

NIPO: 116-19-020-3



La Oficina Española de Patentes y Marcas tiene como misión impulsar la innovación y compartir sus resultados como valores y activos de diferenciación y desarrollo tecnológico. Por ello sus dos objetivos principales son proteger la innovación tramitando distintos títulos de propiedad industrial y difundir la información técnica contenida en las patentes a través de sus servicios de Información Tecnológica, uno de ellos estos Boletines.

En esta nueva andadura del Boletín de Vigilancia Tecnológica del Sector Transformador Plástico que comenzó el primer trimestre de 2021, se ha reestructurado el contenido del Boletín, intentando reflejar la realidad en propiedad industrial de la Industria del Plástico para hacer llegar a las empresas e investigadores del sector, con periodicidad trimestral, una selección de las patentes más recientemente publicadas en el sector de transformación de los materiales plásticos. Las patentes aparecen clasificadas en los siguientes apartados: nuevos productos en los principales

sectores de aplicación, invenciones que contribuyen al desarrollo sostenible, mejoras de procesos productivos y nuevos materiales plásticos con propiedades avanzadas. No se ha incluido en este Boletín información sobre la tecnología de impresión 3D, ya que esta aparece recogida en el Boletín de Vigilancia Tecnología Impresión 3D que la OEPM comenzó a publicar en el 2020.

A través de las imágenes que representan cada sección y que aparecen en la portada del Boletín, se accede de forma directa a los contenidos de las mismas, donde encontraremos el número de publicación de cada patente, quien la solicita, una pequeña descripción de la invención y el enlace de acceso al texto completo del documento. De forma complementaria, se incluye una selección de noticias sobre propiedad industrial y actividades relevantes de la OEPM.

Si se desea recibir este Boletín periódicamente basta con cumplimentar el correspondiente [formulario de suscripción](#)

Contenido

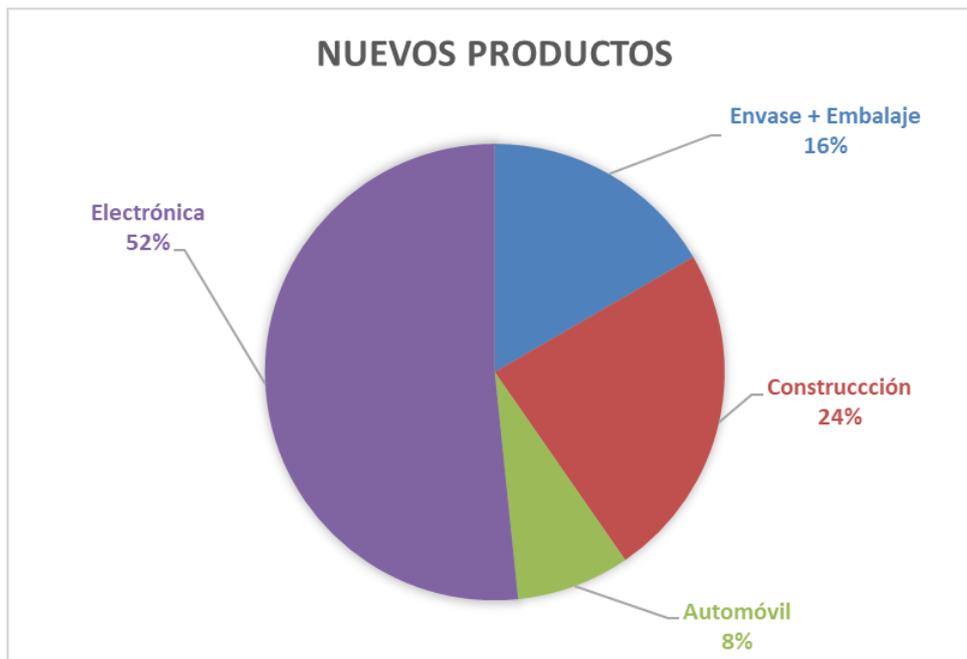


NUEVOS PRODUCTOS

SOSTENIBILIDAD Y
ECONOMÍA CIRCULARNUEVOS PROCESOS
INDUSTRIALESMATERIALES CON
PROPIEDADES AVANZADAS
O MEJORADAS

NUEVOS PRODUCTOS

En el siguiente gráfico se muestra la distribución de las 20.420 familias de documentos de patente recuperadas en este trimestre en el apartado de Nuevos Productos. Tal y como viene ocurriendo, el sector dedicado a la electrónica sigue siendo el que más documentos de patente aporta.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

Envase y Embalaje

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022125457	(MERV-N) MERVEILLE CO INC	Foldable silicone container for storing food for meal for individual, has compartment storage portion folded through predetermined pleats such that preset height of pleats fits within volume of band portion
WO2022109572	(SOFR-N) SOFRESH INC	Packaging system for storing a humidity-inducing product as a food product E.G. bakery good, cheese, has at least two multilayer film constructions used to provide an interior space around the humidity-inducing product

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4000587	(TREN-N) TRENTA2 SRL	Closure system for medication container, has radial sealing element with seal adapted to clear width of container opening with regard to deformability of material of sealing plug
WO2022091044	(CLOO-N) C LOOP PACKAGING SWEDEN AB	Recyclable container E.G. plastic bottle for holding food items, personal care items, cleaners, and industrial chemicals, has pattern of radial displacement of material of malleable can end with respect to longitudinal axis of can body
JP3237319	(NAKA-I) NAKAMURA H (SAIT-I) SAITO A	Package useful for storing embedded samples and accommodating various storage container for storing embedded biological samples, comprises rectangular parallelepiped container for storing storage containers, grid-like partition, lid and packaging unit having barcode attached to surface of container
BR202020015398	(NRMA-N) NR MAIS SABOR COMERCIO ATACADISTA E VAREJISTA PROD ALIMENTIC	Arrangement used in multi-compartmentalized packaging for canned foods, has front compartment set with three channels inclined at front surface, and shaped by linear recesses of concave profiles that cut transversely upper front edges connecting front portion of flap surface
GB2600112	(SMIT-N) SMITH PLC D S	Sack for dunnage or mailing items, comprises two facing panels sealed along perimeter and including layer of paper and film of laminated polymer, and multiple hermetically sealed individual air pockets trapped between inner and outer plies
JP3236519	(LICC-I) LI C	Lock structure for preventing opening of container main portion and upper lid of plastic lunch box, has recessed groove that is formed between fitting portion and lid fitting edge portion, so that opening prevention of main portion is prevented
JP2022026031	(TOXO) TOYO SEIKAN KAISHA LTD	Method for manufacturing of beverage container, involves forming three dimensional pattern by aggregating ink liquid drop discharge by inkjet printing on container, and providing container with curved surface on which inkjet three-dimensional patterns are formed
JP2022014240	(NIPQ) DAINIPPON PRINTING CO LTD	Laminate used for oxygen-absorbing packaging material, comprises base material layer, oxygen barrier layer comprising layer formed from oxygen-absorbing adhesive composition comprising oxygen-absorbing compound and oxidation-promoting catalyst, oxygen absorbing adhesive layer, and sealant layer

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2022019470	(TANI-I) TANIGUCHI Z	Bag with high adiabaticity, has air bubble sheet which is sandwiched between foamed sheets, and piece which is folded in half and is attached to outside of plastic bag
WO2022070756	(RICO) RICOH KK (FUJI-I) FUJITA K (HIRA-I) HIRAYAMA R (ITOH-I) ITOH M (SAKA-I) SAKAI S	Container I.E. polyethylene terephthalate bottle, has label attached to base material in container, where container includes patterns formed in set of stages on base material by laser irradiation
WO2022066115	(BESE-N) BESEL BASIM SANAYI & TICARET AS	Recyclable metalized barrier polyolefin film for packaging of individual wet wipes, comprises white polyethylene-ethylene vinyl alcohol-polyethylene film whose layers are formed by using E.G. low-density polyethylene, antistatic agent, and ethylene acrylic acid, and using medium-density polyethylene
KR20220021402	(BGFE-N) BGF ECOBIO CO LTD (KBFK-N) KBF CO LTD	Biodegradable egg carrier used for providing antiviral performance against E.G. feline coronavirus, comprises bottom plate egg seating grooves in a concave shape to accommodate eggs, detachable lid, or integrated lid connected to bottom plate and covering entire egg seating groove

Construcción Tejados

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022120374	(USSI-N) US SILICA CO	Reflective granular composition for forming roof material, comprises reflective pigment material containing maximum of kaolin clay and hardening additive containing sodium salt or other salt
KR20220074359	(RSCS-N) RS CONSTR MATERIALS	Method for constructing inorganic elastic penetration waterproofing agent for roof, involves forming floor of roof from inner peripheral surface of parapet, and forming pressed concrete layer on extended waterproof layer
US2018320370	(FIRE) FIRESTONE BUILDING PROD CO LLC	Construction board E.G. polyisocyanurate cover board, for use in commercial roofing systems, has first coating formed on external surface, and second coating arranged to internal surface, where second coating includes intumescent material

