg of the frame to configure the resonator to resonate at one of (K−1) different resonant frequencies (K frequencies if none of the elements are connected) by a short metal jumper strip to change the length of the spiral resonator.		
492.	Mohamed Zoubir Allaoua Bendjaballah	10206782	19/02/2019	Custom-fitting collar sleeve backing for commercial hip prostheses	The custom-fitting collar sleeve backing for commercial hip prostheses includes a base and a top portion, the top portion being connected to the base. The base has a bottom surface defining an aperture. The aperture of the bottom surface is dimensioned and configured for receiving the neck portion of a hip prosthesis. The bottom surface of the base may have a beaded topology. The top portion includes a shoulder portion defining an aperture. The aperture of the shoulder portion includes an outwardly extending annular flange and is configured for fitting the cylindrical shaft of the neck portion of the hip prosthesis.	USPTO	US 10206782
493.	Hatem Salama Mohamed Ali Reem Atta Alajmi Hany Mohamed Yehia Mohamed Fekry Serag El-Din Manal Fawzy Elkhadragy Manal Ahmed Gasmelseed Awad Dina Mahmoud Metwally Hasanin	10206417	19/02/2019	Guava seed (Psidium guajava) nanoparticles as antibacterial agent	The guava seed (Psidium guajava) nanoparticles as an antibacterial agent are prepared from guava seeds that have been washed, dried, and ground to powder of less than 1 mm diameter. The powder is reduced to nanoparticle size (less than 100 nm diameter) by adding the powder to a solution of concentrated hydrochloric acid (38% w/w) and stirring the mixture at 3000 rpm at room temperature. The resulting nanoparticles are filtered through a Millipore membrane filter and dried. Agar well diffusion studies showed significant antibacterial activity against various Gram positive and negative species commonly implicated in food contamination. Further testing showed the guava seed nanoparticles have significant antioxidant and radical scavenging content, suggesting that guava seed nanoparticles may serve as an antibacterial agent.	USPTO	US 10206417
494.	Ayman M. Atta Mahmood M. S. Abdullah Hamad A. Al-Lohedan Abdelrahman O. Ezzat Mohamed Hasan Wahby	10202548	12/02/2019	Modification of sand with superhydrophobic silica/wax nanoparticles	The modification of sand with superhydrophobic silica/wax nanoparticles may provide for water storage, applicable, for example, in desert environments. In particular, highly thermal stable superhydrophobic coats for sand are made of nanoparticles composed of superhydrophobic silica capped with paraffin wax. Superhydrophobic sand modified by such nanoparticles addresses issues of water storage in desert environments, capitalizing on sand resource utilization. Superhydrophobic sand, as modified, has excellent water repellency and great water-holding capacity. The superhydrophobic sand modified with superhydrophobic silica/wax nanoparticles can be applied for the desert water storage for agriculture and planting.	USPTO	US 10202548
495.	Rabab Abd El Moneim Khalil El Dib Shaza Mohamed Adel Al-Massarani Manal Ahmed Gasmelseed Awad Ali Ali El-Gamal	10202415	12/02/2019	Method of synthesizing of 3-oxolupenal nanoparticles	A method for synthesizing 3-oxolupenal nanoparticles including isolating 3-oxolupenal from a fraction of Nuxia oppositifolia plant, reducing the 3-oxolupenal to obtain a powder of 3-oxolupenal, dissolving the powder of 3-oxolupenal in methanol to form a first solution, adding the first solution to boiling water to form a second solution, sonicating the second solution, and freeze-drying after sonication to obtain the synthesized 3-oxolupenal nanoparticles. The synthesized 3-oxolupenal nanoparticles exhibited cytotoxic effects and antimicrobial effects.	USPTO	US 10202415
496.	Said S. Al-Jaroudi Ali ALHOSHANI Muhammad Altaf Anvarhusein Abdulkadir Isab	10301335	28/05/2019	Gold complex-containing cancer activity composition	Gold(I) complex with mixed ligands as an anticancer agent. The gold(I) ion is coordinated to a dithiocarbamate ligand and a phosphorus-containing ligand (e.g. phosphines). Also described are a pharmaceutical composition incorporating the gold(I) complex, a methods of synthesizing the gold(I) complex, and a method for treating cancer.	USPTO	US 10301335
497.	Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi Hany Mohamed Yehia Mohamed Mahmoud Hafez Ahmed Hatem Salama Mohamed Ali Mohamed Fekry Serag El-Din Zeinab Korany Mohamed Hassan	10188116	29/01/2019	Method of synthesizing Doum nanoparticles	Doum nanoparticles can be synthesized by drying Doum fruit, reducing the dried Doum fruit to a powder or flour, and subjecting the powder to acid hydrolysis or alcohol hydrolysis to provide Doum nanoparticles. The Doum nanoparticles can be used as a food preservative. When compared to bulk Doum particles, the Doum nanoparticles can provide substantially increased antibacterial activity.	USPTO	US 10188116
498.	Yousef Abdullah Almotlaq Mazen Abdullah Baabbad Hany Abdulrahman Alansary Essam Abdulaziz Al Ammar	10190802	29/01/2019	Solar heating apparatus	The solar heating apparatus includes at least one optical element and a drive assembly for selectively moving the at least one optical element along multiple axes of rotation, the drive assembly having an elevation shaft and an azimuth rotation shaft. The solar heating apparatus also includes a support frame positioned in communicating relation with the drive assembly, the support frame being configured for supporting the at least one optical element. The support frame includes a main shaft, at least one branch holder pivotally attached to an end of the main shaft,	USPTO	US 10190802

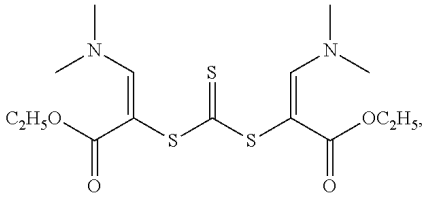
					the at least one branch holder being adapted for supporting the at least one optical element, and at least one belt drive for pivoting the at least one branch holder, the at least one belt drive being actuated by the elevation shaft.		
499.	Yousef Abdullah Almotlaq Mazen Abdullah Baabbad Hany Abdulrahman Alansary Essam Abdulaziz Al Ammar	10190801	29/01/2019	Solar heating apparatus	The solar heating apparatus includes driven and controllable reflectors for concentrating solar radiation on a solar tower or the like. Each of the reflectors provided in an array of reflectors is selectively driven to rotate about multiple axes of rotation. A plurality of groupings of optical reflectors, such as mirrors or the like, are mounted about a single, common longitudinally extending shaft, providing simultaneous rotation of the optical reflectors about a longitudinal axis. Through a two-axis bearing associated with each grouping of optical reflectors, the optical reflectors are also mounted on a laterally extending shaft associated with each individual reflector grouping. The laterally extending shafts are linked, each to the other, by a continuous belt or the like, providing selective simultaneous rotation of the optical reflectors about the lateral axis in addition to the simultaneous rotation about the longitudinal axis.	USPTO	US 10190801
500.	Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi Amnah Bader Alanazi Batool Ali Marzouq Alzhrani Dina Wafiq Awad Soliman	10184033	22/01/2019	Synthesis of silver-PMMA nanocomposite film	The synthesis of a silver-PMMA nanocomposite film includes mixing an aqueous extract of Trigonella foenum-graecum (also known as Helba and fenugreek) seeds with an aqueous solution of silver nitrate, thereby reducing the silver ions to silver metal nanoparticles. A solution of the silver nanoparticles is added to a solution of PMMA [poly (methyl methacrylate)] in N′N-dimethylformamide (DMF) with stirring at 90° C. A light brown solution of silver colloids develops, which is cast in a glass plate and the DMF is evaporated at room temperature, leaving a silver-PMMA nanocomposite film. Testing on water shows the silver-PMMA nanocomposite film prevents or inhibits growth of microbes, suggesting use as an antimicrobial or antibacterial agent, e.g., in water purification.	USPTO	US 10184033
501.	Zeyad Abdulwahid Ghaleb Haidar	10183233	22/01/2019	Solar desalination system	The solar desalination system is a hybrid system combining a Fresnel solar concentrator with a solar desalination still. The solar still includes an absorber base, at least one sidewall, and a hollow cover. The hollow cover has an inlet port for receiving seawater such that the seawater passes through an interior of the hollow cover and exits through at least one outlet port into an open interior region of the solar still. At least one collection duct is secured to an inner face of the at least one sidewall for collecting pure water condensate. A vacuum pump is in communication with the open interior region of the solar still through a vacuum port for selectively lowering the pressure within the open interior region of the solar still. The solar still is suspended above a linear Fresnel reflector array such that the absorber base is positioned at a focal point thereof.	USPTO	US 10183233
502.	Nagy Mahmoud Hassan Khalifa Mohamed A. Al-Omar	10239875	26/03/2019	Naphthyridinyl hydrazine derivatives as potent peripheral analgesic agents	The naphthyridinyl hydrazine derivatives as potent peripheral analgesic agents are (E)-2-(substituted benzylidene)-1-(2,7-dialkyl-1,8-naphthyridinyl) hydrazines that provide effective peripheral analgesic activity, as demonstrated using the mouse writhing test. The new target compounds include at least one compound that demonstrates higher potency in providing analgesic relief in mice (Protection (%)=81.44) compared to the reference drug acetyl salicylic acid (Protection (%)=78.47). These results demonstrated that the target compound exerts acute analgesic action, suggesting that it may represent an alternative in the development of new therapeutic strategies. Preferably, the (E)-2-(substituted benzylidene)-1-(2,7-dialkyl naphthyridinyl) hydrazine has the formula:  	USPTO	US 10239875

