

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 ésta aparece recogida en el boletín de Vigilancia Tecnológica 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 19.535 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
ES2930557	(UYPO-N) UNIV POLITECNICA CARTAGENA	Water-based active coating composition structure for sheets of cellulosic material, has emulsifier for obtaining total composition of cellulosic material, where halloysite nanotubes are connected to emulsifier
JP2023028457	(STAR-N) STAR PLASTIC KOGYO KK	Packaging film used in package E.G. folded bag, three-sided sealed bag, four-sided sealed bag, gusset bag, and stand bag, comprises barrier material, and adhesive layer comprising base polymer, epoxy component and curing agent, located on surface of barrier material

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2017190482	(SMIT-I) SMITH C A (SMIT-I) SMITH W T	Container for use as entomological storage display for displaying E.G. cannabis, has lid fitted on perimetrical ridge of container body forming chamber, where plug forms airtight seal between plug and lid completely sealing chamber
WO2023026613	(MITA) MITSUI CHEM INC	Aqueous polyurethane composition used in heat-resistant coating agent, first laminate for bag, second laminate, which are used as packaging materials for various industrial products such as sweets, foods, daily necessities, medicines, and papers, comprises polyurethane resin and inorganic particles
FR3125457	(ROVI-N) ROVIP	Injection mold for wrapper and dispenser assembly, has injection point for filling temporary space with plastic material before complete filling of plastic material of volume for molding walls of cap
EP4119457	(TETR) TETRA LAVAL HOLDINGS & FINANCE SA	Package for holding E.G. pourable food product, has shoulder comprising flap sections that are formed from multilayer packaging material, extend from sidewall and are folded towards each other in direction towards neck
US2022400744	(NIVE) NICOVENTURES TRADING LTD (GERA-I) GERARDI A R	Pouched product comprises outer water-permeable pouch defining cavity and composition configured for oral use situated within cavity, where composition is at least partially dissolvable, composition comprises one or more dissolvable fillers, humectant, at least one active ingredient, flavorant
BR102020026050	(UYPA-N) UNIV FUNDACAO FEDERAL PAMPA	Biopolymer-based film used for intelligent and active potential packaging for foodstuff, comprises formulation of carrageenan and natural additive from jaboticaba fruit processing residues

Construcción Tejados

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE202021106049	(LEMP-N) LEMP GMBH & CO KG	System for roof drainage of buildings, has cover element that is adapted to outer design of downpipe and/or channel in terms of material, structure and/or color design or with matches respectively
DE102022002796	(SEIL-N) SEILKONZEIPT GMBH & CO KG	Suspended scaffolding to be attached to roof of building, has trusses which are provided with walkable coverings through which working platform is formed, and carried on side facing away from roof by supports which are anchored to building at other end
KR20230036860	(KIMJ-I) KIM J H	Patterned roof tile for use at ends of eaves of wooden buildings, has roof tiles and black roof that are made of glass, where glass craft traditional tiles and roof tiles are integrally formed with stained glass manufacturing technique
US2023085227	(WENX-I) WEN X (XULL-I) XU L	Expandable modular tent system, has two interconnecting tent modules provided with side panels and formed with first interconnecting section that is removably interconnected with second interconnecting section, and top cover attachable to side panels to form roof cover for tent modules
US2021293026	(BMAT) BMIC LLC (BMAT) BUILDING MATERIALS INVESTMENT CORP (BMIC-N) BMIC LLC	Roofing system for attaching fabric substrate to roof deck or substrate to receive subsequent liquid applied roof coating, has fabric that is captured and held against roof deck by first and second elements
FR3126643	(PARP-N) SOC PARIS PROD & MATERIAUX	Method for sealing surface E.G. outer wall of roof, involves allowing passage of polymeric resin through veil to encompass hooks of self-gripping web and forming connection between hooks of self-gripping web and polymer resin
US2023056407	(SERE-I) SEREENEN B T	Portable and foldable yurt for outdoor activities, comprises lattice roof, lattice wall, door structure, dome, inner tension band, cover and floor, where body of yurt is made of lightweight woods or lightweight materials such as aluminum, beryllium, titanium or magnesium alloys, or polymer tarpaulin
DE102021121559	(BMIH-N) BMI GROUP HOLDINGS UK LTD (BMIM-N) BMI GROUP MANAGEMENT UK LTD	Roofing underlay used as multilayer laminate, has barrier layers having water vapor permeability and liquid water tightness, and has preset age stability of density
WO2023277830	(TRIF-I) TRIFI K	Part for roofing for industrial or agricultural use composed of plastic cover and grating assembled together by different connection systems (interlocking, tenon mortise, gutter or any other type of connection)

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2022416715	(ARKA-N) ARKA ENERGY INC	System for mounting E.G. solar panel tiles, over surface in E.G. roof of private homes, has set of bolting elements and set of overhang elements removably coupled to two opposite sides of tiles to form tile assemblies, where row of tile assemblies is mounted over two adjacent mounting frames

Construcción Conducciones

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2023040728	(KUBO-N) KUBOTA-CHEMIX CO LTD	Fire spread prevention device for synthetic resin pipe inserted into through hole formed in floor slab of building, has connection portion connected to cylindrical portion fixedly provided in through hole
ES1295703	(PORR-I) GOMEZ PORRAS F	Pool waterfall kit, has pool including suction pump with water inlet pipe and water return pipe to pool, where support casing is capable of being arranged on edge of pool
EP4151587	(UNIT-N) UNITO SMART TECHNOLOGIES LTD	Mixing device for mixing two different types of liquids of different ingredients in a mixing tap system in a kitchen, has two inlets for receiving liquids, where each of inlets is connected to conduit that is separated from other conduits
US2021040721	(MLWI-N) MLW INVESTMENTS LLC	Modular adjustable linear shower drain system used in installation site E.G. shower, has grill nested in receiving portion of drain interface adapter and trough, and is adjusted in height relative to drain interface adapter and trough
DE102021210148	(LECH-N) LECHNER GMBH D	Wall fitting for use in sink unit of fitted kitchen, has connection hoses that are connected directly to angle valves of domestic water installation, and surface-mounted wall mountable mounting plate to which discharge pipe is attached
JP2023025744	(FUNEN-N) FUNEN ACROSS CORP	Connector for use in drainage system of structure E.G. building, has second covering portion that is held in cylindrical portion of inner pipe by interposing elastic annular material between above and lower extension portions
US2023045768	(RNSS) RENSSLAER POLYTECHNIC INST (BORC-I) BORCA-TASCIUC T (HWAN-I) HWANG Y (TSAM-I) TSAMIS A	Hydronic system for use in hydronic network for heating and cooling rooms of building, such as residential building, has first conduit embedded in first side of partition, with valve and pump to control flow of fluid inside two conduits

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023282969	(LUCC-I) LUCCIA P	Sealing apparatus for sealing E.G. pipe, has flat sheet whose front side comprises retention site placed at center portion and configured to receive one of pipe or vessel, when pipe is inserted through center portion of flat sheet

Construcción Muros

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
FR3127238	(GRAN-I) GRANGEON H (GRAN-I) GRANGEON P	Device for aiding installation of semi-rigid insulating panels, or aiding passage of E.G. accessories through insulating panel, has elongated element connected to piercing element made of steel and equipped with insertion end for piercing
BR202021014888	(COST-I) COSTA M N J	Cold chamber for thermal insulation, has male and female-type joint system that is provided at longitudinal edges, and allows one panel to be engaged through protrusion at one longitudinal edge, where recess is provided at other end
NL2028919	(NOOI-N) NOOIJENS BEHEER BV S	Method for monitoring process of installing insulating material, involves sending measured air pressure, flow rate and supply values to CPU for storage with corresponding timestamps as well as making available stored values and timestamps
ES1296950	(LINI-I) DUARTE LINIO J A (MOLI-I) SALA MOLINA J	Rigid panel E.G. insulating natural stone panel, has body formed by mixing grout of extruded and reinforced polypropylene at high pressure with binder, where polypropylene is of specific weight percentage of body
WO2023030813	(COMP) SAINT-GOBAIN GLASS FRANCE	Tandhalter for insulating glass unit, has metallic reinforcing elements bent in area of terminal wall sections with bending angle of specific range, where elements are not in contact with each other and are made in one piece
WO2023025634	(COMP) SAINT-GOBAIN GLASS FRANCE	Spacer for insulating glass units, has first barrier layer and second barrier layer each having thickness of at most 15 nm, where thickness of first layer is larger than thickness of second layer
JP2023023125	(NIAQ-N) NIPPON AQUA CO LTD	Heat insulation structure used for low-temperature warehouses E.G. cold storage warehouses and freezer warehouses, has heat insulating layer contains polyisocyanate compound, ester polyol compound, trimerization catalyst, and acrylic surface conditioner, and not containing silicone foam stabilizer