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR102405530	(JSCH-N) JS CHEM CORP (WOOA-N) WOOAM CONSTR CO LTD (WOOA-N) WOOAMSYSTEM CO LTD	Roof composite waterproofing method e.g. of buildings, comprises E.G. performing surface treatment, applying polyurethane-based primer layer, installing centering agent and applying coating agent on polyurea-based waterproofing layer
JP2022076585	(TOYT) TOYOTA MOTOR CORP	Roof material integrated solar cell module for use in E.G. building, has several strip adhesive layers for bonding solar cell panel to roof material that are extended along direction of water from water surface of roofing material
US2022135857	(BMIC-N) BMIC LLC	Adhesive formulation for roofing system, comprises high viscosity silyl modified polymer, moisture scavenger, and low viscosity silyl modified polymer
KR102398019	(PETR-N) PETRO IND CO LTD (KIMH-I) KIM H S	Urethane coating waterproofing material with high adhesion and flexible properties useful in civil structures and roof of concrete building comprise plasticizer, isocyanate, dimethyl carbonate, chain extender, and polyol
KR20220053392	(DAEH-N) DAEHAN STEEL CO LTD	Transparent panel for construction of E.G. roof, comprises glass fibers embedded in polycarbonate-made component comprising convex and concave portions in mesh shape with preset interval in horizontal and vertical directions
US2022120085	(LIUZ-I) LIU Z	Multi-layered roofing assembly comprises multi-layered membrane and base, multi-layered membrane comprising polymer layer, second photochemistry reaction layer, second adhesive layer, aluminum layer, first photochemistry reaction layer, first adhesive layer and Polyethylene terephthalate layer
US2022115979	(GAFF-N) GAF ENERGY LLC	Solar roofing system for generating electricity, has roofing shingle that is provided with exposure zone at lower end of top surface and headlap zone at upper end of the top surface
WO2022081689	(EMER-N) EMERA TECHNOLOGIES LLC	Solar roof for use in E.G. home to provide aesthetic and weatherproofing functions, has multiple solar panels coupled to roof of building, where solar panel is configured to be removed from roof without removing adjacent solar panel
WO2022056615	(DOLI-I) CORDEIRO DE OLIVEIRA E	Support for fixing roof-mounted photovoltaic panel applied on tile, has curved base have same shape as high section of tile and that is provided with side flaps for placing fixing pins on tile

Construcción Conducciones

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20220076106	(GEUN-I) GEUN G O	Pipe connection assembly for use in floating facility E.G. floating breakwater, has connection part made of connected material that is bent and unfolded along up and down, left and right directions due to elasticity of polyurethane material
EP4012135	(NAGY-I) NAGY-VARGA V	Coolable wood plastic composite (WPC) floor system for outdoor surface E.G. terrace, has pipe that is provided with nozzles arranged along length of pipe
JP2022067967	(SAOF) SANKI ENG CO LTD	Vertical piping unit for use in E.G. high-rise building, has two vertical pipes provided with take-out pipe which are integrated by trestle, while protective material covers outer peripheral surface of heat insulating material
KR102390333	(TAEJ-N) TAE JUNG IND CO LTD (WATE-N) WATERWORKS HEADQUARTERS DAEGU METROPOLIT	High-strength lining method for spray-type water supply pipe comprises spraying anticorrosive coating agent on inner peripheral surface of existing water supply pipe to form anticorrosive coating layer and molding polymer lined inner tube
JP2022044385	(SEKI) SEKISUI CHEM CO LTD	Multi-layer pipe comprises inner layer, outer layer, and intermediate layer arranged between inner layer and outer layer, where inner layer and outer layer each comprises vinyl chloride resin and inorganic filler, and intermediate layer comprises vinyl chloride resin and heat-expandable graphite
KR20220048162	(YOUN-I) YOUNG I K	Binding tool for frame for plastic house E.G. vinyl house, has fastener that is provided to form pressing groove in same arc shape as outer surface of transverse pipe
KR20220019911	(SUNJ-N) SUNJINECO CO LTD (TOUC-N) TOUCH GREEN CO LTD (WOOK-I) WOOK Y	Rehabilitating pipeline used for coating film on inside of pipeline, involves removing coating film formed on inside of pipeline, surface-treating inner surface of conduit, coating polyurea composition

Construcción Aislamientos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
ES1286172	(AKOU-I) AKOUDAD J	Arrangement for panels for cladding, and thermal insulation of ventilated facades, has exterior panel that is getting parallelepiped in shape, and is approximately eight cm thick made of EPS with a mixture of graphite
EP4000915	(THRA-N) THRACE NONWOVENS & GEOSYNTHETICS SA	Laminate used for insulation of roofs, includes reinforcement element and active element which is more flexible rather than reinforcement element and having strip overhanging beyond an edge of reinforcement element
TWM624030	(ZHIS-I) ZHISHAN F	Building-floor sound insulation laying composition comprises second layer composed of single-group or two-component polyurethane resin, which is laid above floor concrete layer, rubber sound insulation layer, and gray strips
DE102020130491	(FRAM-N) FRAMY GMBH	Elastic seal used in multiple-pane insulating glass, has resilient seal element is formed as barrier to spread of primary sealant into space between panes
JP2022072857	(SUZU-I) SUZUKI O	Heat insulating material for window of building, is made of foamed polystyrene having specified visible light transmittance, visible light reflectance and thermal conductivity
KR20220050309	(UWSO) UNIV WOOSONG	Heat insulating material with flame retardant property, has adhesive portion that is provided on outer surface of main portion so that main portion and Styrofoam are adhered to each other
US2022136236	(ROMR-N) ROM DEV CORP	Fire-resistant panel for use in E.G. marine vehicle, has insulative layer adjacent to inner and outside inner reinforcement layers, ablative core adjacent to insulative layers, and outer reinforcement layer enclosing layers of panel
JP2022042289	(SEKI) SEKISUI CHEM CO LTD	Building spray heat insulating material for E.G. ceiling, comprises one or more layered, locally dense areas that are denser than other areas inside
US2022107540	(TPKT) TPK TOUCH SOLUTIONS XIAMEN INC	Displayed light-adjustment device for blocking sunlight, insulating heat, and using as display in vehicle window, has adjustable light-shading layer that is interposed between first light-transmitting layer and display module
KR102380339	(NORO-N) NOROO PAINT & COATINGS CO LTD	Thermal insulation paint composition for refrigerated warehouses and floors that require high loads, comprises E.G. poly(methyl methacrylate) resin, oligomer resin, bio based resin, monomer, milled glass fiber, silica and aniline

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20220036426	(SHIN-I) SHIN G H	Polyvinyl chloride foam sound insulation floorboard with laminated glass fibers comprises plywood made by gluing veneers including surface decoration material attached to top of plywood using ethylene-vinyl acetate adhesive

Construcción Ventanas

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20220060658	(LEEW-I) LEE W J	Photovoltaic film structure used in glass window of building for condensing sunlight to convert solar energy into electrical energy, has heat insulating adhesive layer that is configured on one side of solar film so that solar film is attached to glass window
KR102399061	(SUJU-N) SUJUNGLASS CO LTD	Fireproof insulation double-layer window for use in balcony of flat, has desiccant inserted into internal empty space, and silicon filled in passage for sucking external moisture, where passage is formed in empty space from narrow side surface
US2021278720	(EINK) E-INK CORP (VLYT-N) VLYTE LTD	Switchable light modulator used as display, window, mirror, sun shade, or sign, comprises first substrate having first major surface, second substrate having second major surface, polymer wall structure having top and bottom
KR20220069277	(SUHW-N) SUHWOOMS CO LTD	System for controlling opening and closing of vinyl house window, has opening and closing control device that is installed at multiple places on frame of plastic house adjacent to motor and includes multiple location tags
ES1289629	(GOME-I) PENA GOMEZ J L	System for coating metal doors and window with sheets and tapes to break thermal bridge, has coating formed in situ with plastic materials E.G. thermoplastic and thermosetting polymers, where sheets and tapes are made up of layers
EP4000873	(FOMI-N) FOM IND SRL	Machine for welding section bars made of PVC material for manufacturing door and window frames, has applying assembly applying weld material on first and second end faces, and holding devices movable relative to one another
GB2600767	(MCMU-N) MCMULLAN & O'DONNELL LTD	Drainage cap for window or door frame assembly, has drainage opening for draining water to exterior of window or door frame, and water extraction unit for extending from cover unit into drainage chamber for drawing water out of drainage chamber

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20220052554	(BACK-I) BACK S (PARK-I) PARK S J	Assembly structure of horizontal bar and glass plate unit of window for commercial building, has main insulating material that is fitted in space formed by outer cover bar, first and second spacing bars and first and second inner cover bars
ES1288085	(ESCO-I) GONZALEZ ESCOBAR M	Roller blind slat for window of building in countries with hot climates, has slat units comprising different types of ventilation holes, where slat end of extruded aluminum includes safety latches inserted into guide channel and rubber stop
JP2022032551	(MITU) MITSUBISHI CHEM CORP	Light control element for smart window e.g. dimming window, has gel layer that is provided with sheet portion containing dielectric polymer material, and projection portion that is formed on positive electrode side of sheet portion