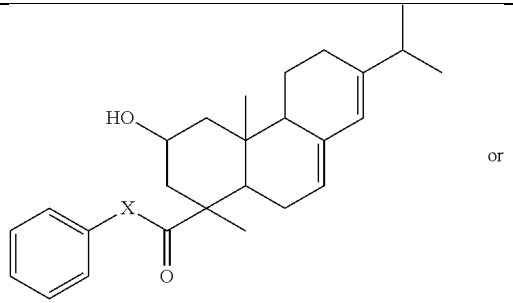
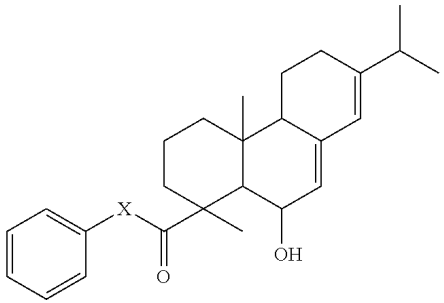
					wherein R_1 and R_2 are alkyl, R_3 is hydrogen, and R_4 is NO_2.		
503.	Ali Ali El-Gamal Adnan Jathlan Al-Rehaily Manal Ahmed Gasmelseed Awad Rabab Abd El Moneim Khalil El Dib Shaza Mohamed Adel Al-Massarani	10278999	07/05/2019	Synthesis of Nuxia oppositifolia nanoparticles	In one embodiment, synthesis of Nuxia oppositifolia nanoparticles includes providing a Nuxia oppositifolia powder; dissolving the powder in a first alcohol to provide a first alcohol extract; concentrating a filtrate from the first alcohol extract under reduced pressure to provide a dried alcohol extract; dissolving the dried alcohol extract in the first alcohol to provide a second alcohol extract; successively partitioning the second alcohol extract using n-hexane to provide an n-hexane extract; dissolving the n-hexane extract in a second alcohol and water to provide a first solution; and adding an acidic solution to the first solution to form a final solution including Nuxia oppositifolia nanoparticles.	USPTO	US 10278999
504.	Mohammad Azam Saud Ibrahim Al-Resayes Faiyaz Shakeel Agata Trzesowska-Kruszynska Rafal Kruszynski	10144748	04/12/2018	Anti-inflammatory zinc(II) complex	The anti-inflammatory zinc(II) complex, viz., crystalline bis(chloro)-(N,N′-(2,2-dimethylpropane-1,3-diyl)bis(1-(2-chlorophenyl)-methanimine))-zinc zinc(II) complex, may be used as an anti-inflammatory. The compound has the formula:  This complex is prepared by reaction of a Schiff base, namely, N,N′-bis(2-chlorobenzylidene)-2,2-dimethylpropane-1,3-diamine, with zinc chloride in alcohol to form a precipitate, which is removed by filtration, followed by slow evaporation of the filtrate to obtain the crystalline product. In vivo testing showed that the above zinc(II) complex exhibited good anti-inflammatory effect. It is thought that the present zinc-based anti-inflammatory avoids the gastrointestinal side effects of conventional NSAIDs due to the coordinated zinc complex.	USPTO	US 10144748
505.	Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi Wadha Khalaf Alenazi	10138135	27/11/2018	Synthesis of titanium dioxide nanoparticles using Origanum majorana herbal extracts	Synthesis of titanium dioxide nanoparticles using Origanum majorana (O. majorana) herbal extracts may be achieved by mixing Titanium (IV) isopropoxide (TTIP) with O. majorana extracts. The O. majorana herbal extracts may be extracts obtained using boiled water. The TTIP may be mixed with the O. majorana extract at a ratio of 2:1. The resulting paste may be heated and pounded into a powder. The powder may then be calcinated in a muffle furnace, producing O. majorana titanium dioxide nanoparticles. The O. majorana titanium dioxide nanoparticles may be efficient photocatalysts.	USPTO	US 10138135
506.	Amani Shafeek Awaad Shekhah Saud Almoqren Amal Ahmed Safhi Yara Mohamed Zain Reham Mostafa El-Meligy Fatmah Ali Al-Asamary	10137162	27/11/2018	Gastroprotective extracts of Sonchus oleraceus L.	The gastroprotective extracts of S. oleraceus L. are ethanol extracts (including the initial ethanol extract and serial extractions of the marc in ethanol), which are concentrated at low temperature to obtain a gummy residue that is dissolved in water. Lipoidal compounds are removed from aqueous extracts by filtration, and serial extracts proceeding from the aqueous extracts using chloroform to obtain low polarity phenolic compounds and n-butanol to obtain high polarity compounds and any remaining compounds. These extracts may be used to treat conditions of the stomach and colon including preventing peptic ulcers and treating ulcerative colitis.	USPTO	US 10137162
507.	Abd El-Galil E. Amr Mohamed A. Al-Omar Abdulrahman Abdulaziz Almehizia Ahmed Mohamed Naglah	10137138	27/11/2018	Sulfonylurea derivatives of oleanolic acid	The sulfonylurea derivatives of oleanolic acid include compounds replacing the 5-chloro-2-methoxybenzoic acid moiety found in glibenclamide with oleanolic acid. The resulting triterpenoidal sulfonylurea derivatives are compounds having the following formula:	USPTO	US 10137138

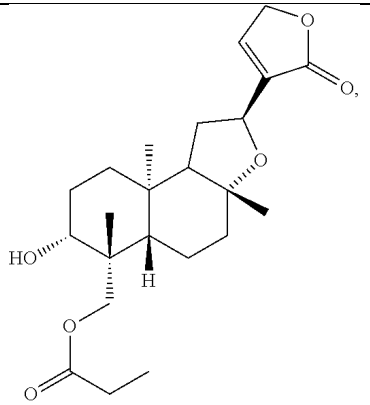
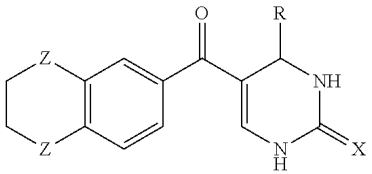
					 3a: R = H 3b: R = CH_3 or a pharmaceutically acceptable salt thereof. The derivatives are synthesized by condensation of 3-oxo-Olean-12-en-28-oic acid with 4-(2-aminoethyl)benzenesulfonamide to form an intermediate product, followed by reaction with cyclohexyl isocyanate or 4-methylcyclohexyl isocyanate to give 3a or 3b, respectively. The sulfonylurea derivative compounds were screened for their oral hypoglycemic activity in vivo using the alloxan-induced diabetic mouse model and proved more potent than either glibenclamide or oleanolic acid.		
508.	Abdullah Mohammed Ali Noman Abdulraman Abdullah Alshammaa Khaled Ebraheem Addoweesh Ayman Abdullah Abdulaziz Alabduljabbar Abdulrahman Ibrahim Alolah	10141865	27/11/2018	Hybrid CHB-TVSI multilevel voltage source inverter	The hybrid CHB-TVSI multilevel voltage source inverter is a polyphase grid-connected multilevel inverter system has an upper part and lower part that provides output power in three phases. The upper part uses cascaded H-bridge cells having pairs of switched intermediate outputs. DC power sources are connected in series or parallel to track a desired input voltage to feed respective H-bridges, providing an optimum power point tracking (MPPT) of the DC power sources. The lower part, also connected to DC power sources, uses a triple voltage source multilevel inverter that includes three cascaded units, each configured as a three-leg, two-level inverter. The lower part is connected to the upper part, the upper part providing a corresponding polyphase output.	USPTO	US 10141865
509.	Ayman M. Atta Mahmood M. S. Abdullah Hamad A. Al-Lohedan	10131556	20/11/2018	Hydrophobic nanoparticle compositions for crude oil collection	Hydrophobic nanoparticle compositions include silica nanoparticles capped with asphaltene succinimide alkoxy silane (ASAS). The nanoparticles can have a particle size ranging from about 20 nm to about 10000 μm. The nanoparticle compositions can be used as a coating for raw sand to provide a super-hydrophobic sand. The nanoparticle compositions can be used as a coating for a polyurethane (PU) sponge to provide a super-hydrophobic sponge. The super-hydrophobic sand and/or super-hydrophobic sponge can be used to collect crude oil deposited in aquatic environments as a result of petroleum crude oil spills.	USPTO	US 10131556
510.	Abdulrahman Abdullah Ali Alshammaa Abdullah Mohammed Ali Noman Khaled Ebraheem Addoweesh Ayman Abdullah Abdulaziz Alabduljabbar Abdulrahman Ibrahim Alolah	10116229	30/10/2018	Multilevel cascade hexagonal voltage source converter with isolated DC sources	The multilevel cascade hexagonal voltage source converter with isolated DC sources has a plurality of polyphase stages, each stage having AC inputs corresponding to a number of phases, and a numerically identical plurality of n outputs, cascaded by connection of the outputs of one stage to the inputs of a next stage. Each stage has plural DC-to-AC converters corresponding to the number of phases, and connected to one of the AC inputs, each having a connection for receiving DC power, and amplifying its AC outputs with the received DC power. The DC-to-AC converters are connected by split inductors, with each split inductor providing an output at a center tap terminal. The inductor half-segments are cross-connected with inductive cross-coupling links inductively connected to the inductor half-segments at opposite sides of the polyphase ring connection. The middle terminals of the n split inductors provide n AC outputs for its respective polyphase stage.	USPTO	US 10116229
511.	Manal Ahmed Gasmelseed Awad Awatif Ahmed HENDI Khalid Mustafa Osman Ortashi Dina Wafiq Awad Soliman	10111441	30/10/2018	Synthesis of silver-PMMA nanocomposite film using herbal extract	The synthesis of a silver-PMMA nanocomposite film using herbal extract includes mixing an aqueous extract of Aristolochia bracteolate buds with an aqueous solution of silver nitrate, thereby reducing the silver ions to silver metal nanoparticles. A solution of the silver nanoparticles is added to a solution of PMMA [poly (methyl methacrylate)] in N′N-dimethylformamide (DMF) with stirring at 80° C. A brown solution of silver colloids develops, which is cast in a glass plate and the DMF is evaporated at room temperature, leaving a silver-PMMA nanocomposite film. Testing on water shows the silver-PMMA nanocomposite film prevents or inhibits growth of microbes, suggesting use as an antimicrobial or antibacterial agent, e.g., in	USPTO	US 10111441