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
ES1295524	(SANT-I) JUAN SANTANA F (MANZ-I) MOYANO MANZANO M C	Composition used for passive house panel used as acoustic and thermal insulator for construction of specific type of building, comprises recycled cotton paper from recycled legal tender bills, laminated plaster, water and binding resin
EP4124715	(ALPA-N) ALPAC SRL	Frame structure for finishing and equipping opening of outer wall of building, has pair of lateral elongated elements comprising mat made of thermally insulating material and reinforcement panel integral with mat
DE102021118547	(VAQT-N) VA-Q-TEC AG	Vacuum insulation structure encased in vacuum-tight manner with high-barrier film, has open-pored, pressure-resistant core, where one of surface sections of high-barrier film lying next to one another in area of a sealing seam is made of cycloolefin copolymer
EP4108631	(NIKO-N) NIPPON KORNMEYER CARBON GROUP GMBH	Production of carbon or graphite foam component used as insulating material, involves filling container with dry foamable starch, heating partially starch filled container to foam starch, and detaching carbon foam after cooling and portioning into carbon foam portions
ES1295764	(GONZ-I) CALDERON GONZALES F	Insulating sandwich panel, has outer face located to recess such that extension of outer face of panel is superimposed on recess of adjacent panel, and screws directly fixed to wall from anchor
ES1295752	(BARN-I) MARQUE BARNETO J	Front panel for closing and insulating blind boxes, has plate, mechanical reinforcement, insulation plate, bearing support, and support pointer connected together, where plate is formed by rigid and flat body
FR3125073	(COMP) ISOVER SAINT-GOBAIN	Insulating or prefabricated panel for wall, has retention unit for maintaining insulation material in panel and preventing insulation material from collapsing, where retention unit provided with studs extending from bottom part of board
US2019257140	(KATT-N) KATTMANN ELIAS LLC	Dynamic multi-pane assembly E.G. multi-pane insulating glass units for thermal resistant system in windows and doors, has source of pressurized gas communicated with first and second pressurized gaps, where gas is pressurized at set level
DE102021122745	(PINT-N) PINTA SEALING GMBH	Method for activating sealing tape impregnated for delayed resetting in sealing tape receptacle used in building joint of component E.G. window, involves separately acting sealing tape after introducing into receptacle to trigger or support resetting and applying liquid agent to sealing tape
WO2023025436	(REHA-N) REHAU IND SE & CO KG	Production method of polymer, E.G. thermoplastic window or door hollow chamber profile, involves producing two separate core profiles by extrusion production process and jointly covering by outer coating to produce chamber profile

Construcción Ventanas

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2023077008	(VIEW) VIEW INC	Framing system for use in vision area of E.G. tintable window, to visualize E.G. optical media, in building, has support system coupled to transparent display construct and coupled to first side of framing system, and electrochromic layer arranged between transparent conductive layers
GB2610583	(TRUF-N) TRUFRAME LTD	Profile joint I.E. welded mitre joint, with rebate portion gap for connecting profile sections I.E. PVC-U profile sections, used in sash window or doors, has profile sections for containing first and second opposed exterior surfaces and interconnecting matrix
EP4144947	(DECE-N) DECEUNINCK NV	Composite profile for creating mitre joints for assembling E.G. window frames, has polymeric core and side profile to be provided on external surface of core profile, where side profile is repositioned over distance along height-direction
WO2023012202	(MERE) MERCK PATENT GMBH	Window element used E.G. in window of building/vehicle, comprises multilayer arrangement of first and second switchable layers containing liquid-crystalline medium of dichroic dye and optionally chiral compound for regulating light passage
EP4112863	(PROF-N) PROFINE GMBH	Composite profile for window or door, has plastic base profile that is provided with multiple plastic portion profiles, and plastic portion profiles are firmly connected to one another by locking functions through facing inner and outer metal profiles
US2019242177	(WILL-N) WILLIAM-MACRAE & CO	Door jamb composite trim molding assembly for use in interior woodwork for E.G. commercial housings, has rough, unfinished core arranged within composite outer shell for one of strengthening or stiffening composite outer shell

Automoción

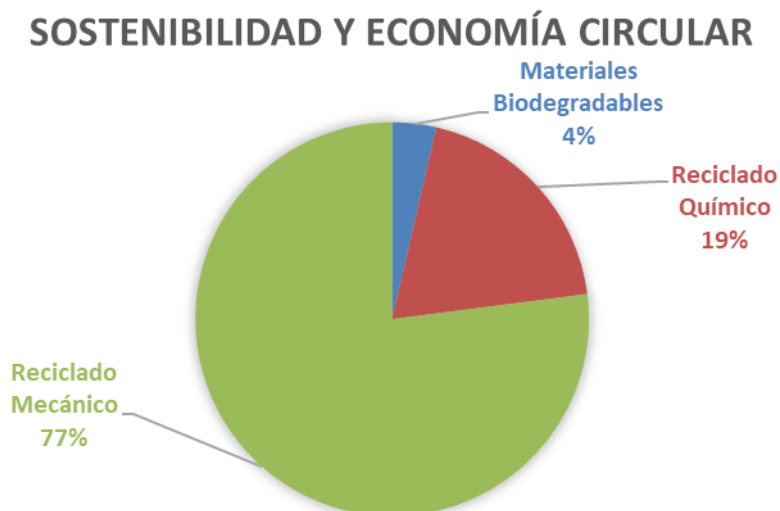
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023022785	(UYFL) UNIV CENT FLORIDA RES FOUND INC	Method for making energy storing carbon fiber reinforced polymer composite, comprises depositing cathode material patches at spaced locations on first cross-weaved carbon fiber mat to form first cathode
CN218577648	(KGFA) KINGFA SCI & TECH CO LTD (JIAN-N) JIANGSU KINGFA TECHNOLOGY NEW MATERIAL (SHAN-N) SHANGHAI KINGFA SCI & TECH DVPT CO LTD	Lightweight screen bracket for automobile, has screen control electronic unit mounting point arranged at longitudinal cross point of longitudinal and transverse reinforcing ribs
DE102021123332	(PORS) PORSCHE AG F	Protection system for component group I.E. battery of vehicle with position sensor detection, has evaluation unit that is coupled to receivers by wirelessly and is set up to determine their positions relative to transmitters on basis of electromagnetic signals
WO2023031458	(FORD) FORD GLOBAL TECHNOLOGIES LLC (FORD) FORD-WERKE GMBH	Housing for vibration unit arranged on seat cushion of vehicle seat for simultaneous generation of vibration signal and acoustic signal, has completely rounded and at least one housing opening which is permeable to sound waves
GB2610394	(HAYD-N) HAYDALE COMPOSITE SOLUTIONS LTD (HAYD-N) HAYDALE COMPOSITES SOLUTIONS LTD (HAYD-N) HAYDALE GRAPHENE IND PLC	Shoe sole used in performance footwear, comprises rubber matrix material comprising butadiene rubber, and carbon nanoparticles comprising functionalised carbon nanoparticles, where rubber matrix material includes butadiene rubber, and carbon nanoparticles includes functionalised carbon nanoparticles
DE102021209563	(VOLS) VOLKSWAGEN AG	Structural component of motor vehicle, has friction-welding element with shank and head penetrating reinforcing element in such way that shank is connected to reinforcing element by friction welding at connecting end opposite head
FR3126338	(COMP) SAINT-GOBAIN GLASS FRANCE	Glazed assembly used for vehicle, comprises glazing having outer surface formed by glass sheet, and vibro-acoustic damping device comprising viscoelastic damping layer made of material comprising acrylic polymer(s), tackifying agent(s), and plasticizing agent(s), and constraint layer
US2023068380	(HALL-N) HALL LOGIC INC	Weight distribution hitch system for connecting vehicle and trailer, has moment bar forward end that is attached to lower portion of rearward end of vehicle attachment unit so as to prevent rotation about horizontal axis
JP2023024298	(SUMR) SUMITOMO RUBBER IND LTD	Tire used for passenger cars, comprises tread portion, sidewall portion, and rubber composition comprising tread rubber comprising thermoplastic elastomer with respect rubber component