Automoción

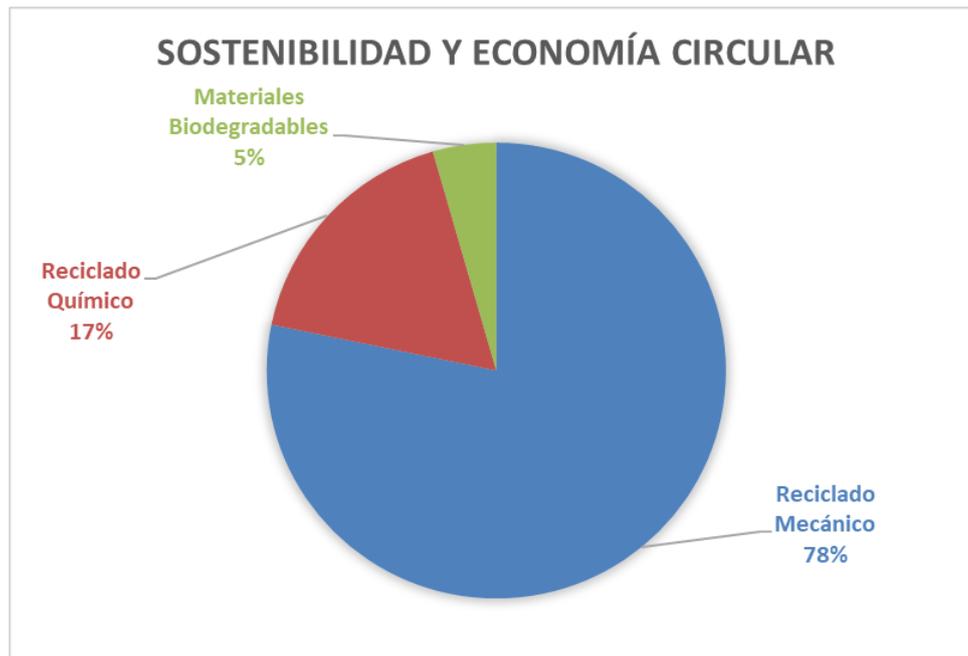
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20220074062	(KOFO-N) KOREA INST FOOTWEAR & LEATHER TECHNOLOGY (MUJI-N) MUJIN CO LTD	Interior material for automobile seat, comprises breathable polyurethane foam, lightweight polyester cushioning material disposed on upper side of foam, fibrous padding material formed in form of fabric, and surface material
US2022153069	(UYNT-N) UNIV NORTH TEXAS	Road noise reducing system for reducing tire-road interaction noise, has first layer of acoustic metamaterial comprising first set of open cells mounted on barrel, and second layer comprising second set of cells in contact with first layer
EP4011711	(FAUR) FAURECIA INNENRAUM SYSTEME GMBH (ZFAU-N) ZF AUTOMOTIVE GERMANY GMBH	Gas bag system for being mounted at interior panel of vehicle, has fabric element containing weakened zone being aligned with predetermined split line in plastic material cover that is designed to form flap for providing deployment opening
WO2022114497	(KOLO) KOLON IND INC	Rubber-reinforcing material used for tire, comprises fiber substrate, adhesive layer disposed on fiber substrate, and rubber compound layer disposed on adhesive layer
DE102021130145	(FAUR) FAURECIA INTERIOR IND	Covering element for vehicle, comprises at least one carrier layer and at least one decorative layer which is layer of carbon material defining at least one pattern in decorative layer, comprising at least one visible area of carbon material and open area

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
CN114274523	(JIAN) ANHUI JIANGHUAI AUTOMOBILE GROUP CO LTD	Anti-collision beam useful for vehicle comprises two thermoplastic carbon-fiber composite material panels, and two thermoplastic carbon-fiber composite material panels respectively set on upper side surface and lower side surface of thermoplastic honeycomb core panel
WO2022097094	(INVT) INVISTA TEXTILES UK LTD (INVP-N) INV PERFORMANCE MATERIALS LLC	Manufacture of woven fabric used for manufacturing article E.G. airbag, involves weaving spun synthetic polyamide yarns, and high-temperature-high-pressure-treating obtained woven fabric for providing woven fabric having preset bulk density and fiber relative viscosity density factor
WO2022097689	(SHOW) SHOWA DENKO KK	Bumper reinforcement used in automobile, has housing having one joint portion on vehicle chassis side, and resin reinforcing portion is joined to one joint portion with other joint portion, and reinforcing ribs that are projected toward vehicle chassis and extend along width of vehicle
DE102021111533	(GENK) GM GLOBAL TECHNOLOGY OPERATIONS INC	Hybrid metal-composite polymer wheel for use in E.G. automotive motor vehicle, has fiber reinforced polymer material extending through and surrounding overmold through-holes and insert tabs for securing wheel face to wheel cylinder
GB2601013	(VIRI-N) VIRITECH LTD	Tank for storing volatile gas under pressure, comprises wall formed of filament wound carbon fibre reinforced polymer with graphene nanomaterial filler dispersed in polymer adhesive matrix, where tank provides integrated hard points
DE102021116104	(HYMR) HYUNDAI MOTOR CO LTD (KIAK) KIA CORP	Vehicle chassis connection structure used in space frame vehicle chassis, has chassis element made of plastic composite material and that comprises instrument panel connection portion and cowl connection portion, connected to frame element and arranged around frame element to cover
DE102020127870	(RHEM) RHEINMETALL INVENT GMBH	Method for producing fiber-reinforced plastic (FRP)-made leaf spring device of motor vehicle, involves selecting stiffening elements from construction kit according to design of leaf spring device, and combining selected stiffening elements and leaf spring device to form leaf spring device
CN216268564	(JIAN-N) JIANGSU ZHONGCHENG COMPOSITES CO LTD	High strength automobile air conditioner glass fiber reinforced plastic cover plate, has left half ring and right half ring rotatably connected with cover plate through rotating piece, where half rings are connected by bolt assembly

VOLVER A
CONTENIDO

SOSTENIBILIDAD Y ECONOMÍA CIRCULAR

En el siguiente gráfico se muestra la distribución de las 1.300 familias de documentos de patente recuperadas en este trimestre en el apartado de Sostenibilidad y economía circular. El reciclado mecánico sigue siendo el sector que mayor actividad innovadora presenta.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

Materiales Biodegradables

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
ES2896848	(LANU-I) LOPEZ-POZAS LANUZA L E	Traceability capsule, comprises polymer selected from aliphatic polyesters and aromatic aliphatic polyesters, or starch and polylactic acid and biodegradable polymers of fossil origin and its mixtures that provides controlled disintegration
JP2022082180	(MITN) MITSUBISHI GAS CHEM CO INC	Biodegradable resin composition for fishing net, comprises polyamide resin and cobalt salt, where polyamide resin comprises constituent units derived from xylylenediamine, linear aliphatic dicarboxylic acid, aromatic dicarboxylic acid, aliphatic diamine, lactam, and aliphatic aminocarboxylic acid

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20220070861	(RYON-I) RYONG S	Biodegradable resin composition comprises biodegradable polymer resin having preset particle size and modified natural anhydrite
JP2022079986	(OKUR) OKURA IND CO LTD	Biodegradable heat-sealing resin composition used for biodegradable packaging film, comprises polylactic acid, aliphatic-aromatic polyester resin and titanium oxide
PL129204	(PLAS-N) PLAST FARB SP ZOO SPK	Plastic glove, comprises foil layers containing silver-based aseptic agents, and made of biodegradable foil and has seal around circumference and open cut on wrist
JP2022071424	(MITU) MITSUBISHI CHEM CORP	Resin composition for forming molded article, comprises polylactic acid-based polymer, acrylic polymer containing methyl methacrylate monomer unit and grafted copolymer obtained by graft-polymerizing vinyl monomer with rubbery polymer
WO2022085725	(DAIL) DAICEL CORP (DAIL) DAICEL MIRAIZU LTD	Biodegradable accelerator used for biodegradable resin for molded product for promoting biodegradation of biodegradable resin in seawater, fresh water and soil, comprises regenerated cellulose chosen from molded body containing fiber and film, powder, cotton-like material and molding intermediate
KR102392090	(SANG-I) SANG L Y	Plastic bags using recycled and biodegradable resins comprises mixed with more than one high-density polyethylene and linear low-density polyethylene, which are newer or regenerated recycled raw material resins
WO2022075232	(KANF) KANEKA CORP	Resin composition used for molded product for food, pharmaceutical and cosmetic, which are sensitive to odors, comprises poly (3-hydroxyalkanoate) resin and porous particles
WO2022075233	(KANF) KANEKA CORP	Multilayer film used as packaging material, comprises resin layers containing poly(3-hydroxyalkanoate)-based resin and having preset thickness ratio and heat quantity
KR20220032744	(HEON-I) HEON L	Environmentally-friendly bio composition for disposable product E.G. disposable chopsticks, spoons comprises mixture of coffee by-product generated by extracting liquid or solid coffee, and biodegradable water-soluble polymer resin
KR102377749	(KIMD-I) KIM D (OH-H-I) OH H	Producing biodegradable polymer composite useful as film comprises coating surface of wood flour by mixing first dried wood flour and stearate, mixing E.G. biodegradable polymer and performing secondary drying to prepare composition
KR20220034314	(HAND-N) HANDIT BACK TO NATURE	Composition used for preparing biodegradable film for E.G. umbrella, raincoats, mask, and foodstuff packaging material, comprises at least one chosen from biodegradable natural polymers, biodegradable synthetic polymers, biodegradable oxidized polymers and Eruca sativa extract