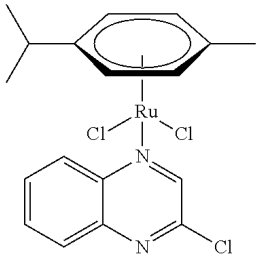
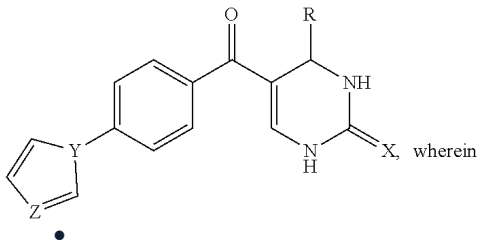
					water purification. In addition, testing by disc diffusion against E. coli and Bacillus cereus showed zones of inhibition, also suggesting use as an antimicrobial or antibacterial agent.		
512.	Devanesan Sandhanasamy Mohamad Saleh Alsalhi Periyasami Govindasami Ali Kanakhir Aldalbahi	10111918	30/10/2018	Method of preparing biologically active derivatives from Calotropis gigantea flowers	A method of preparing biologically active derivatives from Calotropis gigantea flowers includes obtaining fresh Calotropis gigantea flowers, drying the flesh flowers, soaking the dried flowers in a natural oil, e.g., almond oil, and burning the oil-soaked flowers to provide flower ash, the flower ash including the biologically active derivatives. The flower ash can be toxin free.	USPTO	US 10111918
513.	Mashooq Ahmad Bhat	10111873	30/10/2018	Dihydropyrimidinone derivatives	A dihydropyrimidinone derivative having a chemical structure according to Formula 1: (Formula 1)  wherein ● ○ Z is selected from N and O; ○ X is selected from O and S; and ○ R represents aryl, substituted aryl, heteroaryl, or substituted heteroaryl, wherein the substituted aryl or substituted heteroaryl have one or more substituents selected from halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, nitro, hydroxyl, alkylthio, alkylamino, heteroaryl, aryloxy, haloaryloxy, arylthio, arylamino, and pharmaceutically acceptable salts thereof.	USPTO	US 10111873
514.	Amani Shafeek Awaad Menatallah Mohamed Allah Lara Ayman El-Sawaf Reham Mostafa El-Meligy Fatmah Ali Al-Asamary	10098924	16/10/2018	Anticancer extracts of Alpinia officinarum hance	The anticancer extracts of Alpinia officinarum Hance are produced by percolation extraction of dried Alpinia officinarum Hance rhizomes in 95% ethanol. The extracts may then be concentrated, suspended in water, filtered, and lyophilized. The resulting anticancer extracts may be used to kill a variety of cancer cells, including lung cancer, colorectal cancer, colon cancer, cervical cancer, and prostate cancer.	USPTO	US 10098924
515.	Nagy Mahmoud Hassan Khalifa Mohamed A. Al-Omar Hamad M. Alkahtani Ahmed H. Bakheit	10100054	16/10/2018	Pyrido[2,3-d]pyrimidines as anticancer agents	The pyrido[2,3-d]pyrimidine derivatives as anticancer agents include 5-(substituted-phenyl)-2-(3-methyl-5-oxo-2H-pyrazol-1(5H)-yl)-7-(pyridin-3-yl)pyrido[2,3-d]pyrimidin-4(3H)-one derivatives having the formula: 	USPTO	US 10100054

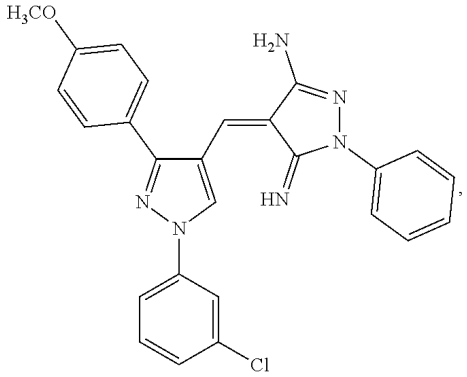
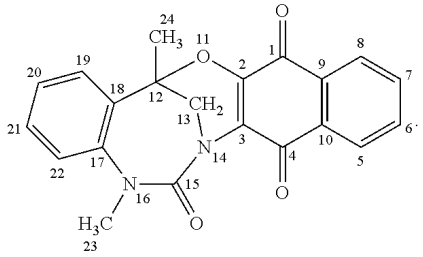
					where R is hydrogen; 2-halo, 3-halo, or 4-halo (Cl, Br, or F); 2-methoxy, 3-methoxy, or 4-methoxy (OCH_3); 2-nitro, 3-nitro, or 4-nitro (NO_2); 4-isopropyl, 4-methyl, or 4-cyano (CN); 2-hydroxy or 3-hydroxy (OH), 3-chloro and 5-chloro; 2-methoxy and 5-methoxy, 3-methoxy and 5-methoxy, or 3-methoxy and 4-methoxy; 3,4,5-trimethoxy; or 2-hydroxy and 4-hydroxy; or a pharmaceutically acceptable salt thereof. The derivatives may be useful in treating various cancers, including hepatic, colon, prostate, breast, and lung cancer.		
516.	Lama Ahmed Al-Kahlan	10096267	09/10/2018	Dental education model	The dental education model is a realistic model of a human jaw with removable teeth, including a base plate and a substantially U-shaped member simulating a human gingiva. The substantially U-shaped member has upper and lower surfaces, the lower surface being mounted on the base plate. The upper surface has a plurality of recesses defined therein. A plurality of first magnetic connectors are embedded in the substantially U-shaped member adjacent to closed ends of the plurality of recesses. A plurality of simulated teeth have coronal and root portions. The root portions of the plurality of teeth are removably received within the plurality of recesses formed in the substantially U-shaped member. A plurality of second magnetic connectors are embedded in the root portions of the plurality of the teeth, such that the first and second magnetic connectors are releasably magnetically attachable to one another.	USPTO	US 10096267
517.	Abdullah Saeed M. Alayad	10092372	09/10/2018	Elastically tensioned dental matrix wedge	The elastically tensioned dental matrix wedge is a dental matrix wedge for use in dental restoration procedures. The elastically tensioned dental matrix wedge includes a hollow elongated body having first and second longitudinally opposed ends. The first end is at least partially open and the second end is closed. An elongated tube is mounted within the hollow elongated body and extends longitudinally therein. A spiral torsion spring is secured to, and wraps about, the elongated tube. A clip is provided for releasably holding the spiral torsion spring in a compressed state. Release of the clip allows the spiral torsion spring to expand and exert an elastic tension force on an inner surface of the hollow elongated body.	USPTO	US 10092372
518.	Ali Ali Hassan Elgamal Manal Ahmed Gasmelseed Awad Rabab El Dib Shaza Mohamed Adel Al-Massarani Omer Ahmed Basudan	10086027	02/10/2018	Green synthesis of katononic acid nanosheets	The synthesis of katononic acid nanosheets is a method of extraction of katononic acid from the n-hexane fraction of Nuxia oppositifolia. The katononic acid isolated from N. oppositifolia may be suspended in methanol and added dropwise to boiling water, sonicated, stirred, and freeze dried to form katononic acid nanosheets. These katononic acid nanosheets may be used to kill cancer cells or microorganisms.	USPTO	US 10086027
519.	Jothi Ramalingam Siva Chidambaram Judith Vijaya Hamad Al-Lohedan	10090117	02/10/2018	Method of making a porous nano-carbon electrode from biomass	The method of making a porous carbon electrode is a chemical activation-based method of making a porous nanocarbon electrode for supercapacitors and the like. Recycled jackfruit (Artocarpus heterophyllus) peel waste is used as a precursor carbon source for producing the porous nanocarbon. A volume of jackfruit (Artocarpus heterophyllus) peel is collected, dried and then heated under vacuum to produce precursor carbon. The precursor carbon is mixed with phosphoric acid (H3PO4) to form a mixture, which is then stirred, dried and heated to yield porous nanocarbon. The porous nanocarbon is mixed with a binder, such as poly(vinylidenedifluoride), acetylene black, and an organic solvent, such as n-methyl pyrrolidinone, to form a paste. This paste is then coated on a strip of nickel foil to form the porous carbon electrode.	USPTO	US 10090117
520.	Anvarhusein A. Isab Muhammad Altaf Ali ALHOSHANI Ali Osman ALTOUM Mohammed Yagoub JOMAA	10358456	23/07/2019	Platinum(II) complexes with selone ligands and method of use	Platinum(II) complexes with various selones (L) having the general formula PtL2Cl2 are disclosed. The platinum(II) complexes of the invention inhibit growth of cancer cells in vitro and are useful for treatment of proliferative disorders such as cancers and/or tumors.	USPTO	US 10358456
521.	Reem Siraj Alsulaimani Sara Nasser Aldosary	10080626	25/09/2018	Integral restoration matrix system	The integral restoration matrix system includes an arcuate frame having opposed upper and lower arcuate members and first and second opposed side members. The arcuate frame defines an open interior region. A matrix sheet is secured to the arcuate frame and extends across, and covers, the open interior region defined by the arcuate frame. First and second upper arcuate retaining arms are secured to, and extend from, respective upper ends of the first and second opposed side members. First and second lower arcuate retaining arms are secured to, and extend from, respective lower ends of the first and second opposed side members. A hemostatic mesh is secured to the lower arcuate member of the arcuate frame.	USPTO	US 10080626