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2023057570	(BRIG-N) BRIGGS & RILEY TRAVELWARE LLC	Shock absorber component for luggage wheel of wheel assembly of wheeled luggage, has openings placed between outer circumference and center hole and configured to deform to absorb shock when circular unit is subjected to force along axis
DE102021208304	(VOLS) VOLKSWAGEN AG	Motor vehicle wheel suspension for rear axles of passenger cars and light commercial vehicles, has actuator that acts on one of fastening devices in order to introduce torque about axis of rotation of relevant fastening device
DE102021119547	(WBAI) WEBASTO SE	Device for operating screen arrangement for vehicle roof, has fixing unit that is set up to move away from cross element when display is unwound when display is wound up to be moved towards cross element and to tension display in cooperation with display shaft
US2023002077	(CLAR-I) CLARK M W	Grounding disk for creating multiple connections on grounding point in single airport hangar, has connecting grounding point positioned below top surface of grounding disk, where top surface of grounding disk is tapered from center of top surface to peripheral edge of top surface
EP4112427	(RHEM) RHEINMETALL LANDSYSTEME GMBH	Chain roller for military tracked vehicle E.G. armored personnel carrier, has roller body made from fiber-reinforced plastic material, and cooling device for cooling roller bandage during operation of chain roller

VOLVER A
CONTENIDO

SOSTENIBILIDAD Y ECONOMÍA CIRCULAR

En el siguiente gráfico se muestra la distribución de las 13.85 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
JP2023039831	(KYO) KYODO PRINTING CO LTD	Biodegradable resin composition used for biodegradable molding including application of materials for agricultural, forestry and fishery materials, comprises biodegradable resin and polysaccharide and polysaccharide gels or is insoluble when dissolved in water at specific concentration
FR3126987	(BERN-I) BERNE LAS C	Rapidly biodegradable bioplastic used as single-use bags comprises cellulose from biomass comprising grasses and non-woody green waste, plasticizer of natural origin E.G. glycerine and matrix of natural origin E.G. starches

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023037710	(KANF) KANEKA CORP	Manufacture of polyhydroxyalkanoic acid used in E.G. agricultural applications, involves preparing aqueous suspension containing polyhydroxyalkanoic acid, alkylene oxide-based dispersant and compound having several carboxyl groups and/or phosphoric acid group, and drying
WO2023013133	(SONY) SONY GROUP CORP	Copper clad laminate used for forming printed wiring board, comprises resin substrate containing polylactic acid having preset crystallinity measured by differential scanning calorimetry, and crystallite size measured by X-ray diffraction measurement, adhesive layer and copper foil layer
WO2023001872	(CARB-N) CARBIOLICE	Preparation of masterbatch for producing plastic articles, involves separating and introducing liquid enzyme formulation, polysaccharide and carrier polymer, mixing at temperature at which support polymer is partially or totally molten, and recovering masterbatch
WO2023008381	(SUMO) SUMITOMO CHEM CO LTD (NEWL-N) NEWLIGHT TECHNOLOGIES INC	Composition used as resin material including fiber materials, exterior structural members, furniture and interior decoration members, home appliance members, gardening members, toy members, and automobile members, comprises olefinic polymer, and polymer(s)
US2023001044	(COHE-N) COHESYS INC	Stabilizing bone fragments in body involves forming first anchor on first bone fragment by heating adhesive composition to form softened adhesive composition and contacting softened adhesive composition to first bone, permitting softened adhesive composition, and forming second anchor on second bone

Reciclado Mecánico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
ES2933394	(PICO-I) GUILLEM PICO I	Method for recirculation of non-hygroscopic polymers from rigid food or industrial post-consumer plastic containers, involves feeding with non-hygroscopic rigid plastic containers, shredding at low speed using ripper with four axes, without generating high temperatures
ES2932873	(CORE-N) CORE SERVICIOS INFORMATICOS SL	Process for recycling toner cartridges in E.G. printers, involves grinding cartridges, carrying out separation and screening, deriving largest fraction, discarding minor fraction and carrying out dust aspiration stages

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023021145	(CVST) COVESTRO DEUT AG	Pyrolysis of polymeric compound in the form of foam, involves adding pyrolysis material comprising polymeric compound containing polyurethane structural unit, decomposing polymeric compound of pyrolysis material in reactor, cooling discharged pyrolysate, and processing pyrolysis product
WO2023044077	(YICH-N) YI CHUN GREEN TECHNOLOGY CO LTD (SHEN-I) SHEN J	Absorptive article quick decomposition system for decomposing, purifying and recycling waste water from organic pollutants carried by absorptive article, has fluff fiber raw material manufacturing module connected with processing module
JP2023033751	(DAKO) DAIICHI HIGH FREQUENCY CO LTD	Film peeling apparatus for peeling film of resin and rubber formed on inner surface of tubular element E.G. lining steel pipe, has peeling blade with C-shaped shape with slit extending in pipe axis direction
KR102510055	(PARK-I) PARK S C	Recycled raw material extrusion die for removing foreign substances contained in recycled raw material, comprises a body element that is provided with a pair of screen holes and a bracket element is installed on the surface of the body element
ES1296864	(BARR-I) RODRIGUEZ BARREIRO C (PERE-I) SAINZ PEREZ J V	Urban furniture entirely made of recyclable plastic with joints or joint luminescent inserted in surface created from profiles or irregular pieces of recyclable plastic through extrusion and mixing process, used in E.G. benches, and tables
WO2023026081	(SMAR-N) SMARTLAB POLYMERS SIA	Devulcanizing vulcanized rubber or decrosslinking crosslinked polyolefins, comprises E.G. supplying vulcanized rubber or crosslinked polyolefins to atmospheric extruder and sonicating
WO2023026306	(SHAS-I) SHASTRY R	Apparatus used to recycle lithium cobalt oxide (LCO) batteries in dry form, has control unit enables recycling process for LCO batteries using fine fraction package from sifter unit and segregated second coarse fraction from air classifier
EP4140680	(BERT-N) GRUPPO BERTOLASO SPA	Extractor machine for removing metering valve from E.G. oil bottle, has extraction head provided with movement unit for moving jaw between closed configuration and open configuration in which gripping portions are moved away from each other
JP2023025463	(DAOS) DAIO PAPER CORP	System for sorting waste plastic from E.G. waste household electric appliance, has second sorting unit that selects waste plastic pieces to which surface treatment is performed based on determination result of second discrimination unit

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023012614	(FERR-N) FERRAM RECYCLING SRL	Recovery of raw material from waste products, E.G. end-of-life tires, involves pre-treatment of skin to be treated to separate harmonic steel fraction from non-ferrous fraction, and heat treatment of pre-treated skin
EP4129604	(ALLS-N) ALL SUN (TECH-N) TECHNI-TERRE	Method for crushing and recycling used big-bags made up of continuous inner bag in polyethylene and outer woven envelope in polypropylene, involves compacting big bag(s), and grinding compacted big-bag(s) at grinding unit
EP4129605	(INDA-N) INDAVER PLASTICS RECYCLING NV	Method for sorting mixed plastic packaging waste E.G. beverage carton, involves sorting mixed plastics packaging waste by size into number of size fractions, and sorting sorted waste into different size fractions
WO2023002432	(WHIT-N) WHITE STAR SRL	Mechanical system for separating recyclable casing of capsules and/or pods from compostable organic material contained in casing, comprises motorized separation unit comprising containment compartment containing perforated basket
WO2023285891	(WIJE-I) WIJESINGHE A S	Method for manufacturing of waste textile fiber reinforced polymer composite material, involves blending cleaned, crushed and grind fabric waste particles with crushed, recycled and/or virgin polypropylene or high impact polystyrene
FR3125244	(SOPR-N) SOPREMA	Heating mixer for treatment of composite products based on thermoplastic material E.G. waste from factories or construction sites, has element that is configured for controlling flow of output including flap valve or pivoting flap
WO2022271022	(GPBO-N) GPBO IP BV	Mobile installation for processing waste plastic materials into processed plastic end item, has melting unit for melting stream of plastic flakes, and processing unit for processing molten stream of plastics flakes in plastic end items
EP4104994	(REPS-N) REPSOL SA	Method for sorting flexible polyurethane foams from mattresses, involves obtaining mid-infrared spectrum of each calibration sample, and determining molecular weight of polyol in each of calibration samples