Reciclado Mecánico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20220075244	(SHIN-N) SHINWOO IND CO LTD	Producing pellet using waste synthetic resin, comprises E.G. storing waste plastic and waste vinyl to produce pellet, pulverizing waste vinyl in a crusher, washing pulverized waste vinyl with water, and removing water from washed waste vinyl
DE102020132442	(GREI) GREIF FLEXIBLES TRADING HOLDING BV	Method for recycling flexible bulk material container E.G. flexible intermediate bulk container (FIBC), involves separating container components, drying container components, and performing external or internal cleaning of bulk material container using fluid
GB2601411	(KUBI-I) KUBINA A	Device for crushing and storing plastic waste and sheet aluminium products I.E. beverage tins, in E.G. small enterprises, has prismatic frame detachably connected with both side walls of housing, and crusher located in crushing component over controller
US2022161461	(MOBI-N) MOBILE BIOCHAR SOLUTIONS LLC	Fiberglass recycling method, involves pyrolyzing feedstock in controlled kiln at specific temperature to completely remove all resins, epoxies, and other non-fiberglass components from feedstock, and recovering fiberglass end-product
DE102020130133	(KROE) KRONES AG	Method for treating plastic containers for plastic processing, involves crushing ejected plastic containers into large number of first plastic particles and subjecting first plastic particles to cleaning process in which color components are removed from first plastic particles
US2022143857	(ZIMB-I) ZIMBRON A	Waste management system for disposing bottles and reducing volume occupied by waste, has blade actuator that is configured to move blade from first position not aligned with circumference of container to second position
WO2022061476	(EXCI-N) EXCIR WORKS CORP	Preparing E-waste powder used for masterbatch composite and composite article or composite material comprises processing E-waste particles into slurry, extracting base metal and precious metal by chemical leaching and drying the resultant
WO2022091012	(STEE-N) STEER ENG PRIVATE LTD	Plastic recycling machine comprises housing defining housing inlet configured for receiving unsorted solid waste plastic material into housing, and housing outlet, crusher, extrusion system, and pelletizer
KR20220043081	(JUNG-I) JUNG W C	Pocket mattress peeling machine has rail attached side by side on top of machine body, wheels driven back and forth by gear-integrated motor on rail top, and table located on upper part by driving wheels and attached to table top

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102020006316	(WIKA) WIK FAR EAST LTD	Method for production of plastic material from recycled plastics, by placing mixed PET material, ABS material and additive materials in nine-belt extruder to perform nine consecutive steps at certain temperature levels
JP2022021812	(MORI-I) MORITOMI H (SAWA-I) SAWAKI N	Separation-and-recovery method for carbon fiber, involves separating carbon fiber assembly into carbon fiber bundles by splitting carbon fiber aggregate in longitudinal direction of carbon fiber from upper side to lower portion from above
KR102378752	(KOCT) KOREA CIVIL ENG & BUILDING TECHNOLOGY	Expanded polystyrene (EPS) block obtained from recycled waste materials, has EPS shell that is formed by suspension polymerization so that EPS particles and waste plastic particles are integrated by expansion and fusion within unit space

Reciclado Químico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022113847	(MITU) MITSUBISHI CHEM CORP	Decomposing polycarbonate resin used for producing bisphenol, alkyl-aryl carbonate and dialkyl carbonate, involves decomposing polycarbonate resin in slurry reaction liquid containing polycarbonate resin, aromatic monoalcohol, aliphatic monoalcohol and catalyst
JP2022076606	(IDEK) IDEMITSU KOSAN CO LTD	Waste plastic treatment method for forming liquefied petroleum gas, involves mixing molten waste plastic mixed oil to prepare mixture for decomposition treatment having preset dynamic viscosity, and supplying prepared mixture to decomposition treatment apparatus
KR102405681	(HPCH-N) HPC CO LTD	Chemical recycle of waste polyethylene terephthalate for producing raw material for synthesis of E.G. polyol resin, involves pre-treating cut waste polyethylene terephthalate by pulverizing and heating to manufacture regenerated chips, and depolymerizing by adding ethylene glycol and zinc acetate
KR20220068817	(KRIC) KOREA RES INST CHEM TECHNOLOGY	Method of decomposing polycaprolactone using Pseudomonas SP. strain expressing esterase, useful in polymer plastic degradation industry
WO2022109280	(SEAU-N) SEAUCIEL LLC	Recycling plastic material, involves treating set of plastic materials with fluid under subcritical conditions and/or supercritical conditions to provide precursor blend of plastic, where fluid is water

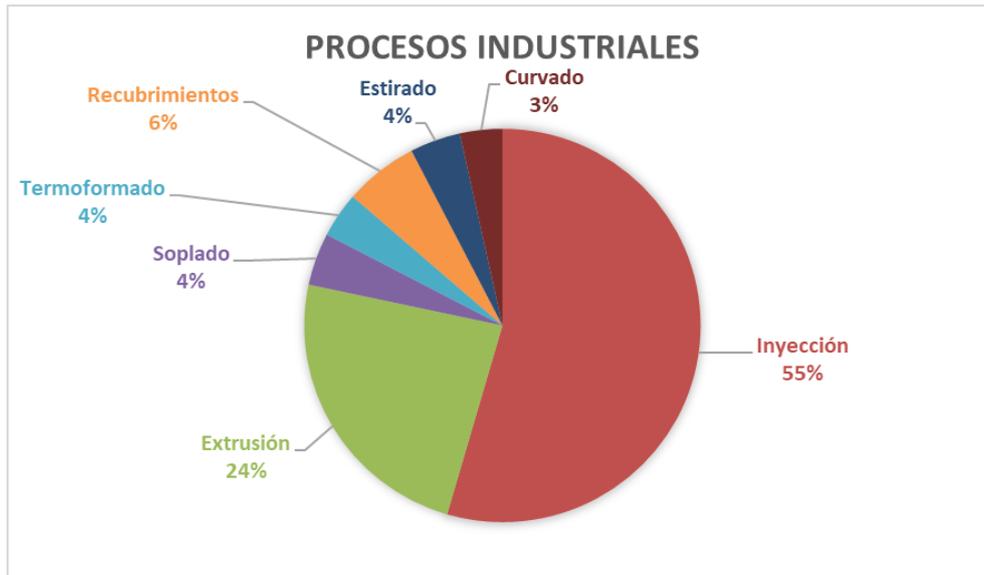
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022086513	(HEWP) HEWLETT-PACKARD DEV CO LP	Recovering fluoropolymer from three-dimensional printed object by dissolving fluoropolymer in fluoropolymer-dissolving solvent to generate dissolved fluoropolymer, separating particulate fusing compound and evaporating fluoropolymer-dissolving solvent from dissolved fluoropolymer
WO2022104442	(PETB) PETROBRAS PETROLEO BRASIL SA (UYRI-N) UNIV FEDERAL RIO DE JANEIRO UFRJ	Depolymerization of ethylene poly(terephthalate), involves adding poly(ethylene terephthalate) and sorbent to carry out pre-treatment step and adding aqueous solution and enzyme to carry out enzymatic depolymerization
WO2022104195	(CRYO-N) CRYOVAC LLC	Recycle of polyvinylidene chloride from composite material E.G. multilayer barrier film, involves subjecting material of polyvinylidene chloride to polar aprotic solvent, separating material that remains undissolved from solution, and collecting undissolved material of polyvinylidene chloride
TWI755879	(ATEN) INST NUCLEAR ENERGY RES ATOMIC ENERGY CO	Repolymerization method for recycling bioplastics, involves pyrolyzing polylactic acid fragments, adding activated carbon powder to lactic acid solution to adsorb impurities, and subjecting solution to vacuum concentration treatment
WO2022082163	(PROC) PROCTER & GAMBLE CO	Degrading superabsorbent polymer (SAP) to poly(acrylic acid) (PAA), comprises flowing feed stream having water and SAP into inlet of hydrothermal treatment (HTT) reactor and producing product stream having PAA at outlet of HTT reactor
WO2022094339	(APEE-N) APEEL TECHNOLOGY INC	Depolymerizing polyester- or polyamide-containing compounds into constituent oligomer and/or monomers by contacting a polyester- or polyamide-containing compound with nucleophile, mechanically processing, and isolating from second mixture
WO2022090079	(HANS-N) HANSEATIC ROHR GMBH	Reactor arrangement for decomposition of object consisting of plastic-based composite materials into individual components, has
WO2022086511	(HEWP) HEWLETT-PACKARD DEV CO LP	Recovering polyolefin polymer from three-dimensional (3D) printed object by dissolving polyolefin polymer of 3D printed object containing particulate fusing compound and polyolefin polymer in polyolefin-dissolving solvent, separating fusing compound and evaporating polyolefin-dissolving solvent
WO2022085725	(DAIL) DAICEL CORP (DAIL) DAICEL MIRAIZU LTD	Biodegradable accelerator used for biodegradable resin for molded product for promoting biodegradation of biodegradable resin in seawater, fresh water and soil, comprises regenerated cellulose chosen from molded body containing fiber and film, powder, cotton-like material and molding intermediate