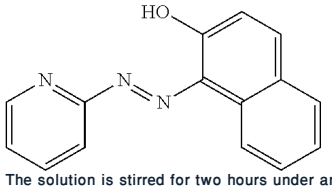
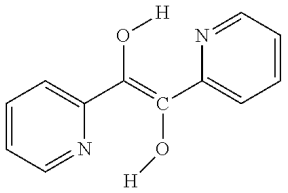
522.	Sahar Asaad Alzain	10070946	11/09/2018	Device for recording vertical and centric occlusion positions of edentulous jaws	The device for recording vertical and centric occlusion positions of edentulous jaws is a tool which allows a dental practitioner to maintain maxillary and mandibular record bases (and their respective wax rims) in their respective vertical and centric occlusion positions during transfer of the maxillary and mandibular record bases to a conventional dental articulator. A pair of telescopically adjustable rods are provided for measuring the vertical occlusion position of the patient's edentulous jaws. Each of the telescopically adjustable rods has a selectively adjustable and lockable height, with the opposed ends thereof being releasably secured to the maxillary and mandibular record bases, respectively. The telescopically adjustable rods are also horizontally adjustable with respect to the maxillary and mandibular record bases, allowing the centric occlusion position of the patient's edentulous jaws to be recorded.	USPTO	US 10070946
523.	Sahar Faisal Al Barakati Bader Khalid Al Balkhi	10070942	11/09/2018	Orthodontic cinch back instrument	The orthodontic cinch back instrument is an orthodontic tool used for cinching back an end of an orthodontic wire. The orthodontic cinch back instrument includes an elongated handle portion which extends along a longitudinal axis and has opposed first and second ends. First and second shank portions are respectively secured to, and extend longitudinally from, the first and second ends of the elongated handle portion. First and second arcuate head supports are respectively secured to, and extend from, the first and second shank portions. The first and second arcuate head supports are positioned and contoured antisymmetrically with respect to one another about a lateral axis. First and second heads are respectively secured to the first and second arcuate head supports and are positioned and angled antisymmetrically with respect to one another about the lateral axis. Each of the first and second heads has a slot formed therein.	USPTO	US 10070942
524.	Yahia Nasser Mabkhot Jamal Mohammed Ali Khaled Mujeeb Abdullah Sultan Fahd Ali Nasr Mohammed Naiyf Sultan Helial Alaloi Alharbi Salim Showiman Al-Showiman Hazem Ahmed Ghabbour	10071960	11/09/2018	Enaminone-grafted trithiocarbonate with anticancer and antimicrobial activity	The present subject matter is directed to an enaminone-grafted trithiocarbonate compound having the structure:  and the anticancer and antimicrobial activities exhibited by the compound.	USPTO	US 10071960
525.	Abd El-Galil E. Amr Mohamed A. Al-Omar Abdulrahman A. Almehizia	10064837	04/09/2018	Abietic acid derivatives as anti-tumor agents	The abietic acid derivatives as anti-tumor agents are derivatives of abietic acid in which the hydroxyl entity (–OH) of the carboxyl entity is replaced by an electronegative substituent, which may be C6H5-O–, C6H5-S–, or C6H5-NH–, and a hydrogen atom on one of the rings is replaced by a hydroxyl (–OH) substituents, the derivatives having the formula:	USPTO	US 10064837

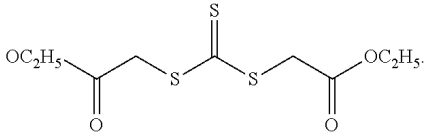
					 or  wherein X is O, S, or NH. The derivatives are formed by formation of an intermediate lactone from abietic acid, followed by reaction of the lactone with phenol, thiophenol, or aniline. All of the derivatives exhibited potent 5α-reductase inhibitor activity, both in vitro and in vivo, and anti-tumor activity with regard to two prostate cancer cell lines–LNCaP and PC-3. The intermediate lactones are also derivatives of abietic acid that exhibit anti-tumor activity.		
526.	Jegan Athinarayanan Ali A. Alshatwi Vaiyapuri Subbarayan Periasamy	10066028	04/09/2018	Method of fabricating biocompatible cellulose nanofibrils	The method of fabricating biocompatible cellulose nanofibrils produces cellulose nanofibrils from used agro-waste Borassus flabellifer leaf stalks. The method uses a three-step process, including alkali treatment, bleaching, and acid hydrolysis to produce cellulose nanofibrils, which may be converted to pellets for storage. The pellets may be converted to a transparent film for cell attachment by dispersion in water and heating in a hot air oven. Testing shows that cellulose nanofibrils made by the method easily attract human mesenchymal stem cells and will be applicable for skin tissue engineering applications.	USPTO	US 10066028
527.	Abdulrahman M. Al-Ahmari Abdullah Yahia M. Alfaify Mohamed Hamid Hamid	10065242	04/09/2018	Adjustable build envelope for powder bed fusion machines	The adjustable build envelope for powder bed fusion machines includes a frame in the build chamber having four movable sides, a base and two motors with lead screws. The motors are placed at an angle of 45° with respect to the side of the frame, so that as the motors rotate the lead screws, the two sides of the frame slide in opposite directions. The sides move inward with the help of guide pins and dovetail grooves, thereby reducing the build envelope volume. For large builds, both motors rotate in the reverse direction to increase the build envelope volume. By changing the build envelope volume according to the given build size, powder waste is reduced.	USPTO	US 10065242
528.	Naif Abdullah Al-Dhabi Savarimuthu Ignacimuthu P. Pandikumar Erenius Toppo Sylvester Darvin	10064841	04/09/2018	Isoandrographolide-19-propionate for treatment of non-alcoholic fatty liver disease (NAFLD)	Isoandrographolide-19-propionate for treatment of non-alcoholic fatty liver disease (NALFD) relates to the compound isoandrographolide-19-propionate (IAN-19P), having the structural formula:	USPTO	US 10064841