Reciclado Químico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023038267	(GLDS) LG CHEM LTD	Monomer composition used for synthesizing recycled plastics for molded product E.G. automobile parts and communication products, comprises aromatic diol compound, where diethyl carbonate is obtained as by-product and monomer composition is recovered from polycarbonate-based resin
WO2023042611	(ONEW-N) ONE WORLD JAPAN CO (ONEW-N) ONE WORLD JAPAN INC	Carbonization oil conversion processing apparatus for carbonization of food waste has container, tubular oil carbonization furnace, and driving motor is installed below transport passage at portion serving as inlet or outlet of end shutters and partition shutters
WO2023033598	(GLDS) LG CHEM LTD	Screening method of solvent used for extracting acrylonitrile butadiene styrene copolymer, involves screening solvent from waste containing acrylonitrile butadiene styrene copolymer calculated from mixing energy between acrylonitrile butadiene styrene copolymer and solvent
WO2023037943	(MITU) MITSUBISHI CHEM CORP (MITU) SHINRYO CORP	Manufacture of regenerated carbon fiber used as reinforcement material for fiber reinforced plastic, involves sandwiching article-to-be-treated comprising carbon fiber assembly between air-permeable sheets, and performing heat treatment in oxidizing atmosphere
FR3126981	(MICL) CIE GEN ETAB MICHELIN & CIE	Purifying feed resulting from depolymerizing styrenic compounds comprises using distillation column with charge from purification process fed at bottom of column and separating stream rich in styrene into at least one stream
WO2023032494	(HITA) HITACHI LTD	Decomposition of halogen-containing organic substance E.G. halogen-containing waste plastic, involves contacting oxide semiconductor compound and compound of element that reacts with halogen contained in organic substance, with substance, and heating and decomposing in oxygen-containing atmosphere
WO2023032240	(AGRI-N) AGRI CULTURE KARUIZAWA CO LTD (WATA-N) WATAYA SEISAKUSHO CO LTD	Device for waste-plastic oil conversion, has primary decomposition tank that dissolves waste plastic, and secondary decomposition tank that heats liquid component, and produces low-boiling-point decomposition gas, where melting tank allows introduction of cracked gas or low boiling point cracked gas

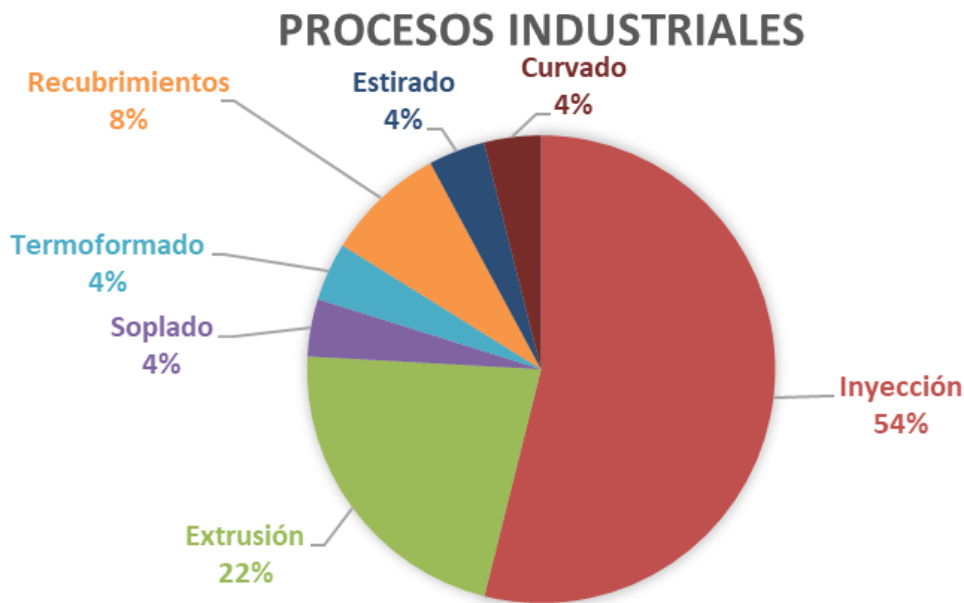
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023009398	(PACT-N) PACT FUEL LLC	Processing plastic waste used to make fuels, comprises E.G. volatilizing light organics from plastic waste in pre-conditioning chamber and directing resultants to first, second and third pyrolysis chambers to form pyrogas comprising alkanes
KR20230015041	(UYKR) UNIV KOREA RES & BUSINESS FOUND	New enzyme complex comprising E.G. fusion protein 1 in which PETase and dockerin module are combined and fusion protein 2 having lipase and dockerin module, useful to degrade polyethylene terephthalate for decomposing waste plastic
US2023022441	(AKUL-I) AKULA K C (DAND-I) DANDAMUDI K P R (DENG-I) DENG S (LIUY-I) LIU Y	Depolymerizing polyethylene-based plastic involves combining polyethylene-based plastic with solvent in a reactor to generate plastic solvent mixture, and then heating plastic solvent mixture in reactor and fractionating the plastic solvent mixture into gas phase product
FR3125731	(CNRS) CENT NAT RECH SCI (ECOL-N) ECOLE NAT SUPERIEURE CHIM PARIS (PARS-N) PARIS SCI & LETTRES	Extraction and separation of component of LED such as organic light-emitting diode, involves partial depolymerizing layer comprising polydimethylsiloxane using solvent and fluorine salt, separating phosphor and LED, and separating acid solution comprising metal and LED
WO2023002306	(MIPT) POLITECNICO DI MILANO (WHIL-N) WHILE TRUE SRL	Depolymerizing polyethylene terephthalate contained in dimethyl terephthalate fiber and relative re-polymerization to polyethylene terephthalate involves depolymerizing polyethylene terephthalate to bishydroxyethylene terephthalate, and recovering bishydroxyethylene terephthalate
US2023024065	(INHA-N) INHANCE TECHNOLOGIES LLC	Improving quality of products made with recycled plastics, involves providing plastic article, providing fluorination gas in chamber to expose plastic article to fluorination gas, withdrawing fluorination gas and withdrawing treated plastic article from chamber
WO2023285545	(UANT) UNIV ANTWERPEN	Recycling polyurethane comprises performing alcoholysis reaction of polyurethane with first alcohol, separating carbamate from polyol, performing thermolysis reaction on carbamate and separating isocyanate from alcohol
WO2022265111	(MEPC) MITSUBISHI ENG-PLASTICS CORP (NIIT) NAT INST ADVANCED IND SCI & TECHNOLOGY (TOPP) TOPPAN INC (TOYJ) TOSOH CORP (UBEI) UBE CORP (TOHO) UNIV TOHOKU (KEIW-N) KEIWA KOGYO CO LTD (TOHZ-N) TOHZAI CHEM IND CO LTD (TOPP-N) TOPPAN INC	Separation and recovery device is device for continuously separating and recovering hydrolyzable component of hydrolyzable polymer and non-hydrolyzable polymer, which has crushing unit that crushes resin mixture, melting and discharging unit, and hydrothermal reaction processing unit

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102021114871	(GRUE-N) GRUENE PUNKT-DUALES SYSTEM DEUT GES ABFA	Recovery of consumer plastic packaging waste made from polyolefin, used as substitute of primary fuel, involves sorting waste to obtain polyethylene and/or polypropylene fractions, feeding fractions to processing unit, and converting residual polyolefin fraction into pyrolysis oil or pyrolysis gas
WO2022263745	(POLY-N) POLYLOOP	Recycling polycarbonate-based composite waste comprises supplying composite waste in form of pieces, dissolution of pieces in 1,3-dioxolane under inert atmosphere, separating mixture in recovery of insoluble fragments and precipitating
WO2022263336	(CVST) COVESTRO DEUT AG	Splitting polyurethane product, preferably polyurethane foam, comprises providing polyurethane product based on isocyanate component and polyol component, and reacting polyurethane product with monofunctional araliphatic alcohol
WO2022244881	(MICR-N) MICROWAVE CHEM CO LTD	Producing (meth)acrylic monomer by irradiating and mixing (meth)acrylic resin with microwaves to obtain melt containing component having lower microwave absorptivity than (meth)acrylic resin at depolymerization temperature, adding and mixing additional (meth)acrylic resin, irradiating and mixing
WO2022259142	(MIPT) POLITECNICO DI MILANO	Preparing polyesters and polyamides by partially depolymerizing polyester or polyamide, purification of products, recovering in form of solid mixture, and polymerizing solid mixture, where depolymerization is only partial and results in mixture of cyclic, aliphatic oligomers and starting polymer
WO2023007871	(UNCH) UNI-CHARM KK (SDPG-N) SDP GLOBAL CO LTD	Producing secondary dehydrated superabsorbent polymer by immersing constituent material comprising sanitary article containing pulp fibers and superabsorbent polymer in acid-containing aqueous solution, separating primarily dehydrated superabsorbent polymer, and dehydrating

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NUEVOS PROCESOS INDUSTRIALES

En el siguiente gráfico se muestra la distribución de las 12.615 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 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
WO2023043471	(PROC) IMFLUX INC	Method of manipulating control of operation of actuation unit of apparatus using remote controller, involves transmitting modified feedback signal to native controller of apparatus
DE102021123469	(VALO) FTE AUTOMOTIVE GMBH (RTDA-N) RTD AUTOMOTIVE GMBH	Method for manufacturing E.G. pump component, involves filling cavity on side portion of component, where sufficient sealing material is injected for portion of sealing material to pass material from cavity through overflow channel