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2022112351	(ADUR-N) ADURO CLEAN TECHNOLOGIES	Deconstructing macromolecules into lower molecular weight fragments involves configuring a flowpath to receive a prepared feedstock containing macromolecules, and conveying the prepared feedstock in a flowpath toward a reactor
BR102021025716	(ALVA-I) ALVAREZ B B (SOUZ-I) RODOMONTE SOUZA L C (SOUZ-I) RODOMONTE SOUZA L F	Recycling of elastomer waste used for manufacturing article, involves dissolving decrosslinking agent containing peroxide and persulfate in solvent and adding solution to form elastomer residue, performing agitation, adding water, and adding ozone
WO2022060942	(DUPO) DANISCO US INC	Modifying ester bond-containing polymer used to degrade plastic product comprises contacting the ester bond-containing polymer with polypeptide having polymer degradation or hydrolysis activity
KR102374303	(JOYA-N) JOY ADVANCED MATERIALS	Waste material recycling device for collecting plastic wastes, has stirring piece that is set in direction opposite to spiral direction of wing unit, such that the conveyed waste material is conveyed in reverse direction, and feed screw that rotates faster than rotation speed of other feed screw
WO2022061358	(UYWV-N) UNIV WEST VIRGINIA	Recycling or remanufacturing fiber-reinforced thermosetting polymer composite, comprises softening of fiber-reinforced thermosetting composite by partial solvolysis, reshaping softened thermosetting composite and infusing reshaped softened thermosetting composite with virgin thermosetting resin

VOLVER A
CONTENIDO

NUEVOS PROCESOS INDUSTRIALES

En el siguiente gráfico se muestra la distribución de las 12.030 familias de documentos de patente recuperadas en este trimestre en el apartado de Nuevos procesos industriales. Los procesos que mayor actividad innovadora reflejan son el de inyección y el de extrusión.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

Inyección

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022113839	(MITQ) MITSUBISHI ELECTRIC CORP	Nozzle cleaning device for cleaning nozzle of mixing head capable of discharging polyurethane foam for heat insulating material manufacturing device, has movement portion which moves nozzle between softening portion and gas spray portion
WO2022113845	(SUMO) SUMITOMO CHEM CO LTD	Pellet used as molding material in injection molding machine for manufacturing injection molded product, comprises liquid crystal polyester resin, and having specific average length and average diameter

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2022184867	(CANO) CANON KK	Method for manufacturing article using injection molding, involves injecting resin from injection nozzle through resin flow path in mold into cavity in mold after starting to increase distance between injection nozzle and mold
WO2022118840	(NASB) NISSEI ASB MACHINE CO LTD	Method for manufacturing resin container, involves using injection mold having partially convex portion formed in circumferential direction of bottom to change one of flow velocity and temperature of resin passing through convex portion
US2022144525	(PREG-N) PREGIS INNOVATIVE PACKAGING LLC	Padding article used for container system, comprises a cancellous body formed from an agglomeration of grains, in which the grains are made from a polymer material and are bonded together in a cancellous structure
DE102020130768	(OTTO-N) OTTO MAENNER GMBH (OTTO-N) OTTO MANNER GMBH	Injection mold of injection molding machine used for injection molding of thermoplastic material E.G. plastics, has one cavity half which is arranged in cavity block during closed position of mold with corresponding another cavity half arranged at one mold half
WO2022102977	(DAEW-N) DAEWOONG THERAPEUTICS INC (DAEW-N) DAEWOONG THERAPEUTICS	Method of manufacturing microneedle array, involves manufacturing mold for manufacturing microneedle including intaglio portions by injection molding thermoplastic resin, and molding microneedles by injecting microneedle raw material into intaglio portion
US2022152897	(TOYT) TOYOTA JIDOSHA KK (TOYT) TOYOTA MOTOR CORP	Injection molding machine for injecting molten resin by causing piston to be slid inside cylinder, has controller for controlling drive parts such that period during which resin is injected from first cylinder overlaps period
WO2022098036	(SMSU) SAMSUNG ELECTRONICS CO LTD	Valve pin of hot runner system for supplying molten resin to mold apparatus, has spiral grooves that are recessed in outer circumferential surface, and are formed to be spaced apart from each other
DE102021127924	(DOCT-N) DOCTER OPTICS SE	Method for producing lenses for headlight of car, involves injection molding optical element by blank injection mold corresponding to injection mold of injection molding machine
WO2022085580	(FUFA) FANUC CORP	Device for setting molding condition of injection molding machine, has increase/decrease rate calculation unit that creates history information in which calculated feature amount increase/decrease rate is associated with information related to change of value of acquired operation command item

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2022126492	(MLDM) MOLD-MASTERS 2007 LTD	Injection molding apparatus for delivering a molding material received from a source to multiple mold cavities, has valve pin holder that releasably couples valve pin to valve pin plate, and biasing element that is compressed against support surface by pin holder when pin plate is in closed position
WO2022079095	(BOSC) BOSCH GMBH ROBERT	Method for simulating fiber orientation in component made from fiber-plastic composite material produced using plastic casting process, involves carrying out injection molding simulation to obtain distribution of fiber orientation
WO2022063599	(LEGO) LEGO AS	Injection-molding tool for automated molding of plastic items, has seal that comprises lid made from plastic material and arranged between second compensator portion and space in socket
US2022111565	(ROLE) ROLEX SA	Injection mold for manufacturing timepiece components, has intermediate plate that is arranged between two portions of mold core, and has first cutout forming portion of injection cavity of injection mold
WO2022076782	(SYNV-N) SYNVENTIVE MOLDING SOLUTIONS INC	Resiliently compressible cushion or spring for cushioning axial force exerted by actuator or valve pin in injection molding apparatus, is arranged between valve pin and either of mount fixedly interconnected to actuator or drive device
WO2022075192	(NSHA) NISSHA CO LTD	Injection molded product used in antenna for transmission and reception of radio communication, has sealing material formed on first conductive layer to cover through-hole, and molded resin object formed on substrate sheet so as to cover sealing material and configured with injection molding resin
US2022063212	(BEAE) BE AEROSPACE INC	Manufacturing aircraft seat including set of plastic components involves disposing set of metallic wires reinforcements in a mold, where plastic component is molded via one of rotational molding

Extrusión

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022118182	(PIRE) PIRELLI TYRE SPA	Extrusion of semi-finished product made of elastomeric material, E.G. tire for vehicle wheels, by feeding elastomers to inlet channel of gear pump, and feeding extruded product to forming support
DE102020215145	(HELI-N) HELIX GMBH	Single-screw extruder for plasticizing plastics for producing foamed plastics, has cylinder in area of cooling zone which is provided on inside with spiral groove open towards conveyor screw and cylinder is provided on outside in cooling zone with cooling groove which is assigned to helical groove
DE102020131584	(WEBE-N) WEBER MASCHFAB GMBH HANS	Device for extrusion-based production of three-dimensional object, has control device that controls operation of temperature control element for temperature control or specific surface or volume element of device or three-dimensional object manufactured on basis of parameter
WO2022105964	(GNEU-N) GNEUSS GMBH	Support bearing element for extruder screw of multi-screw extruder, has slide bearing provided in groove for mounting satellite worm and drive pinion, and bearing recess located directly behind cone
WO2022100792	(GNEU-N) GNEUSS GMBH	Multi-shaft processing unit for plastic melt, comprises extruder housing(s), and rotor body shaft(s) rotatably mounted in treatment chamber and having receiving grooves in each of which satellite screw is mounted
EP3991563	(VISA) VISKASE CO INC	Edible cellulosic casing for E.G. sausages, comprises cellulose, and at least one modifier comprising polysaccharide(s) and being uniformly distributed with the cellulose throughout a casing material of the edible cellulosic casing
DE102020127658	(BATW) BATTENFELD-CINCINNATI GERMANY GMBH	Downstream unit in extrusion line, has vacuum tank that is provided with water inlet and water outlet such that upper portion is designed and is provided with area in which volume of water is kept and area in which air volume is present
WO2022069746	(WIND-I) WINDELS L	Material extrusion system for three-dimensional printing device, has arrangement permitting modification of thickness or shape of extruded material or modification of different components without using any type of external tool
WO2022066021	(NEDE) NEDERLANDSE ORG TOEGEPAST NATUURWETENSCH (CHEM-N) CHEMELOT SCI PARTICIPATIONS BV	Long fiber thermoplastic extruded material producing method for E.G. door panel, involves extruding feed stream in extrusion system, and extruding another feed stream from extruder