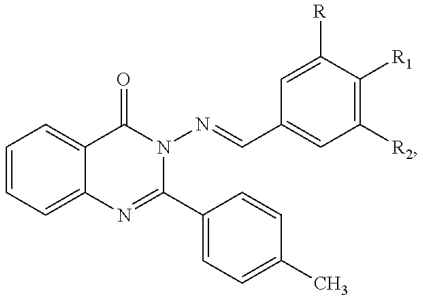
					 and pharmaceutically acceptable salts thereof. The compound is synthesized by reaction of isoandrographolide with anhydrous propionic acid in the presence of N,N′-dicyclohexylcarbodiimide and 4-dimethylaminopyridine. In vitro testing shows that isoandrographolide-19-propionate has lower toxicity than andrographolide, but has significantly high activity at a concentration of 50 μM. IAN-19P produced normal triglyceride levels and significantly lowered lipoperoxide formation in palmitate-oleate induced steatotic HepG2 cells, and also lowered ALT leakage from the treated cells.		
529.	Mohamad Saleh Alsalhi Sandhanasamy Devanesan	10059601	28/08/2018	Synthesis of silver nanoparticles from abelmoschus esculentus extract	The synthesis of silver nanoparticles from plant extract includes providing a solution including silver nitrate; providing an aqueous extract of the Abelmoschus esculentus (Okra) plant or plant part; mixing the silver nitrate solution and the extract solution to form an aqueous mixture; and resting the aqueous mixture for a period of time to form silver nanoparticles (AgNPs). The resulting silver nanoparticles demonstrate antimicrobial activity against both gram-positive and gram-negative pathogens.	USPTO	US 10059601
530.	Mutasim Ibrahim Khalil Ibrahim Mutasim Ibrahim Khalil	10422033	24/09/2019	Green method for coating a substrate with silver nanoparticles	The method for coating a substrate with silver nanoparticles includes reducing a silver nitrate solution with an ethanol extract of the traditional Indian medicinal plant (Curcuma Longa L.), a naturally abundant antioxidant, to form a final solution, and contacting the final solution with the substrate to provide the silver nanoparticle coating. Formation of the silver nanoparticle coating on the substrate can be determined when a mirror in the final solution is observed. The thickness of the coating layer can be less than 125 nm. The coated substrates can be highly conductive.	USPTO	US 10422033
531.	Mashooq Ahmad Bhat Mohamed Abdulrahman Al-Omar	10052326	21/08/2018	Antihepatotoxic agents	Antihepatotoxic agents include dihydropyrimidinone derivatives with 1,4-benzodioxane. The antihepatotoxic agents are compounds having the structural formula represented by Formula 1: (Formula 1)  wherein each Z independently represents O, N or S; X represents O or S; R represents aryl, substituted aryl, heteroaryl, or substituted heteroaryl; and pharmaceutically acceptable salts of these compounds.	USPTO	US 10052326

532.	Sartaj Tabassum Hamad A. Al-Lohedan Hazem Ghabour Mohd Sajid Ali Rais Ahmad Khan Fohad Mabood Husain	10053480	21/08/2018	Anti-quorum and DNA cleaving agent	The anti-quorum and DNA cleaving agent is directed to a ruthenium complex formulated from dichloro-(η^6-p-cymene) ruthenium(II) dimer and 2-chloroquinoxaline, the complex having the formula:  The reaction cleaves the dimer, leaving a half-sandwich ruthenium complex with an η^6 coordination bond to the arene ligand and an Ru–N bond attaching the chloroquinoxaline to the ruthenium complex. The agent has an anti-quorum sensing effect on bacteria, inhibiting the formation of biofilm and inhibiting bacterial virulence. The agent also binds to DNA and may cleave the DNA, e.g., at the N7 base pair of guanine, due to a hydrolytic mechanism, suggesting potential use as an anticancer or antitumor agent.	USPTO	US 10053480
533.	Ehab Salaheldin Awad Mohamed	10048441	14/08/2018	Variable optical splitter system	The variable optical splitter system includes a V-shaped optical splitter for use in planar lightwave circuits (PLCs), photonic integrated circuits (PICs), etc. The V-shaped optical splitter has first and second optically transmissive branches sharing a common optically transmissive base, where the first and second optically transmissive branches each define an optical waveguide. The first and second optically transmissive branches are symmetrically angled about a central longitudinal axis. A light source directs a light beam to a laterally extending input surface of the optically transmissive base. The light beam travels parallel to the central longitudinal axis. The optical power splitting ratio is directly proportional to the input beam's displacement from the central longitudinal axis, permitting selective tuning of the ratio during design of the splitter.	USPTO	US 10048441
534.	Mashooq Ahmad Bhat Mohamed A. Al-Omar	10047071	14/08/2018	Dihydropyrimidinone derivatives	A dihydropyrimidinone derivative includes a compound having a chemical structure according to Formula 1: Formula 1  wherein ○ Z is selected from O, S and N; ○ Y is N ○ X is selected from O and S; and ○ R represents aryl, substituted aryl, heteroaryl, or substituted heteroaryl, wherein the substituted aryl or substituted heteroaryl have one or more substituents selected from the group consisting of	USPTO	US 10047071

					halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, nitro, hydroxyl, alkylthio, alkylamino, heteroaryl, aryloxy, haloaryloxy, arylthio, arylamino, and pharmaceutically acceptable salts thereof.		
535.	Nagy Mahmoud Hassan Khalifa Mohamed A. Al-Omar	10039749	07/08/2018	Substituted pyrazole derivatives	A substituted pyrazole derivative includes a compound of the formula:  or a pharmaceutically acceptable salt thereof.	USPTO	US 10039749
536.	Naif Abdullah Al-Dhabi Savarimuthu Ignacimuthu Chandrasekar Balachandran Veeramuthu Duraipandiyan	10036048	31/07/2018	Process for obtaining a naphthoquinone derivative from Streptomyces sp	The process for obtaining a naphthoquinone derivative from *Streptomyces* sp. includes providing a seed inoculum of a strain of *Streptomyces* sp.; culturing the *Streptomyces* sp. in a culture nutrient medium; centrifuging the culture nutrient medium to provide a supernatant and a biomass precipitate; admixing a water immiscible solvent to the supernatant to produce a water immiscible solvent extract layer and a water layer; and isolating the antimicrobial and cytotoxic compound from the water immiscible solvent extract layer by performing silica gel chromatography. The naphthoquinone derivative has the following chemical structure: 	USPTO	US 10036048
537.	Khalid Abdullah Ibrahim Alruhaimi	10028807	24/07/2018	Dental appliance-holding bracket assembly	The dental appliance-holding bracket assembly includes a plurality of housings attached to a corresponding tooth band, each of the tooth bands being cemented to the crown of an adjoining tooth. Each housing defines a socket of a ball-and-socket joint. The assembly further includes a plurality of bracket arms, each bracket arm having a shank including a proximal end and an opposing distal end. The proximal end of the shank has a ball pivotally captured within the housing socket to form a ball-and-socket joint, while the opposing distal end of the shank includes a ring adapted for supporting a dental appliance.	USPTO	US 10028807
538.	Manal Ahmed Gasmelseed Awad Rabab Abd El Moneim Khalil El Dib Shaza Mohamed Adel Al-Massarani Ali Ali El-Gamal	10028988	24/07/2018	Synthesis of Nuxia oppositifolia nanoparticles	Synthesis of Nuxia oppositifolia nanoparticles includes providing an extract of Nuxia oppositifolia, dissolving the extract in alcohol to provide a mixture, adding water to the mixture to provide an aqueous solution, adding an acidic solution to the aqueous solution to form a final solution including Nuxia oppositifolia nanoparticles; and centrifuging the final solution to isolate the Nuxia oppositifolia nanoparticles.	USPTO	US 10028988