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
ES1296424	(MART-I) GAMEZ MARTINEZ J L	Mold condition monitoring device, comprises programmable control unit connected to sensor, temperature sensor, humidity sensor, and pressure sensor
WO2023043862	(BARN-N) BARNES GROUP INC	Injection molding apparatus, has electrically powered actuator driving piston reciprocally within fluid drive cylinder according to drive program that instructs actuator to drive valve pin between gate closed and gate open positions
WO2023277151	(NASB) NISSEI ASB MACHINE CO LTD	Manufacturing apparatus of resin-made container, has temperature control unit to perform temperature control by dividing preforms housed in housing into third number of groups including second number of preforms which are respectively smaller than first number of preforms
WO2023041418	(OTTO-N) OTTO MAENNER GMBH (OTTO-N) OTTO MEN GMBH	Injection molding device, has injection mold provided with first mold half and second mold half, where first and second index elements are operatively connected to acceleration sensor to identify offset of index elements in spatial direction
US2023092818	(YUSH-N) YUSHIN PRECISION EQUIP CO LTD	Apparatus for taking out molded product, has display control section for displaying display screen at identification indications for multiple set operations set in operation sequence, set values for multiple set operations, and actual operations times stored in operation time storing section
FR3126916	(SFRA) SAFRAN AIRCRAFT ENGINES	Mold for use in manufacture of composite material gas turbine fan casing, has compacting wedge which bears against side flanges of mandrel and covers top of external flanges of casing to be manufactured
JP2023034971	(NIKL) JAPAN STEEL WORKS LTD	Method for adjusting molding condition parameter of molding machine E.G. injection molding machine, involves determining change timing of parameters, and sequentially changing parameters determined as object of change according to determined change timing
WO2023032402	(HITA) HITACHI LTD	System for estimating pressure-volume-temperature characteristic of calculation model, comprises processor and storage device connected, and for estimating resin material calculation models of PVT characteristics of resin materials
WO2023026347	(FUFA) FANUC CORP	Arithmetic unit of injection molding system, has determining unit that determines drive starting position of ejector rod at start of execution of projecting operation based on position of ejector rod when magnitude of load acquired during projecting operation exceeds threshold value

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023026318	(FUFA) FANUC CORP	Industrial machine E.G. injection molding machine for performing operation of one process, has display control unit that increases/decreases number of input fields displayed in display unit according to gesture operation detected by input operation detection unit
EP4140827	(SUMO) SUMITOMO CHEM CO LTD	Making thermoplastic elastomer composition used in injection molding by melt-kneading polypropylene and ethylene-based copolymer rubber in presence of organic peroxide, adding polypropylene and melt-kneading resulting mixture
WO2023022138	(POPL) POLYPLASTICS KK	Method for suppressing deterioration of strength of two-color molded article of polybutylene terephthalate resin and polycarbonate resin, used for automobile component, involves adding carbodiimide compound to polybutylene terephthalate resin
US2023079508	(ALLA) ALCON INC	Automated production line for production of ophthalmic lenses, such as soft contact lenses, comprises production line front end comprising first injection-molding machine arranged in production line and configured to concurrently produce scalable multiple of front curve plastic lens molds
WO2023017762	(TOYJ) TOSOH CORP	Metal member-polyarylene sulfide resin member composite for E.G. automobile, is injection-molded member of polyarylene sulfide resin composition comprising polyarylene sulfide resin, modified ethylene copolymer and glass fiber, which is integral injection molding of metal member and resin member
WO2023013375	(KOIT) KOITO MFG CO LTD	Method of manufacturing transparent resin cover for use as outer cover of lighting fixture unit E.G. headlight for vehicle, involves injecting molten transparent resin into cavity, curing transparent resin in cavity and forming transparent resin cover having metal wire
FR3125457	(ROVI-N) ROVIP	Injection mold for wrapper and dispenser assembly, has injection point for filling temporary space with plastic material before complete filling of plastic material of volume for molding walls of cap
WO2023003022	(NASB) NISSEI ASB MACHINE CO LTD	Apparatus for manufacturing resin-made container, has injection molding unit that performs N injection molding at time, and blow molding unit that divides N preforms into n portions and M portions of resin container from preform at one time
WO2022259972	(SHBU) SHIBAURA MACHINE CO LTD	Injection device used in molding machine, has injection cylinder connected to plunger for pushing molding material into mold, hydraulic device that supplies hydraulic fluid to cylinder, electric motor connected to piston, and control device for controlling hydraulic device and electric motor

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023277151	(NASB) NISSEI ASB MACHINE CO LTD	Manufacturing apparatus of resin-made container, has temperature control unit to perform temperature control by dividing preforms housed in housing into third number of groups including second number of preforms which are respectively smaller than first number of preforms

Extrusión

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022259784	(NIKL) JAPAN STEEL WORKS LTD	Test device for evaluating wear and corrosion resistance of metallic material of components e.g. screw or cylinder used in resin product extrusion device, consists of metal blocks which have surface area same as surface area of sample and formed from metal same as metal of sample
CA3143692	(ZUBE-N) ZUBEX IND SA DE CV	Production of metal-free 7-layer co-extruded bi-oriented film used for packaging, involves co-extruding tubular strip having preset dimension, cooling to obtain amorphous multilayer strip, heating, biaxially orienting in expansion bubble, and heating to stabilize it and eliminate thermal shrinkage
WO2023031912	(UBQM-N) UBQ MATERIALS LTD	Composite material used to reduce carbon emission and produce articles of manufacture comprises heterogenous organic matter comprising cellulose, synthetic polymers and inorganic matter and polyethylene terephthalate
WO2023031752	(LOHI-N) LOHIA CORP LTD	Apparatus for drying of polymeric film in automated tape extrusion line and extruded from extruder, has film that travels horizontally at height, and dried film passed to cutter unit in which dried film slit into tapes of desired width and made to enter into hot air oven for processing
WO2023026081	(SMAR-N) SMARTLAB POLYMERS SIA	Devulcanizing vulcanized rubber or decrosslinking crosslinked polyolefins, comprises E.G. supplying vulcanized rubber or crosslinked polyolefins to atmospheric extruder and sonicating
FR3125826	(AUTH-N) AUTHENTIC MATERIAL	Manufacturing leather-based sheet, comprises preparing paste by treating material containing leather prepared from skin of non-human animal in twin-screw extruder, and shaping sheet dough

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023006713	(CLEX-N) CLEXTRAL	System for continuous preparation of extruded food product, has envelope that is fixedly attached to sheath so that material leaving sheath is pushed by screw or screws through die
WO2023008993	(ULTI-N) ULTIMAKER BV	Device for cleaning extruder of fused filament fabrication system, has controller for controlling inspection unit to perform visual inspection of tip portion of filament after retraction of filament from extruder
US2023014793	(DUPO) LIQUI-BOX CORP	Recyclable, co-extruded multi-layer polymeric film for preparing flexible bags, comprises five layers of inner sealant layer comprising copolymer or ethylene/olefin interpolymer fraction density and/or thickness of total inner sealant layer, first, and second interposed layer comprising copolymer
WO2021077509	(ANHU-N) ANHUI SENTAI WOOD PLASTIC TECHNOLOGY CO (ANHU-N) ANHUI SENTAI WPC-TEC FLOORING CO LTD	Wood-textured foam floor includes foamed substrate formed of resin and having block structure, and hard surface layer integrally connected to foamed substrate and covering one surface, and hard surface layer includes first exposed surface
WO2023272382	(LUPK-I) LUPKE M A A (LUPK-I) LUPKE S A	Apparatus for mold block exchange on corrugator, has staging platforms that are aligned with respective return tracks and are adapted to support replacement mold blocks
WO2022262904	(GNEU-N) GNEUSS GMBH	Multi-way valve unit for plastic melts and other medium-to-high-viscosity fluids, has switching element designed in segments and arranged adjacent to intermediate plate and/or spacer element

Soplado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023041369	(BADI) BASF SE	Tubular casing used as packaging casing and sausage casing, comprises copolyamide produced by polymerizing lactam, and monomer mixture comprising 4-12C dicarboxylic acid and 1,5-diamino-3-oxapentane
WO2023041533	(ALPL) ALPLA WERKE ALWIN LEHNER GMBH & CO KG	Mold for producing stretch blow molded polyester bottle, has base projecting into interior of mold and formed on base part, where side wall of base is oriented parallel to vertical axis of mold