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022061206	(AQOR) ARKEMA INC	Extruder for making block of active media and polyvinylidene fluoride (PVDF) polymer binder, has extruder barrel that comprises flighted heating zone and unflighted forming zone
WO2022058619	(GALA-I) GALAGAN A (MANO-I) MANOJLOVIC M	Pellet used to manufacture water-soluble articles which is in form of E.G. film, bag, container, pouch, packaging, glove, disposable hygiene products or envelope, comprises polyvinyl alcohol, vegetable oil, modified starch and protein
EP3970971	(NRDA) MBDA ITAL SPA	Producing composite reactive material used for producing ammunition parts, comprises mixing fluorinated polymer with metal powder at temperature to form viscous mixture of composite reactive material and extruding viscous mixture to produce profiled elements of composite reactive material

Soplado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102020131365	(KROE) KRONES AG	Method for operating system for treating containers e.g. bottles such as plastic containers, involves collecting data value in relation to container and in relation to treatment step of container and establishing association between data value and respective identifier of container
EP3492787	(SEIT-N) SEITZ AG EUGEN	Valve unit for use in extrusion blow or stretch blow molding machine for production of plastic bottle, has valve housing that is set with closing ring, in which closed state of connection seals against valve seat of piston
WO2022085037	(COVI-I) COVI E	Preform assembly for producing E.G. bag-in-container type container, has grooves extending partly in longitudinal direction of assembly, where grooves define preferential channels for passage of fluid in hollow space
WO2022090493	(SIDL) SIDEL PARTICIPATIONS	Controlled system for manufacturing containers by blow molding or stretch/blow molding, comprises computer to control actuator modules based on reading of identifier for each product to be made
WO2022090991	(IVAS-N) I-VASC SRL	Mold for forming expandable balloon for medical-surgical applications, comprises die comprising wall partially delimiting concave portion of mold cavity, and counter-die(s)
WO2022063717	(ALPL) ALPLA WERKE ALWIN LEHNER GMBH & CO KG	Method for blow molding container E.G. glass bottle, involves pressing inner wall of fiber-based shell onto outer surface of preform by gripper

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022064833	(YOSK) YOSHINO KOGYOSHO CO LTD	Liquid blow molding apparatus for molding preform into container for storing beverage, has discharge port which is arranged in upper end portion of longitudinal flow passage while side of discharge opening and closing valve is inclined
EP3970946	(NORG-N) NORGREN AG	Blow molding device for expanding thermoplastic form into hollow container, has valve that is connected to blowing fluid source for injecting blow fluid from blow fluid source, and throttle that is configured to control flow of blow fluid

Transformado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022099540	(QUES-N) QUEST COMPOSITE TECHNOLOGY CORP	Manufacturing method of composite material formed luggage box, involves heating in inner concave die area of mold, thermosetting carbon fiber layer and reinforcing layer for heating, so that shell and plastic layer are combined with each other
WO2022090940	(MINN) 3M INNOVATIVE PROPERTIES CO	Thermoforming of multilayer polymer film used as article in dental appliance, involves arranging thermoplastic polymer layer on another polymer layer, having preset glass transition temperature to obtain three-dimensional shape, and crosslinking
JP7049707	(DONG-N) DONGGUAN YONGHU COMPOSITE MATERIAL CO LTD (QUES-N) QUEST COMPOSITE TECHNOLOGY CORP (QUES-N) QUEST COMPOSITE TECHNOLOGY LTD	Manufacturing method for travel bag made of composite material involves heating thermosetting carbon fiber plastic layer and reinforcing layer, and bonding them to each other
EP3988275	(CMSC-N) CMS SPA	Thermoforming apparatus for thermoforming plastics, has fluid outlet port arranged on frame and configured to emit cooling fluid, and generating unit configured to generate flow of cooling fluid emitted by port
EP3988276	(CMSC-N) CMS SPA	Method for controlling thermoforming cycle on article made of thermoplastic material, involves verifying compliance with relationship criterion between detected actual geometry and desired geometry
WO2022070203	(INIA) DEFENCE RES & DEV ORG (CHAI-N) CHAIRMAN DEFENCE RES & DEV ORG	Article handling system for naval surface warfare vessel/ship, has third drive unit that includes second hand-wheel or torque wrench for coupling to cubical worm gear screwjack for manually controlling angular pitch position of article bed

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022054350	(KURI-N) KURIMOTO CO LTD	Method for treating surface of modeled object E.G. carbon fiber reinforced plastics (CFRP) molded product into smooth surface, involves filling finely uneven portion with filler, and curing filler covering surface of model to integrate filler into model

Recubrimiento

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
GB2602033	(ANEM-N) ANEMOI MARINE TECHNOLOGIES LTD	Method of manufacturing rotor body forming unit of rotor sail of a vessel, involves winding first fibres around mandrel to form tubular first skin forming rotor tube having tube axis, and forming multiple strips from second fibres
FR3116468	(AQOR) ARKEMA FRANCE	Multilayer structure including tank, pipe or tube, useful for transport, distribution or storage of liquid hydrogen comprises sealing layer in contact with liquid hydrogen and composition comprises polymer and polychlorotrifluoroethylene
WO2022105909	(HUAW) HUAWEI TECHNOLOGIES CO LTD	Membrane attaching method of lens, involves controlling first fixture to move relative to second fixture, so that middle position of lens to edge position is gradually jointed with diaphragm
WO2022074545	(RESI-N) APPLIED RESIN SL	Remediation and repair of pipeline by providing composition comprising resin E.G. acrylic, methacrylic or epoxy resin, and photoinitiator compound, adding co-hardener compound, impregnating substrate with composition, inserting substrate inside pipeline, expanding and activating photoinitiator

Estirado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022113958	(KURS) KURARAY CO LTD	Production of polarizing film for high-performance LCD, involves dyeing polyvinyl alcohol film with dichroic pigment, uniaxially stretching in aqueous solution comprising boric acid at preset total stretch ratio, and drying stretched film
WO2022103235	(SMSU) SAMSUNG ELECTRONICS CO LTD	Electronic device for use with external electronic device in network environment, has components whose intersection forms curved structure, and sealing portion whose portion adjacent to curved structure includes battery including elongate structure formed based on curved structure
EP3988281	(BRKM) BRUECKNER MASCHBAU GMBH & CO KG	Longitudinal stretching device for longitudinal stretching of plastic film, has structural unit that is arranged in longitudinal stretching unit in exchangeable manner and dismantled and replaced by another structural unit
US2022105672	(FABK) FACEBOOK TECHNOLOGIES LLC	Manufacturing optically anisotropic polymer thin films involves attaching a clip array to opposing edges of polymer thin film, and applying positive in-plane strain to polymer thin film along transverse direction by increasing a distance between first clips and second clips
WO2022071372	(KURS) KURARAY CO LTD	Production of film for polarizing plate, involves swelling polyvinyl alcohol film having preset thickness, dyeing by immersing polyvinyl alcohol film in aqueous solution containing iodine and potassium iodide, and crosslinking/stretching
KR20220029427	(KOLO) KOLON IND INC	Manufacture of polyester film used as base film in manufacture of multilayer ceramic capacitors, involves supplying melt of resin composition containing polyester resin onto imprint roll having uneven pattern formed on outer circumferential surface to form unstretched film

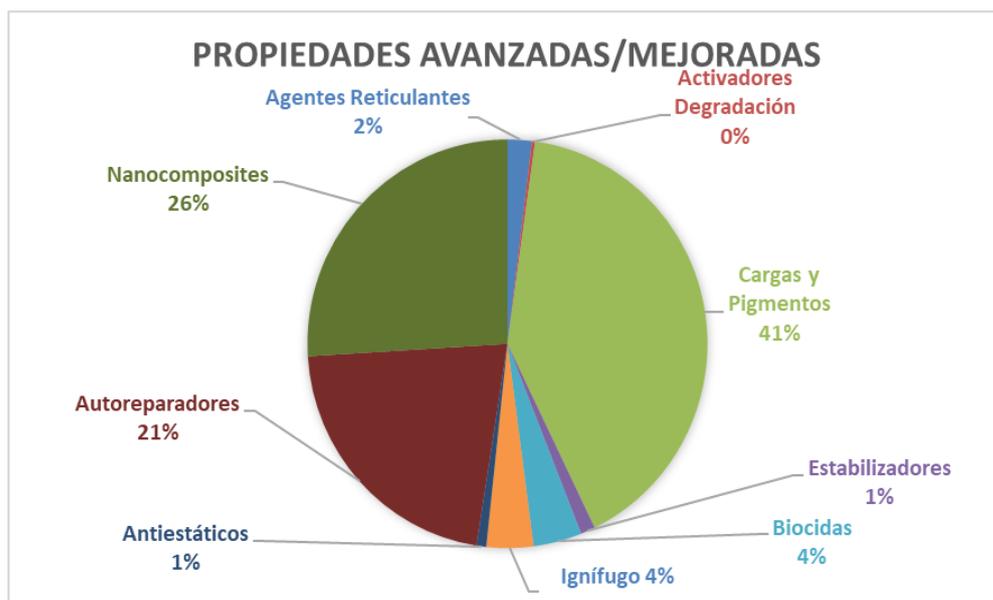
Curvado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102020007133	(TRUP-N) TRUPLAST KUNST GMBH	Method for producing coiled tubing used as connecting lines for compressed air brake system mounted in articulated lorries, involves calibrating extrudate which is drawn down from nozzle gap and is still plastically deformable in shaping device to obtain geometrically defined profile cross section
FR3116320	(EADS) STELIA AEROSPACE	Pipe mounted in fluid circuit of aircraft, has tube that defines inner surface and outer surface and reinforcing strip that extends longitudinally on outer surface of longitudinal portion of tube so as to form reinforced portion of tube
EP4008531	(BOEI) BOEING CO	Forming apparatus for ply by ply forming of composite parts, has end effector movably connected to carriage and controlled by actuator, and ply support feature located below first stomp foot
US2022160405	(CARL-N) CARLSMED INC	Patient-specific jig for confirming correct contour of fixation element in operative setting, has inner contour guide having shaped cross-section and shaped in contoured curve along longitudinal axis of jig structure
WO2022074129	(GENE) BLADE DYNAMICS LTD	Method for manufacturing blade shell section for wind turbine blade, involves providing panel section as sandwich construction made of fiber-reinforced thermoplastic material and comprising core material sandwiched between fiber reinforcement sheets
WO2022049618	(MITO) MITSUBISHI HEAVY IND CO LTD	Molding apparatus for molding fiber sheet into shape, has covering portion which covers fiber sheet, and pressing apparatus which presses fiber sheet to molding die with covering portion