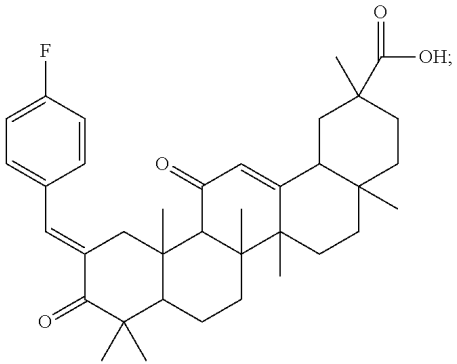
539.	Yousef Abdullah Almotlaq Mazen Abdullah Baabbad Hany Abdulrahman Alansary Essam Abdulaziz Al Ammar	10022646	17/07/2018	Solar cooling and water salination system	The solar cooling and water desalination system is a roof-mounted system having a refrigeration unit driven by electricity produced by solar panels to chill water, which is stored in a first tank and used to cool living spaces. Seawater is preheated in a first heat exchanger by waste heat from operation of the refrigeration unit, and heated further in a second heat exchanger by hot distilled water. A field of solar collectors heats oil, which is stored in a hot oil tank and then powers a first boiler to produce high pressure and temperature steam for a steam ejector vacuum system connected to a desalination water boiler that desalinates the seawater, which is condensed by a condenser and stored in a distilled water tank, where it is stored at about 80° C.	USPTO	US 10022646
540.	Abdullah M. Al-Enizi Tansir Ahamad Saad M. Alshehri Mu Naushad	10026970	17/07/2018	Oxygen reduction reaction electrocatalyst	The oxygen reduction reaction electrocatalyst is a Pt/N/C electrocatalyst that provides an efficient ORR catalyst suitable for use in polymer electrolyte membrane (PEM) fuel cells, for example. The oxygen reduction reaction electrocatalyst is in the form of platinum nanoparticles embedded in a nitrogen-enriched mesoporous carbon matrix, particularly a nitrogen-enriched graphite matrix. The nitrogen-enriched graphite matrix has an average surface area of 240.4 m2/g, and the platinum nanoparticles each have an average diameter between 10 nm and 12 nm.	USPTO	US 10026970
541.	Nabil Ahmed Al-Zaqri Ismail Khalil Warad Ali Mohammed Alsalme Mujeeb Abdullah Sultan	10016752	10/07/2018	Method of making palladium nanoparticles	The method of making palladium nanoparticles is a microwave thermolysis-based method of making palladium nanoparticles from a complex of palladium(II) acetate $Pd(O_2CCH_3)_2$ (or $Pd(OAc)_2$) and a ligand. The complex of palladium(II) acetate and the ligand is melted in oleic acid and dichloromethane to form a solution. The ligand is 1-(pyridin-2-yldiazenyl)naphthalen-2-ol ($C_{15}H_{11}N_3O$), which has the structure:  The solution is stirred for two hours under an inert argon atmosphere, and then irradiated with microwave radiation to produce palladium nanoparticles.	USPTO	US 10016752
542.	M. Adel Zakri Abdullah Abdulaziz Al-Doss Mohammed Ali Al-Saleh Ahmed Abd Elrahim Ali Basem Sayed Abbas Ahmed	10017560	10/07/2018	Nanobody against begomoviruses	A nanobody directed against begomoviruses is capable of selectively binding to ToLCSDV viral particles, TYLCV particles, and/or other begomoviruses. The nanobody includes an amino acid sequence of SEQ ID NO: 2.	USPTO	US 10017560
543.	Nabil Ahmed Qassim Al-Zeqri Ismail Khalil Warad Firas Fandi Awwadi Ali Mohammed Alsalme Anas Khaled Abed Alali Abdelkader Zarrouk	10017474	10/07/2018	Method of synthesizing (E)-1,2-di(pyridin-2-yl) ethene-1,2-diol	The method of synthesizing (E)-1,2-di(pyridine-2-yl)ethene-1,2-diol involves dimerization of 2-pyridinecarboxaldehyde (also referred to herein as "picolinaldehyde"). The synthesis of the desired ethene-1,2-diol is achieved using a Cu(II) catalyst to dimerize picolinaldehyde under mild conditions. Preferably, the Cu(II) catalyst is a Cu(II)/neocuproine (2,9-dimethyl-1,10-phenanthroline) complex, or other Cu(II)/phen complex. The reaction in this embodiment may occur at room atmosphere and in ambient light conditions using a water/ROH solvent. The exemplary ethene-1,2-diol product, (E)-1,2-di(pyridin-2-yl)ethene-1,2-diol has the following structural formula: 	USPTO	US 10017474
544.	Usman Ali Rana Arfat Anis Ayman Nafady	10010866	03/07/2018	Nitrogen and phosphorus co-doped crystalline carbon materials	The nitrogen and phosphorus co-doped crystalline carbon materials are prepared by a template-free method that includes pyrolizing a precursor mixture including a carbon source, a nitrogen source, and a phosphorus source. The method involves mixing known amounts of the precursor	USPTO	US 10010866

	Saeed M. Al-Zahrani				components, dissolving the precursor mixture in deionized water, distilling solvent from the aqueous mixture, and vacuum drying the residue to a dry solid mixture. The mixture is then carbonized by pyrolysis at 900° C. in an argon atmosphere to obtain a nitrogen and phosphorus co-doped crystalline carbon material. The principles of the method are illustrated by a precursor mixture of sucrose, urea, and ammonium dihydrogen phosphate ($NH_4H_2PO_4$). The amount of ammonium salt in the precursor mixture plays a key role in controlling the crystallinity, morphology, and composition of the N/P co-doped crystalline carbon material.		
545.	Mohammad Ibrahim Mohammad Alwabel Jamal Tagelsir Elsheikh Adel Rabie Usman	10011536	03/07/2018	Encapsulated sustained release urea fertilizer	The encapsulated sustained release urea fertilizer is a urea fertilizer and a stabilizer encapsulated in fumed silica. The stabilizer may be a gellan gum hydrogel or biochar. The encapsulated sustained release urea fertilizer allows for both immediate and sustained nitrogen release over time and displays reduced nitrogen volatilization and increased water holding capacity.	USPTO	US 10011536
546.	Rajabathar Jothi Ramalingam Hamad Abdullah Al-Lohedan	10014124	03/07/2018	Composite electrode material for supercapacitors	The composite electrode material for supercapacitors includes mesoporous manganese dioxide (MnO2), graphene oxide, and nanoparticles of molybdenum disulfide (MoS_2). The composite material is prepared by preparing mesoporous manganese dioxide, preferably by surfactant-assisted precipitation, then mixing graphene oxide with the mesoporous MnO_2 is ethanol and ultrasonicating, and finally nanoparticles of MoS_2 are mixed with the suspension of graphene oxide and mesoporous MnO_2 to form the composite electrode material. The capacitance of the material may be varied by changing the concentration of MoS_2 nanoparticles. Samples of the composite electrode material exhibited good supercapacitance values, such as 527 and 1160 F/g.	USPTO	US 10014124
547.	Yahia Nasser Mabkhot Gabr Jamal Mohammed Ali Khaled Mujeeb Abdullah Saeed Sultan Salim S. Al-Showiman Naiyf Sultan Helial Alaloi Alharbi Hazem Ahmed Ghabbour	9988348	05/06/2018	Synthesis and antimicrobial use of a trithiocarbonate derivative	A method for preparing a trithiocarbonate derivative compound includes reacting ethyl cyanoacetate, carbon disulfide (CS_2) and ethyl chloroacetate in the presence of potassium carbonate (K_2CO_3) in an organic solvent to produce 2,2′-(thiocarbonylbis(sulfanediyl))diacetate compound, represented by the structural formula: 	USPTO	US 9988348
548.	Mu Naushad Ayoub Abdullah Alqadami Tansir Ahamad Zeid Abdullah Alothman Saad M. Alshehri	9987617	05/06/2018	Carboxylic functionalized magnetic nanocomposite	Carboxylic functionalized magnetic nanocomposites can include a magnetic compound, such as Fe_3O_4, that is encapsulated by a plurality of amino organosilane groups. The organosilane groups can include 3-[2-(2-Aminoethylamino)ethylamino] propyl-trimethoxysilane (TAS). At least some of the organosilane groups can have amino and carboxylic acid substituents. The organic pollutants can include malachite green dye. The carboxylic functionalized magnetic nanocomposites can adsorb dye from solution, such as wastewater. The carboxylic functionalized magnetic nanocomposites can be separated from the solution using an external magnetic material.	USPTO	US 9987617
549.	Hamad Zaid Alkhathlan Merajuddin Khan Mahmood M. S. Abdullah Abdullah Mohammed Al-Mayouf	9988726	05/06/2018	Method of protecting metal from corrosion using plant derived anti-corrosion agent	Extracts of Matricaria aurea flowers are shown to exhibit anticorrosive activity when used with mild steel in acidic media. A process is shown for obtaining such anticorrosive extracts from the flowers of M. aurea. In particular, certain methanolic, aqueous methanolic and water extracts, as well as ethyl acetate and n-butanol fractions, of M. aurea flowers are shown to demonstrate particular anticorrosive activity when used with mild steel in acidic media. An isolated flavonoid compound from M. aurea flowers, designated as apigenin-7-O-β-D-glucoside, is particularly useful for anticorrosive activity when used with mild steel in acidic media.	USPTO	US 9988726
550.	Hessah Abdullah M. Alhuwaish Khalid Abdulrahman A. Almoammar	9987111	05/06/2018	Occlusal canting identifying tool	The occlusal canting identifying tool includes a frame having an elongated horizontal portion and a pair of parallel side arms movably attached to the horizontal portion at opposite ends thereof. The tool further includes a vertical arm centrally positioned on the front of the horizontal portion and a measuring assembly positioned on the rear of the horizontal portion. The measuring assembly includes a protractor rotatably attached to the rear of the horizontal portion, the protractor being configured to rotate on a horizontal axis in relation to the horizontal portion, and	USPTO	US 9987111