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102021123764	(SALZ) KHS GMBH (SALZ) KHS LTD	Device for producing container from preforms, has transfer device provided with holding element for holding container and preform, and transport device provided with separate drive device for moving transfer device between first transfer position and second transfer position
WO2023031450	(SALZ) KHS GMBH (SALZ) KHS LTD	Apparatus for producing preforms containing containers of thermoplastic material, has first preform stream and further stream downstream of first sorting device that are brought together in such way that form common stream entering heating device
DE102021122020	(SALZ) KHS GMBH (SALZ) KHS LTD	Device for producing containers from preforms made of thermoplastic material, has transfer unit having transfer arm to which gripping element is connected and which is mounted on transfer unit so that it can move without contact
WO2023007279	(TERE-N) TEREKAS UAB	Integrate pressure tightness testing system for testing tightness of E.G. bottles, has cold air supply unit for feeding cold air into cold air collector, and air receiver for storing compressed air intended for testing package tightness
WO2023007302	(SARO) SARONG SPA	Heating and welding mold for heating and welding zones of first sheet of thermoformable plastic material, has cavities into which block is inserted, in which each block is fixed to bottom of respective cavity
WO2023003041	(NASB) NISSEI ASB MACHINE CO LTD	Method for manufacturing resin container E.G. back-in-box for water server using blow molding machine, involves releasing container having neck sandwiched between core mold and transfer chuck from undercut portion by opening mold
CA3164865	(GAIP-N) GAIPRAST CO LTD (GAPL-N) GAPLAST GMBH	Method for manufacturing container, involves introducing pressure medium through holes into gap between inner bag and outer container, which detaches inner bag from wall of outer container
WO2023277875	(AMCO-N) AMCOR RIGID PACKAGING USA LLC	Polymeric container E.G. polyethylene terephthalate container, for packaging foods and beverages, has base moved inwards from as-blown configuration to post-vacuum configuration, where base includes pushup portion at axial center

Transformado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023027020	(ELED) DENKA CO LTD	Thermoplastic release film for semiconductor encapsulation process, has thermoplastic crystalline cyclic polyolefin which is provided with specific mass and specific mass of polyolefin thermoplastic elastomer
WO2023031780	(LUXO-N) LUXOTTICA SRL	Glasses frame comprises at least one portion of electronic device encapsulated inside at least one element of the glasses frame, in which the element of the frame is comprised of plasticized cellulose acetate mixture
FR3125978	(SFRA) SAFRAN	Method for manufacturing thin-walled acoustic component, involves forming molding cavities on mold corresponding to shape of hollow complex acoustic elements, and de-molding acoustic multi-element panel and arranging with acoustic elements
WO2023007035	(ARIZ-I) GARRALDA ARIZCUREN M V (CENT-I) NUNEZ CENTANO A	Device for molding plastic components, has spray holes configured to allow refrigerant liquid to escape from coolant liquid line, and drain configured to allow evacuation of coolant coming from coolant liquid line
WO2023006536	(SFRA) SAFRAN SEATS	Method for manufacturing E.G. backrest, of economy type airplane seat, involves positioning heating frame around stacked structure comprising core, and setting up structure stacked inside thermoforming mold equipped with cutting punches
WO2023286867	(GTEK-N) G-TEKT CORP	Press die used in press machine, has intermediate rib that is formed around front and rear surfaces and left and right surfaces of frame portion and that forms side recesses on top and bottom sides, where frame portion, processing surface portion, and rib are integrally formed
WO2023281217	(TEIN-N) CENT TECH IND PLASTURGIE & COMPOSITES	Method for making thermoplastic composites using system for shaping of textiles, involves heating upper and lower cavities of thermoregulated and thermally conductive mold by heat transfer fluid
EP4112272	(MOND-N) MONDINI SRL	Method for making container, involves positioning tray in thermoforming mold, where tray comprises bottom wall, lateral wall and annular flange that are constituted of single sheet of material, folded and shaped
JP2022191900	PANASONIC IP MAN CORP	Toilet bowl manufacturing method, toilet bowl body manufacturing device, and toilet bowl

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4105383	(SCAF-N) SCAFA THERMOFORMING GMBH	Method for producing shaped bodies from multi-ply paper, involves feeding paper layers arranged one on top of other, and pressing paper layers into shaped body corresponding to positive and negative molds by pressing tool

Recubrimientos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023041633	(PITT) PPG IND OHIO INC (WOER-N) WOERWAG LACK & FARBENFAB GMBH & CO KARL	System for applying coating film to surface of component to be painted, comprises framework in which coating film is fixable and which is used to position coating film over surface, where system comprises application unit
WO2023017853	(SHOW) SHOWA DENKO KK	Lining material for repairing existing pipes, comprises fiber base material containing resin composition comprising vinyl ester resin, ethylenically unsaturated group-containing monomer, compound selected from oxides and/or hydroxides of specific group elements, and photopolymerization initiator
EP4140693	(WOER-N) WOERWAG LACK & FARBENFAB GMBH & CO KARL	Method for applying adhesive film to component, involves stabilizing component against deformation caused by negative pressure, and pressing elastic membrane together with adhesive film against surface of component using stamping unit
WO2023017851	(SHOW) SHOWA DENKO KK	Renovating pipe, by preparing resin composition comprising resin, ethylenically unsaturated group-containing monomer, thickening agent, and photopolymerization initiator, impregnating fiber base material with resin composition, obtaining lining material, arranging lining material in pipe, and curing
EP4122677	(UNIO-N) UNIONPROFILI SRL	Method for making composite element used for manufacturing structures or components for furnishing or construction industry, involves folding panel along folding channel so as to join portion of inner surface of each of two portions
US2023003328	(DUPO-N) DUPONT SAFETY & CONSTR INC	Pipe liner for use with cured-in-place pipes, has nonwoven felt included with polyester staple fibers and para-aramid staple fibers, where basis weight and thickness of nonwoven felt are measured specific in range

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2022402259	(SMSU) SAMSUNG ELECTRONICS CO LTD (HOYE-N) HOYEON CO LTD	Film attaching apparatus for attaching UV-curable film to E.G. smartphone, has film absorption-fixing part provided with divided absorption areas, which are sequentially arranged to correspond to moving direction of roller module and configured to have different absorption forces, respectively

Estirado

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023031971	(UFLE-N) UFLEX LTD	Monomaterial heat-sealable bi-axially oriented polyester film used to flexible package in the food industry, comprises skin layer modified with co-poly ester alloys having amorphous and semi-crystalline elastomeric co-polyesters
WO2023286541	(TOYM) TOYOBO KK	Biaxially oriented laminated polypropylene film used as insulating films for capacitors and motors, back sheets for solar cells, high barrier films with inorganic oxide layers, and base films for transparent conductive films such as indium tin oxide, comprises substrate layers
WO2023286541	(TOYM) TOYOBO KK	Biaxially oriented laminated polypropylene film used as insulating films for capacitors and motors, back sheets for solar cells, high barrier films with inorganic oxide layers, and base films for transparent conductive films such as indium tin oxide, comprises substrate layers
WO2023012125	(INEO) INEOS EURO AG	Film oriented in at least machine direction used as multilayer film in article, comprises polyethylene composition having specific density and melt index
DE102021119557	(BRKM) BRUCKNER MECHANICAL ENG GMBH & CO KG (BRKM) BRUECKNER MASCHBAU GMBH & CO KG	Insertion device for automatically inserting material web from first stretching system into second stretching system, has conveyor device which is designed to move strip of material web, which emerges from first stretching system
WO2022259668	(KONS) KONICA MINOLTA INC	Method for manufacturing film roll by solution or melt casting, involves setting projecting portion with in specific range, and adjusting position of projecting portion so as to move continuously in longitudinal direction of surface of film