VOLVER A
CONTENIDO

MATERIALES CON PROPIEDADES AVANZADAS O MEJORADAS

En el siguiente gráfico se muestra la distribución de las 766 familias de documentos de patente recuperadas en este trimestre en el apartado de Materiales con propiedades avanzadas o mejoradas. En este trimestre el volumen de documentos de patente a cargas y pigmentos sobresale claramente al resto de propiedades estudiadas.



Las siguientes tablas muestran una selección de los documentos más representativos, junto con un enlace directo a la base de datos Espacenet, el solicitante y una breve descripción de la invención.

Cargas y Pigmentos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP7080387	(ELED) DENKA CO LTD	Water-expandable water-stopping composition used as sealing material, comprises rubber component having preset gel fraction, and water-absorbent resin which is E.G. acrylic polymer, cellulose-based compound, alkylene oxide-based polymer and/or crosslinked isobutylene-maleic acid copolymer

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2022189902	(SMSU) SAMSUNG ELECTRONICS CO LTD	Non-conductive film for semiconductor package, comprises a non-conductive film sheet containing an irreversible thermochromic pigment, a cover film formed on one opposing surface of the non conductive film and another cover film formed on the other opposing surface of the non conductive film
US2022153918	(DIVE-N) DIVERGENT TECHNOLOGIES INC	Resin composition used in electronics industry as a potting compound or an underfill, comprises an isocyanurate component bonded to an acrylate component, and electromagnetic radiation initiator component
KR20220066509	(HKOK) HANKOOK TIRE & TECHNOLOGY CO LTD	Tire used for electric vehicles, comprises sound absorbing material layer, sealant layer located on inner surface of tire, sealant layer positioned between inner surface of tire and sound absorbing material layer, and film layer
JP2022072333	(ASAG) AGC INC	Composition used in liquid composition for laminate and film, comprises particles of heat-meltable tetrafluoroethylene polymer and whiskers of aluminum nitride
JP2022038182	(RICO) RICOH KK	Aqueous dispersion used for ink for printing, contains pigment-encapsulating resin particles containing pigment and surfactant
JP2022072708	(DENK) TDK CORP	Modified polyvinyl acetal resin compound used in resin composition for forming resin film E.G. hot-melt type adhesive film, comprises vinyl alcohol unit, vinyl acetal unit, vinyl acetate unit and ether-modified unit
WO2022092844	(GLDS) LG CHEM LTD	Production of superabsorbent polymer used in sanitary material E.G. diapers, involves cross-linking and polymerizing water-soluble ethylenically unsaturated monomer, drying, pulverizing, and classifying hydrogel polymer, and raising temperatures
JP2022054886	(KYOG) KYOWA LEATHER CLOTH CO LTD	Heat shield film used as exterior material of vehicle, has white reflective layer including at least one synthetic resin chosen from PVC resin, acrylic resin and fluororesin, where film contains white pigment and fluorescent whitening agent based on total solid content of white reflective layer
WO2022081440	(SLMB) SCHLUMBERGER CANADA LTD (SLMB) SCHLUMBERGER TECHNOLOGY BV (SLMB) SCHLUMBERGER TECHNOLOGY CORP (SLMB) SERVICES PETROLIERS SCHLUMBERGER	Elastomer alloy used in sand screen apparatus for downhole operation for hydrocarbon recovery, comprises base polymer comprising hydrogenated nitrile butadiene rubber, and polymer chosen from paraffin wax, low-density polyethylene, linear low-density polyethylene and high-density polyethylene

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022080396	(MITA) MITSUI CHEM INC	Organosilicon compound graft copolymer used in rubber composition for tires, comprises main chain portion derived from ethylene/alpha-olefin copolymer and graft portion derived from organosilicon compound containing unsaturated group(s)
KR102390538	(BEYO-N) BEYOND COURT CO LTD (JEON-I) JEON C T (KIMT-I) KIM T	Multi-purpose heat-insulating composition for forming coating film, comprises deionized water, dispersant, defoaming agent, thixotropic agent, colorant, aerogel powder, film-forming agent, waterproofing agent, thickener, aqueous acrylic having preset solid content, calcium carbonate and talc
US2022106485	(FABK) FACEBOOK TECHNOLOGIES LLC	Elastomeric material used in electrode, comprises cross-linked polymeric matrix comprising adduct of unsaturated precursor and nucleophilic precursor
US2022089817	(BOEI) BOEING CO	Composition for compaction roller for automated fiber placement machine, comprises polyamide, which is polymeric reaction product of diamine and/or aromatic dicarboxylic acid, hydroxy benzoic acid, or their ester or acyl halide derivatives
WO2022061048	(CMFC) CHEMOURS CO FC LLC (MITA) CHEMOURS-MITSUI FLUOROPRODUCTS CO LTD	Compression molding composition used in molded product E.G. sliding material and sealing material, comprises emulsion-polymerized PTFE, heat-processable fluoropolymer having specified melt flow rate, and filler
KR20220029262	(CMTE-N) CMTECH	Heat dissipation pad composition E.G. for semiconductor equipment comprises ceramic heat dissipation filler dispersed in silicone resin made of liquid silicone gel and silane coupling agent disperse heat dissipation filler in silicone resin
WO2022075312	(DNIN) DIC CORP	Stereolithography resin composition used for forming molded product, comprises UV curable resin, and inorganic pigment having preset specific gravity and particle size distribution, and has preset viscosity

Agentes Reticulantes

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102020214280	(CONW) CONTINENTAL REIFEN DEUT GMBH	Sulfur-crosslinkable rubber mixture useful to produce vulcanizate for component, preferably tread of vehicle tire I.E. passenger car, comprises polyisoprene containing natural and synthetic polyisoprene, silica, and silanes
WO2022092083	(KURS) KURARAY CO LTD	Curable composition used for forming sealant, comprises conjugated diene polymer and crosslinking agent
EP3988970	(CNSJ) CONSEJO SUPERIOR INVESTIGACIONES CIENTIF (CONS-N) CONSORCIO CENT INVESTIGACION BIOMEDICA (CATA-N) FUNDACIO INST CATALA NANOCIENCIA I NANOT (CATA-N) INST CATALANA RECERCA I ESTUDIS AVANCATS	Material with opto-mechanical behavior, comprises cured elastomeric polymer layer having first and second surfaces and many metallic, dielectric and/or dielectric-metal coated nanostructures
WO2022077090	(ADVE-N) ADVEN IND INC	Treating hydrocarbon materials with thermoplastic nature to increase their softening point, comprises mixing sulfur-containing gaseous catalyst with hydrocarbon material, heating mixture in flowing gas environment and stirring mixture until hydrocarbon material becomes solid
WO2022066319	(DOWC) DOW GLOBAL TECHNOLOGIES LLC	Waterborne laminating barrier adhesive composition useful for producing a multilayer laminate, comprises water-based acrylic polymer emulsion component, nanocellulose component, and optionally isocyanate crosslinker component

Activador Degradación

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022064253	(RHOD) RHODIA BRASIL SA	Use of composition comprising mineral filler for improving marine biodegradability of marine biodegradable polymeric composition for cosmetic formulations for anti-aging, cleansing, sensorial modification, matifying, and moisturizing applications, and for industrial or textiles applications

Biocida

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4000398	(HUEC) HUECK FOLIEN GMBH	Film useful in complex material for cleaning, disinfecting and protecting surfaces of equipment for public buildings and vehicles against viruses, bacteria and fungi, comprises carrier substrate made of plastic material, and antimicrobial and/or antiviral coating
JP2022011138	(INOA) INOAC CORP KK (INOA) INOAC TECH CENT CO LTD	Emulsion composition useful for forming foamed sheet, comprises resin component, surfactant and antiviral agent
JP2022051507	(INOA) INOAC CORP KK	Polyurethane foam used in mask, is formed from polyurethane foam composition comprising polyol, polyisocyanate, foaming agent, catalyst and additive comprising antibacterial agent comprising porous silicate mineral synthesized from metal oxides, silica and alumina
BR102020015287	(LIMA-I) LIMA A M (ROVI-I) ROVITO R	Plastic film used providing antimicrobial effects to surfaces and articles, is obtained by melting, softening and homogenizing raw material of different resins with antimicrobial additive(s) by adding zinc oxide nanoparticles in grains, powder, masterbatch or solution form to polymeric mass