					a bite plate connected to the protractor, the bite plate being adjustable forward and backward in relation to the protractor. The patient is instructed to bite on the bite plate, and if occlusal canting is present, the degree of canting is quantified by rotation of the protractor.		
551.	Abd El-Galil E. Amr Mohamed A. Al-Omar Ahmed M. Naglah	9975917	22/05/2018	Pentacyclic triterpenoidal derivatives	A pentacyclic triterpenoidal derivative can include 3,11-dioxo-24(phenyl)-urs-12-en-24-one (4), 24-norurs-12-en-24(phenyl)-3,11-dione (5), 3,11-dioxo-24(Phenyl)-urs-1,12-diene-24-one (6), or 24-nor-urs-1,12-diene-24(phenyl)-3,11-dione (7). The pentacyclic triterpenoidal derivative demonstrates highly potent 5-lipoxygenase inhibition activity.	USPTO	US 9975917
552.	Shaza Mohamed Adel Al-Massarani Rabab Abd El Moneim Khalil El Dib Ali Ali El-Gamal Manal Ahmed Gasmelseed	9974750	22/05/2018	Synthesis of ifflaionic acid nanoparticles	Synthesis of ifflaionic acid nanoparticles includes dissolving a powder of ifflaionic acid in an alcohol solution to form a first solution, adding the first solution to an aqueous solution under ultrasonic conditions to produce a sonicated solution, stirring the sonicated solution for a duration of time to produce a mixture, and freeze-drying the mixture to provide the ifflaionic acid nanoparticles.	USPTO	US 9974750
553.	Khalid Abdullah Ibrahim Alruhaimi	10357341	23/07/2019	Bony bracket screw	The bony bracket screw has a cross-slot head or a Phillips head and a shank extending from the head, the shank having a smooth upper portion, a threaded lower portion, and a self-tapping or self-drilling tip. The screw has an annual flange defining a stop disposed between the smooth upper shank and the threaded lower shank. The stop may have a larger diameter than the head. The screw has a bracket arm extending from the smooth upper shank at an oblique angle. The free end of the bracket arm has a round retainer, which may be circular or cylindrical and defines a smooth bore adapted for supporting a distractor or other dental appliance. The screw may be made from stainless steel or other noncorrosive, biocompatible material.	USPTO	US 10357341
554.	Ahmed M. Naglah Abd El-Galil E. Amr Mohamed A. Al-Omar	9969768	15/05/2018	Oleanolic acid methyl ester derivatives	Oleanolic acid methyl ester derivatives demonstrate potent anti-diabetic activities. In in vitro anti-diabetic testing, the derivatives showed more potency regarding dipeptidyl peptidase-4 (DPP-IV) inhibitor activity, peroxisome proliferator-activated receptors (PPARs) agonist activity, and α-Glucosidase inhibitors activity, as compared to reference standards oleanolic acid and acarbose. In in vivo oral hypoglycemic testing, both acute and sub-acute studies demonstrated that the derivatives had high potency and long duration of action compared to the reference standards pioglitazone, acarbose and oleanolic acid.	USPTO	US 9969768
555.	Sartaj Tabassum Hasan Hamad A. Al-Lohedan	9968767	15/05/2018	Combination microarray patch for drug delivery and electrochemotherapy device	The combination microarray patch for drug delivery and electrochemotherapy device is a medical device for delivering two separate pharmaceutical preparations to a patient, as well as providing electrostimulation for electroactive pharmaceuticals. A first pharmaceutical preparation is manually delivered into the patient through a first set of drug delivery needles. Similarly, a second pharmaceutical preparation is manually delivered into a patient through a second set of drug delivery needles. A desired electrical potential may then be selectively applied across first and second sets of electrotherapy needles for electroporation to facilitate delivery of the pharmaceutical preparations. The second pharmaceutical preparation may be a conjugate of the first for targeted drug delivery.	USPTO	US 9968767
556.	Amani Shafeek Awaad Ahmed Mahmoud Ahmed Alafify Reham Mostafa El-Meligy	10016425	10/07/2018	Anti-ulcerative colitis compound	Anti-ulcerative colitis compounds include quinazoline derivatives having the following structural formula:  	USPTO	US 10016425

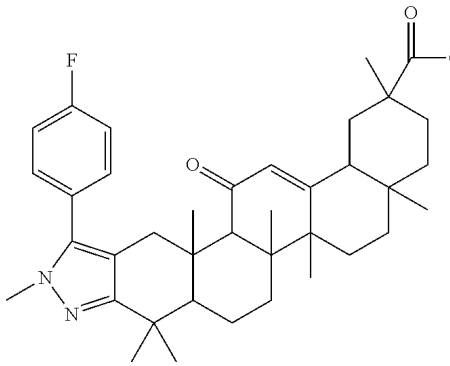
					○ wherein R is H, OH, or OCH_3, R_1 is OH or OCH_3, and R_2 is OCH_3 or a pharmaceutically acceptable salt thereof.		
557.	Veeramani Chinnadurai Khalid S. Al-Numair Mohammed A. Alsaif	9907817	06/03/2018	Biomimetic synthesis of antihyperglycemic silver nanoparticles	A biomimetic synthesis of antihyperglycemic nanoparticles using silver nitrate and Lavatera cretica is a method for the green synthesis of silver nanoparticles. These nanoparticles may be produced by extraction of fresh L. cretica leaves and mixing and incubation of the resulting L. cretica extract with silver nitrate to produce a nanoparticle composition including the silver nanoparticles. The nanoparticle composition may protect against hyperglycemia.	USPTO	US 9907817
558.	Mahmood M. S. Abdullah Ayman M. Atta Hamad A. Al-Lohedan Hamad Z. Alkhathlan Merajuddin Khan Abdulrahman O. Ezzat	9901903	27/02/2018	Biosynthesized magnetic metal nanoparticles for oil spill remediation	The biosynthesized magnetic metal nanoparticles for oil spill remediation are magnetic nanoparticles capped with an extract of Anthemis pseudocotula. The magnetic nanoparticles are formed by co-precipitation of ferric chloride hexahydrate and ferrous chloride tetrahydrate in an ethanol solution of the extract with the dropwise addition of ammonium hydroxide to raise the pH to between 8 and 11. The extract may be an extract of the aerial parts of Anthemis pseudocotula in a low polar extraction solvent, such as an n-alkane solvent or mono-di-, or trichloromethane. The extract is hydrophobic, improving dispersion of the magnetic nanoparticles in oil spills in seawater, resulting in 90% removal of oil for a 1:10 ratio of nanoparticles:oil by weight.	USPTO	US 9901903
559.	Abd El-Galil E. Amr Mohamed A. Al-Omar Nagy Mahmoud Hassan Khalifa	9896476	20/02/2018	Glycyrrhetic acid derivatives	The glycyrrhetic acid derivatives can include:	USPTO	US 9896476

formula (2)



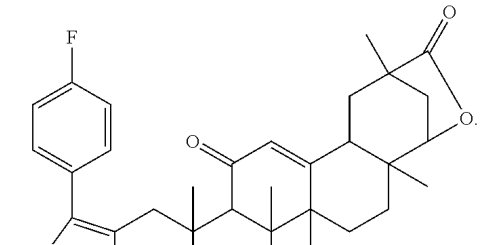
or

formula (3)

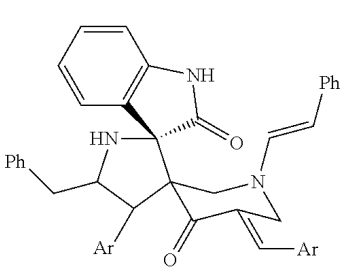
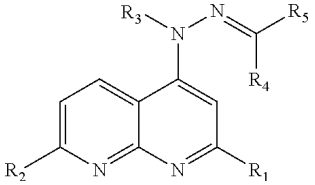


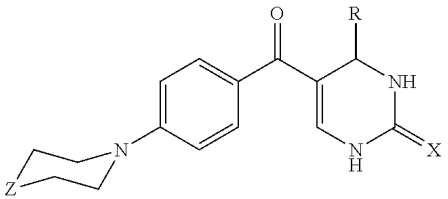
or

formula (4)