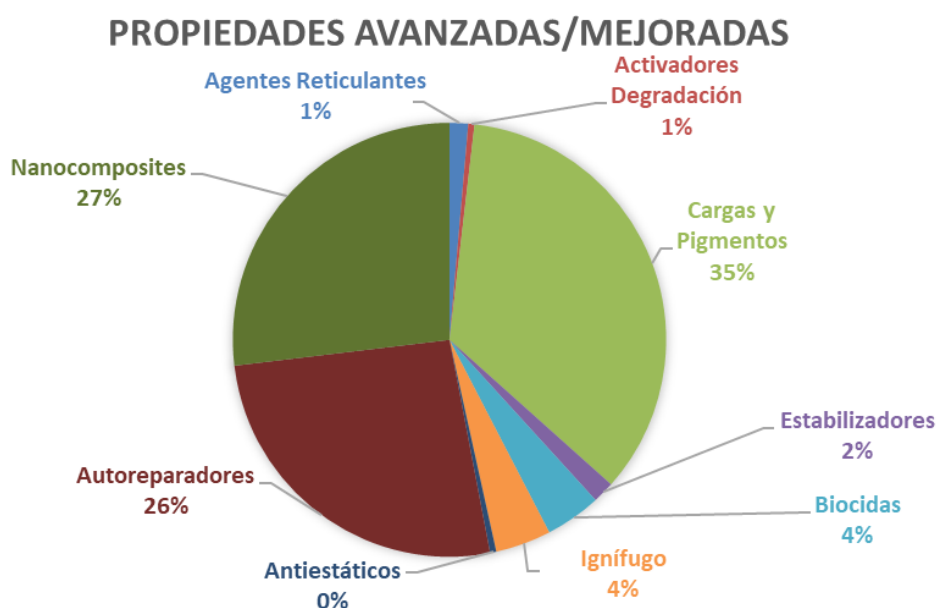
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Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
FR3126916	(SFRA) SAFRAN AIRCRAFT ENGINES	Mold for use in manufacture of composite material gas turbine fan casing, has compacting wedge which bears against side flanges of mandrel and covers top of external flanges of casing to be manufactured
WO2023028379	(MARS-N) MARSHALL COMPOSITE TECHNOLOGIES LLC	Automated C-bar bending system for reinforcing concrete, has mechanical manipulation device connected to movable supports, and controller directing movement of device, where device moves supports relative to stationary supports
FR3125739	(MFTE-N) MFTECH	Filament winding machine for winding continuous fiber on body, has winding system moved into active position for fiber winding by head winding and inactive position in which operator is carried out maintenance operations
WO2022269648	(DYNA-N) DYNAMIC TECHNOLOGIES SPA	Shaping tubes of polymeric material, E.G. thermoplastic, by bending and shaping tube using computer numerical control bending machine, and arranging bent tube in thermal conditioning unit comprising molds
US2022410507	(MITO) MITSUBISHI HEAVY IND CO LTD	Method for shaping laminated body of multi-layered sheet materials containing reinforcing fibers by using shaping die, involves depressurizing enclosed space to thin laminated body by sucking air of enclosed space formed in sealing step
WO2022265485	(DGAR-I) VALDES DE LA GARZA X	Production method for circular or non-circular tanks based on multiple walls of composite material through continuous or discontinuous winding of glass fiber reinforced resin, involves generating external wall of tank, and preventing material of external wall from hanging

VOLVER A
CONTENIDO

MATERIALES CON PROPIEDADES AVANZADAS O MEJORADAS

En el siguiente gráfico se muestra la distribución de las 866 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 seguido por autorreparadores y nanocompuestos.



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Cargas y Pigmentos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023041889	(MICL) CIE GEN ETAB MICHELIN & CIE	Production of elastomeric composition used for forming semi-finished article for tire, introducing ethylene monomer, inorganic reinforcing filler, and organosilane compound into twin screw extruder, and recovering extruded composition from extruder
WO2023013650	(ASAH) ASAHI KASEI KK	Antenna element has thermoplastic resin that contains polyphenylene ether-based resin, and load deflection temperature of thermoplastic resin composition is in predetermined range

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023032735	(DOWO) DOW TORAY CO LTD	Curable silicone composition for cured product for semiconductor device, comprises hot-melt organopolysiloxane resin having alkenyl group, organosiloxane compound containing siloxane unit and alkenyl group, organohydrogensiloxane compound, hydrosilylation catalyst, and functional inorganic filler
WO2023033043	(ASAH) ASahi KASEI KK	Polyamide composition used for automobiles, machinery industry, industrial materials, industrial materials, and building materials, comprises polyamide, branched polyamine, sterically hindered phenol, and azine-based dye or phthalocyanine-based dye
WO2023032969	(KAOS) KAO CORP	Asphalt mixture used in road paving method, comprises polyester resin, compound containing hydroxyl group or amino group, asphalt and aggregate containing asphalt regenerated aggregate
WO2023032741	(JAPG) ZEON CORP	Sheet for battery modules, vehicle use, power leveling, and mobile use, has crosslinked product of nitrile rubber and heat-dissipating filler
WO2023022122	(FUJF) FUJI FILM CORP	Composition used for producing film, comprises inorganic particles, cyclic siloxane compound and silicone-based surfactant other than cyclic siloxane compound
JP2023026857	(POPL) POLYPLASTICS KK	Method for suppressing deterioration of strength of two-color molded article of polybutylene terephthalate resin and polycarbonate resin, used for automobile component, involves adding carbodiimide compound to polybutylene terephthalate resin
WO2023017805	(SHOW) SUNALLOMER LTD	Polypropylene composition for injection molded product, comprises polypropylene, polypropylene composition comprising polypropylene and propylene-alpha-olefin copolymer, polypropylene composition comprising propylene-alpha-olefin copolymer, copolymer elastomer of ethylene and 1-butene and filler
JP2023025746	(TOYJ) TOSOH CORP	Metal member-polyarylene sulfide resin member composite for E.G. automobile, is injection-molded member of polyarylene sulfide resin composition comprising polyarylene sulfide resin, modified ethylene copolymer and glass fiber, which is integral injection molding of metal member and resin member
WO2023013716	(MITN) MITSUBISHI GAS CHEM CO INC	Curable composition used for forming prepreg for forming metal foil clad laminate for printed wiring board, comprise alkenylphenol, epoxy-modified silicone, epoxy compound excluding epoxy-modified silicone, and aminotriazine novolac resin

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023013711	(MITN) MITSUBISHI GAS CHEM CO INC	Thermosetting resin composition used for forming cured product, comprises polymer containing structural unit derived from alkenylphenol, structural unit derived from epoxy-modified silicone and structural unit derived from epoxy compound, and aromatic phosphorus compound
KR20230010360	(KANG-N) KANGNAM JEVISCO CO LTD	Powder coating composition useful for production of metallic products ranging from silver to gold comprises polyester resin with carboxyl group, epoxy resin with glycidyl ether of bisphenol A, pinhole inhibitor and leveling agent
WO2023006818	(ROHG) ROEHM GMBH	Thermoplastic molding composition useful in formed article, comprises polymer matrix comprising thermoplastic polymer, inorganic pigment comprising mixed metal oxides or oxosulfides comprising niobium, tin and zinc, and organic dye
WO2022270460	(SEKI) SEKISUI CHEM CO LTD	(Meth)acrylic resin composition used in inorganic fine particle-dispersed slurry composition, comprises (meth)acrylic resin comprising sulfur atom, high-molecular-weight (meth)acrylic resin(s) and low-molecular-weight (meth)acrylic resin, and organic solvent comprising hydroxyl group
JP2023012454	(KAOS) KAO CORP	Asphalt composition used in asphalt mixture for road pavement, contains asphalt and asphalt modifier, where asphalt modifier comprises polyesteramide containing structural units derived from alcohol component, carboxylic acid component, and polyamide component
WO2022264895	(SONY) DEXERIALS CORP	Thermally conductive sheet used in electronic device E.G. central processing unit, comprises cured product of composition containing binder resin, anisotropic thermally conductive filler, and thermally conductive filler other than anisotropic thermally conductive filler
WO2023280172	(TORA) TORAY ADVANCED MATERIALS RES LAB	Producing terminal-modified polyester resin by E.G. using diol composed of terephthalic acid or its ester-forming derivatives or its ester, subjecting to esterification or transesterification reaction, followed by polycondensation reaction
KR20220169439	(GLDS) LG CHEM LTD	Manufacture of superabsorbent polymer used for E.G. diaper, involves pumping superabsorbent particles by rotation of component dropped in direction of gravity and contacting with cooling air and water introduced into transfer space using spade-type cooler
WO2015200173	(CARB-N) CARBON INC (CARB-N) CARBON3D INC	Preparation of three-dimensional component E.G. lens, involves filling build region in optically transparent component with liquid comprising photopolymerizable component and solidifiable component, irradiating with light and curing

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2022262914	(CONW) CONTINENTAL REIFEN DEUT GMBH	Sulfur-crosslinkable rubber mixture useful for treads of pneumatic vehicle tires, comprises solid, solution polymerized, functionalized butadiene rubber, further diene rubber, liquid, modified diene polymer A silica and natural polyisoprene
JP7188519	(YOKO) YOKOHAMA RUBBER CO LTD	Rubber composition used in tread portion of tire E.G. pneumatic tire, and non-pneumatic tire of automobile, is obtained by compounding diene rubber containing specific modified conjugated diene polymer with filler and resin
WO2022259981	(ASAG) AGC INC	Composition used in metal-clad laminate for manufacturing wiring board, electronic materials and various devices, comprises fluoropolymer containing fluoroolefin-based units and units based on monomer having adhesive functional group, and inorganic filler having specific surface area