Ignífugo

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20220053132	(GLDS) LG CHEM LTD	Thermoplastic flame-retardant resin composition used for forming molded article, comprises styrene-based resin, polyalkylene-based block copolymer comprising polypropylene oxide unit, and siloxane-based polymer having preset kinematic viscosity
KR20220049707	(GLDS) LG CHEM LTD	Thermoplastic flame retardant resin composition useful for flame-retardant resin molded article, comprises styrene-based resin, triazine-based halogen flame retardant, flame retardant auxiliary agent and hydrogen halide scavenger
WO2022080239	(MABU) MARUBISHI OIL CHEM CO LTD	Flame-retardant polypropylene-based resin composition for forming molded product, comprises bisphenol S derivative, tetrabromobisphenol A bis(2,3-dibromopropyl)ether or tris(2,3-dibromopropyl)isocyanurate and antimony trioxide, antimony pentoxide, zinc molybdate, boron trioxide or zinc borate
DE102020212619	(SIEI) SIEMENS AG	Fiber matrix semi-finished product used for manufacturing current protection device E.G. circuit breaker, comprises reinforcement fibers, resin-based molding compound, and filler comprising unexpanded perlite

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102020124334	(BUDE) CHEM FAB BUDENHEIM OETKER R A	Composition used for preparing polymeric material and aqueous solution used as coating material for wood and metal, comprises ammonium polyphosphate, and salt or combination of salts chosen from alkali and alkaline earth metal salts
WO2022055840	(LANG-I) LANGSELIUS B A	Flame-retardant composition used for inhibiting or preventing fire in material e.g. solid material such as wood, paper, textile, cellulose board, comprises surfactant, inorganic salt, organic acid and water

Antiestáticos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2022035864A;	(SEKI) SEKISUI SEIKEI CO LTD	Antistatic molded article used as container for food product, industrial chemicals, and precision instrument, comprises high-density polyethylene resin having melt flow rate less than preset value and antistatic agent, in specified weight ratio, and has preset surface resistivity value
JP7025581BB1;	(NIGA) NGK INSULATORS LTD	Ion-conductive fine particles used for manufacturing electrolyte membrane, comprise substrate particles, ion-conductive group supported on surface of substrate particles and responsible for ion conductivity, silane monomer and silane oligomer in preset content ratio

Autorreparador

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2022153422	(GOOR) GOODRICH CORP	Self-healing fabric for inflatable of evacuation system, has exterior thermoplastic polymeric layer that is formed over second side of fabric layer, and second side is opposite to first side, and includes second healing agent
KR102405784	(INTE-N) INTERCONIX CO LTD	Protective film used for foldable display, consists of base film layer containing aliphatic difunctional acrylate oligomer, 2-phenoxyethyl acrylate and 1-hydroxycyclohexyl phenyl ketone, and has preset thickness, surface coating layer, protective film layer, adhesive layer, and release film layer
KR20220067109	(UYKY) UNIV KYUNGHEE IND COOP	Self-healing porous nanocapsule comprises core comprising antimicrobial agent, ligand brush formed on portion of surface of core, and antibacterial agent released under specific humidity and pH

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
KR20220050721	(DMTS-N) DMT SOLUTION CO LTD	Protective film useful E.G. for protecting glass substrates for mobile phones, comprises self-healing coating layer, base film, adhesive layer, and release layer sequentially stacked from top
JP2022037479	(ASAE) ADEKA CORP	New disulfanyl piperidine compound for composition used for forming cured material, self-healing material, surface coating agent, coating, adhesive, and battery material

Nanocomposite

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
PT116744	(THOR-N) THORN ASSETS LTDA	Method for dispersion of graphene, graphene oxide, graphite and/or other nanocomposites in polymers used in manufacture of E.G. food packaging, involves providing each end of electrical cable with energy-conducting plate, for creating electric field of alternating current inside cylinder
KR20220063904	(NEWG-N) NEW GRAPHENE WORLD CO LTD	Graphene flakes comprises slurry mixed with purified graphite and deionized water under high temperature and high pressure is manufactured through multiple compression-explosion processes
US2022126075	(DAEG) DAEGU GYEONGBUK INST SCI & TECHNOLOGY	Method for manufacturing a micro robot controlling drug release by a sound wave applied from outside, involves mixing and storing magnetic nanoparticles and drug in biodegradable resist that forming the microrobot
TWI750831	(QUAN-N) QUANN CHENG INT CO LTD	Manufacture of antibacterial copper nanofiber injection involves mixing dry copper nanopowder with specified particle size into fiber raw material, kneading and granulating, heating, extruding and cutting, and melting
US2021324256	(SAOI) ARAMCO SERVICES CO (SAOI) SAUDI ARABIAN OIL CO (UYAL-N) UNIV ALFAISAL	Preparing polymer-sand nanocomposite comprises applying surface polymerization to surface of sand particles by combining polymerization initiator dissolved in solvent with the sand particles to form precursor sand mixture
US2022099186	(UYCG) UCHICAGO ARGONNE LLC	Method for forming a graphene- embedded seal, involves mixing graphene and alcohol forming graphene alcohol solution, cold pressing polymer powder to form pressed seal powder, and exposing pressed seal powder to graphene alcohol solution

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2020109054	(WOOT-N) WOOTZ LLC	Manufacturing carbon nanotube product by blending unaligned carbon nanotube material, activating nanotube solvent, producing nanotube dope solution, forming carbon nanotube proto-product, and forming aligned carbon nanotube product
EP3960703	(STEF-N) INST STEFAN JOSEF	Synthesis of metal oxide nanoparticles used in sensors, involves preparing dispersion from metal oxide macropowder in liquid, nebulising to form aerosol, supplying aerosol and interacting with plasma generated on dielectric tubular mixing section and depositing on substrate

VOLVER A
CONTENIDO

NOTICIAS

PUBLICACIÓN DEL INFORME "LA OEPM EN CIFRAS 2021"



La Oficina Española de Patentes y Marcas, O.A. (OEPM) ha hecho públicos los datos y cifras de patentes, modelos de utilidad, marcas, nombres comerciales, diseños e Informes Tecnológicos de Patentes (ITP), relativos al año 2021, en su informe anual denominado "La OEPM en cifras".

Las fuentes utilizadas para la elaboración del folleto corresponden a las Bases de Datos de la OEPM, así como de la Oficina Europea de Patentes (OEP), la Organización Mundial de la Propiedad Intelectual (OMPI) y la Oficina de Propiedad Intelectual de la Unión Europea (EUIPO).

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[La OEPM en cifras 2021](#)

ELENA GARCÍA ARMADA, PREMIO POPULAR AL INVENTOR EUROPEO 2022

El pasado 21 de junio de 2022, la Oficina Europea de Patentes (EPO) dio a conocer los ganadores de la decimosexta edición de los Premios al Inventor Europeo, galardones que cada año concede a personas destacadas en Europa y fuera de ella que, con sus innovaciones, contribuyen al desarrollo tecnológico, al crecimiento económico y a la mejora de la sociedad.

La investigadora del Consejo Superior de Investigaciones Científicas (CSIC), Elena García Armada, recibió el Premio Popular al Inventor Europeo 2022 por su pionero exoesqueleto adaptable. El exoesqueleto permite caminar a los niños en silla de ruedas durante las sesiones de rehabilitación y reduce la degradación muscular y las complicaciones médicas. La investigadora del CSIC recibe así uno de los reconocimientos internacionales más relevantes en el ámbito de la innovación.



[Más información](#)

[Premios al Inventor Europeo](#)

I EDICIÓN DE LOS PREMIOS A LA MEJOR INVENCIÓN PROTEGIDA POR PROPIEDAD INDUSTRIAL

El pasado 1 de junio se celebró la gala de entrega de galardones de la Primera Edición de los Premios a la Mejor Invención Protegida por Propiedad Industrial, convocada por la Oficina Española de Patentes y Marcas, O.A. (OEPM), en los jardines de la sede madrileña de la Escuela de Organización Industrial (EOI).



El acto fue presidido por la Sra. Ministra de Industria, Comercio y Turismo, Reyes Maroto Illera, acompañada del Subsecretario del Ministerio y Presidente de la OEPM, Pablo Garde Lobo. Ambos destacaron la importancia de la Propiedad Industrial como activos intangibles, y el compromiso del gobierno por la innovación.

El objetivo de estos premios es distinguir la protección de resultados de investigación mediante Patentes y Modelos de Utilidad concedidos en el año 2020 por la OEPM, reconociendo así públicamente el valor de la

I+D española protegida y posicionada competitivamente en el mercado. Con todo ello, el fin último perseguido no es otro que el de apoyar y fomentar la actividad investigadora, científica y tecnológica y premiar el carácter innovador de nuestros inventores como motor del desarrollo tecnológico de nuestra sociedad.

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