					The glycyrrhetic acid derivatives can be used to treat inflammation and/or ulcers.		
560.	Ali Abdullah Alshatwi Jegan Athinarayanan Periasamy Vaiyapuri Subbarayan Khalid Abdulkarim Alatiah	9896661	20/02/2018	Method of producing cellulose nanostructures	A method of producing cellulose nanostructures includes obtaining Bassia eriophora plant biomass and treating the Bassia eriophora plant biomass to produce the cellulose nanostructures. The cellulose nanostructures can be used as a three-dimensional scaffold for growing three-dimensional cell cultures, such as human mesenchymal stem cell cultures. The cellulose nanostructures can be cellulose nanofibrils.	USPTO	US 9896661
561.	Ayman Al-Jazaeri	9895146	20/02/2018	Wound closure device	The wound closure device includes an outer tubular housing, an inner shaft that extends through the housing, a needle control assembly at least partially disposed with the housing, a pair of hollow needles in communication with the needle control assembly, sutures in the housing, and a suture deployment assembly connected to a distal end of each suture and to the inner shaft. The needles can be inserted into a tissue to deposit the sutures and suture anchors at or near wound edges. The needles can thereafter be completely withdrawn from the tissue.	USPTO	US 9895146
562.	Mohammad Rezaul Karim Muhammad Omer Aijaz Nabeel Al-Harthi	9896651	20/02/2018	Antiseptic and fragrance-free soap	The antiseptic and fragrance-free soap includes about 5% to 30% percent by weight of deionized water, about 3% to 10% by weight of caustic soda, about 25% to 90% by weight of vegetable fat, and about 0.1% to 1% by weight of antibacterial nanoparticles. The vegetable fat can be selected from the group consisting of olive oil, coconut oil, palm oil, almond oil, jojoba oil, shea butter, or a combination thereof. The antibacterial nanoparticles are preferably silver nanoparticles made by any conventional method.	USPTO	US 9896651
563.	Ali Abdullah Alshatwi Jegan Athinarayanan Periasamy Vaiyapuri Subbarayan	9896342	20/02/2018	Synthesis of nanostructures from Phoenix dactylifera agro-wastes	A method of synthesizing nanostructures from agro-waste can include providing powdered Phoenix dactylifera agro-waste; mixing the powdered Phoenix dactylifera agro-waste with a liquid to provide a Phoenix dactylifera agro-waste solution; heating the Phoenix dactylifera agro-waste solution in a hydrothermal autoclave to provide a heated solution; and centrifuging the heated solution to provide a liquid fraction and a solid fraction. The liquid fraction can include a first plurality of nanostructures. The first plurality of nanostructures can include C-dots. The solid fraction can be further processed to provide a second plurality of nanostructures and a third plurality of nanostructures. The second plurality of nanostructures can include lignin nanoparticles. The third plurality of nanostructures can include cellulose nanocrystals. The nanostructures can be used in various applications, such as three dimensional cell culture, UV-protecting textiles, and bio-imaging.	USPTO	US 9896342
564.	Ahmed Mohammed Nabawy Nabawy El-Sayed M. Sherif Khalil Abdelrazek Khalil	9890442	13/02/2018	Method of preparing a metal matrix nanocomposite	A method for synthesizing a metal matrix nanocomposite (MMNC) is an in-situ synthesis technique for preparing a metal matrix with ceramic reinforcements dispersed homogenously therein. The method includes mixing a base metal matrix material with two or more ceramic-forming elements to form a mixture; blending the mixture; drying the mixture; ball milling the mixture with a plurality of milling balls to form a milled mixture; using induction heating to form a melt flow and induce electromagnetic forces; and initiating a plurality of stirring vortexes in the melt flow to form the metal matrix nanocomposite.	USPTO	US 9890442
565.	Manal Ahmed Gasmelseed Awad Rabab Abd El Moneim Khalil El Dib Awatif Ahmed HENDI Shaza Mohamed Adel Al-Massarani Khalid Mustafa Osman Ortashi	9889170	13/02/2018	Synthesis of nanoparticles using Balanites aegyptiaca	A method of preparing nanoparticles from desert date can include providing a metal salt solution comprising metal ions; providing desert date extract solution that comprises a reducing agent, and combining the metal ion solution and the desert date extract solution while stirring at a temperature in the range of 25° C. to 100° C. to produce metal or metal oxide nanoparticles. The metal nanoparticles can be gold nanoparticles. The metal oxide nanoparticles can be zinc oxide nanoparticles. The nanoparticles can be used to inhibit the growth or proliferation of a cancer cell and/or microorganisms.	USPTO	US 9889170
566.	Faisal Saud Fakhouri Abdulaziz Saud Fakhouri Justo Juvian Torres-Rodriguez	9987009	05/06/2018	Pneumatic actuator for dispensing surgical staples	The pneumatic actuator for dispensing surgical staples is a handheld actuator for use with a typical staple cartridge. A source of pressurized fluid is used to automatically drive forward movement of a plunger rod. As in a conventional, manually-driven surgical stapler, the forward movement of the plunger rod is used to actuate the surgical stapler to bend and eject a staple. The pneumatic actuator may be used with any suitable type of surgical staple cartridge, through coupling of the plunger rod thereto. The pneumatic actuator for dispensing surgical staples includes a housing having an upper portion, for receiving the pressurized fluid to drive the plunger rod, and a lower portion, which is configured to act as a gripping handle for the user. A finger-	USPTO	US 9987009

					actuated trigger is further provided, allowing for single finger release of the pressurized fluid to reset the pneumatic actuator for a surgical stapler.		
567	Abdulrahman I. Almansour Natarajan Arumugam Raju Suresh Kumar Periasamy Vaiyapuri Subbarayan Ali Abdullah Alshatwi Jegan Athinarayanan	9873699	23/01/2018	Anti-cancer agents	An anti-cancer agent having the formula: (I)  • ○ wherein Ph is a phenyl group and Ar is an aromatic group independently selected from the group consisting of phenyl, 2-bromophenyl, 4-bromophenyl, 2-chlorophenyl, 2,4, dichlorophenyl, 4-chlorophenyl, 2-methylphenyl, 3-methylphenyl, 4-methylphenyl, 2 methoxyphenyl, 3-methoxyphenyl, 4-methoxyphenyl, and 3-nitrophenyl; or a pharmaceutically acceptable salt thereof.	USPTO	US 9873699
568	Sahar Faisal Albarakati Bader Khalid Albalkhi	9872742	23/01/2018	Orthodontic hand instrument	The orthodontic hand instrument includes a handle portion having a first end and an opposing second end, as well as a first shaft extending outward from the first end and a second shaft extending outward from the second end, each shaft having a working end. The working end of each shaft includes a stoop having a gingival head and an occlusal head, and a vertical slot extending between the gingival head and the occlusal head. Both the gingival head and the occlusal head of the stoop of each working end have a rectangular shape. The handle portion may have a knurled surface or other suitable griping surface for preventing the hand instrument from slipping out of the orthodontist's hand. Further, each shaft can include a tapered portion adjacent to the corresponding working end.	USPTO	US 9872742
569	Ayman Sadek Ahmed El-Faham Zeid Abdullah Mohammed Al Othman Sameh Mohamed Mahmoud Osman	9873153	23/01/2018	Synthesis of metal nanoparticles using modified MPEG polymer	The synthesis of metal nanoparticles using a modified mPEG (methoxypolyethylene glycol) polymer includes the steps of: preparing a methanolic solution of a polymer; providing an aqueous solution including a metal salt; and combining the methanolic solution of the polymer with the aqueous metal salt solution to produce the metal nanoparticles, where the metal salt is $AgNO_3$, $CuCl_2$, $NiCl_2$, $CoCl_2$, $Pd(Ac)_2$, or $HAuCl_4$ and wherein the metal nanoparticles are silver, copper, cobalt, palladium, nicker or gold nanoparticles having a size between 1 nm and 100 nm in diameter.	USPTO	US 9873153
570	Nagy Mahmoud Hassan Khalifa Mohamed A. Al-Omar Abd El-Galil E. Amr	9855255	02/01/2018	Substituted naphthyridinyl hydrazines as anti-liver cancer agents	The substituted naphthyridinyl hydrazine compounds as anti-liver cancer agents that inhibit proliferative pathways of cancer cells, thereby exhibiting potent in vitro and in vivo anticancer activity. The compounds have the formula:  wherein R_1 and R_2 each are selected independently from hydrogen, mercapto, and C_1-C_5-alkyl, preferably methyl, ethyl, propyl, isopropyl or halogen; R_3 and R_4 each are selected independently from hydrogen, alkyl or halogen; and R_5 is selected from substituted or unsubstituted aryl, more	USPTO	US 9855255

					preferably from substituted phenyl, naphthyl, and substituted or unsubstituted heteroaryl, more preferably from furyl, pyrrolyl, thienyl, imidazolyl, thiadiazolyl, pyridinyl, pyridazinyl, pyrimidinyl, benzothiazolyl, oxadiazolyl or sugar moities. These agents exert their action through topoisomerase II inhibition.		
571	Mashooq Ahmad Bhat Mohamed Abdulrahman Al-Omar	9856232	02/01/2018	Dihydropyrimidinone derivatives	A dihydropyrimidinone derivative includes a compound having a chemical structure according to Formula 1: (Formula 1)  wherein ● ○ Z is selected from CH_2O, O, and N; ○ X is selected from O and S; and ○ R represents aryl, substituted aryl, heteroaryl, or substituted heteroaryl, wherein the substituted aryl or substituted heteroaryl have one or more substituents selected from the group consisting of halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, nitro, hydroxyl, alkylthio, alkylamino, heteroaryl, aryloxy, haloaryloxy, arylthio, arylamino, and pharmaceutically acceptable salts thereof. The present subject matter also relates to a method of making a dihydropyrimidinone derivative, a method of treating a gastrointestinal disease, a method of treating an ulcer, a pharmaceutical composition, and a method of making a pharmaceutical composition.	USPTO	US 9856232