Agentes Reticulantes

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102021210272	(CONW) CONTINENTAL REIFEN DEUT GMBH (CONW) CONTINENTAL TIRES GERMANY GMBH	Adhesive composition for permanently bonding vulcanized rubber components to form composite E.G. vehicle tires, comprises diene rubber, organic solvent, hydrocarbon resin and/or polyolefin, stearic acid, and sulfur vulcanization system
WO2023031412	(BRID) BRIDGESTONE EURO NV SA	Rubber composition used for forming carcass portion of tire, comprises polymer base with cross-linkable unsaturated chain comprising natural rubber, and filler comprising carbon black and vulcanization system comprising sulfur, mixture of accelerator and anti-reversion agent
WO2023276517	(TORA) TORAY IND INC	Resin composition used for forming cured product for semiconductor device, comprises dione-based resin compound, and phenyl-based resin compound
EP4105369	(CONW) CONTINENTAL REIFEN DEUT GMBH	Composite material for use in manufacture of vehicle tires, comprises arrangement of juxtaposed steel cords which are at least partially covered by crosslinkable rubberizing compound

Estabilizadores

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023012248	(BADI) BASF SE	Thermoplastic polyurethane (TPU) used for E.G. irrigation device, and production of extrusion product, film, membrane, and shaped body, is formed as reaction product of mixture comprising polyol composition comprising polyol, chain extender, triol, and isocyanate composition comprising isocyanate
WO2022269249	(SYMP-N) SYMPHONY ENVIRONMENTAL LTD	Additive composition used in polymer substrate for food packaging, medicines or sanitary products, comprises carrier material, oxygen scavenger, and either antimicrobial substance or food preservative, where oxygen scavenger, antimicrobial substance and food preservative are different materials
EP4105256	(CVST) COVESTRO DEUT AG	Thermoplastic molding composition used for forming molded product, comprises preset amount of thermoplastic polyurethane polymer obtained by reacting aliphatic diisocyanate(s) and aliphatic diol(s) having preset molecular weight, and sterically hindered amine light stabilizer

Biocidas

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4112675	(MICH-N) MICHALIK PANAMEDICA MACIEJ	Manufacture of antimicrobial composite used for e.g. packaging material, involves adding zinc salt E.G. zinc chloride and deionized water, stirring, adding stabilizing polymer E.G. polyvinylpyrrolidone and polysulfone, stirring, dosing into cylinder extruder, heating, pressing, and cooling
JP2022184334	(SGNO) SUGINO MACHINE KK (OKAY-N) OKAYAMA PREFECTURE	Composite used for antibacterial agent, comprises biomass nanofibers and silver nanoparticles, where silver nanoparticles are precipitated and immobilized on biomass nanofibers

Ignífugos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102021123604	(UYAA-N) UNIV AACHEN APPLIED SCI	Polymer composition useful as aid in preventive fire protection in polymer-containing workpieces in field of E.G. construction, comprises polymer and additives including dehydrating flame retardant e.g. aluminium trihydroxide and magnesium dihydroxide, and filler
WO2023027544	(HANW) HANWHA SOLUTIONS CORP	Vinyl chloride resin composition for wallpaper, comprises plasticizer comprising regenerated cyclohexane dicarboxylate-based compound and cyclohexane dicarboxylate-based compound having preset acid value, antimony flame-retardant and phosphate flame-retardant
JP2023007873	(TOST-N) TOYO STYRENE CO LTD	Styrene-based flame-retardant resin composition used for E.G. office automation equipment, comprises rubber-modified styrenic resin, yellow brominated compound as flame retardant, flame retardant containing brominated compounds having specific melting point, and flame retardant aid
EP4105252	(CVST) COVESTRO DEUT AG	Thermoplastic molding composition to produce molding, comprises thermoplastic polyurethane polymer obtained by reacting aliphatic diisocyanate and aliphatic diol, where structural component used to produce thermoplastic polyurethane polymer

Autorreparadores

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023038043	(KAN) KANEKA CORP	Benzoxazine composition used for forming E.G. curing product, comprises benzoxazine compound, epoxy group-containing compound and/or transesterification catalyst is one or more chosen from acidic compounds, basic compounds, phosphorus compounds, and metal salts chosen from zinc, tin, and zirconium
WO2023014986	(UMBA) UNIV MARYLAND COLLEGE PARK (DONG-I) DONG Q	Forming new pipe portion (pipe within existing pipe) by applying first slurry over surface of existing pipe to form first layer, having powder, binder and solvent and sintering powder in first layer to form the pipe portion by subjecting

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023014508	(ESSO) EXXONMOBIL TECHNOLOGY & ENG CO	Reversible epoxy polymer used in composition, is obtained by reacting epoxy compound(s) in which at least portion of contains one reversible borate moiety or its derivative per molecule with curing agent(s) containing reversible borate moiety
DE102021120228	(DARS) UNIV DARMSTADT TECH KORPERSCHAFT OFFENTL	Cement additive for self-healing of cement-bound system, comprises bio-based plastic in form of fibers which is subjected to chemical decomposition process and silicon-containing solid component which is released when bio-based plastic decomposes and lead to chemical reaction
DE102021205957	(KOEH-N) KOEHLER INNOVATION & TECHNOLOGY GMBH	Biodegradable microcapsules useful in preparing e.g. medicinal product, coated paper and cosmetic product, comprise core material and shell, where shell includes barrier layer and stability layer

Nanocomposites

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023013253	(MITN) MITSUBISHI GAS CHEM CO INC	Multilayer film used for transportation machine parts such as automobiles, general machine parts, precision machine parts, medical equipment, and leisure sports goods, comprises layer formed from resin composition containing polyamide resin and single-walled carbon nanotubes, and other layer
WO2023009668	(REGC) UNIV CALIFORNIA	Nanocomposite ceramic or glass material used in E.G. fine china, comprises matrix materials, and nanostructures comprising core-shell nanostructure dispersed with matrix material
WO2023277145	(UYZA) UNIV KANAZAWA NAT CORP (KUSA-N) KUSANO SAKKO INC (SUMI-N) SUMITOMO PHARM FOOD & CHEM CO LTD	Producing polysaccharide composition compounded with polysaccharide nanofibers, involves mixing sol containing polysaccharide nanofibers, polysaccharide and solvent capable of dissolving polysaccharide and drying obtained mixture
JP2022189273	(TAKT) TAKEMOTO OIL & FAT CO LTD (TAKT) TAKEMOTO YUSHI KK	Sizing agent for producing inorganic fibers for composite material, contains resin and cellulose nanofibers
US2023091672	(AISE) AISIN TECH CENT AMERICA INC	Polymer-graphene composite component comprises composite structure with foam core comprising first polymer and graphene, and overmolded skin disposed on foam core, where overmolded skin comprises second polymer and graphene

VOLVER A
CONTENIDO

NOTICIAS

ESPAÑA SE POSICIONA DENTRO DE LOS 10 PAÍSES DE LA UE CON MAYOR NÚMERO DE SOLICITUDES DE PATENTE EUROPEA

La [Oficina Europea de Patentes \(OEP\)](#) ha publicado los datos estadísticos correspondientes al *Índice de Patentes 2022* que recoge el número de solicitudes de patente europea presentadas en dicha oficina durante el pasado año.

Número de solicitudes

En el año 2022 se presentaron un total de 193.460 solicitudes, lo que supone un crecimiento del 2,5% respecto al año anterior y el dato más alto hasta la fecha.

Con este indicador temprano de las inversiones en investigación y desarrollo de las empresas, se desprende la idea de la resistencia y sostenimiento de la innovación a pesar de las incertidumbres económicas globales.

España se encuentra entre los 20 primeros puestos del ranking de países con mayor número de solicitudes de patente europea, y entre los 10 primeros países de la UE. En el año 2022, se presentaron 1.925 solicitudes de patente europea de empresas e inventores de origen español, el segundo dato más alto de su historia.

Tecnologías

En el ámbito europeo, la comunicación digital, la tecnología médica y la tecnología informática registraron los mejores datos de solicitudes.

En el caso de España, son las tecnologías sanitarias las ocupan los tres primeros puestos de número de solicitudes de patente europea. El campo farmacéutico, sigue ocupando el primer puesto, seguido de la tecnología médica y la biotecnología. Estos tres campos agrupados en la denominada tecnología sanitaria, representan aproximadamente la cuarta parte del total de solicitudes de patente europea presentadas por España ante la OEP.

Respecto a aquellos sectores con mayor crecimiento en número de solicitudes de patente europea procedentes de España, cabe destacar la tecnología medioambiental, con un crecimiento del 82,1% con respecto al año anterior, la informática, y los sistemas de medición, con crecimientos del 35,0% y 31,7%, respectivamente.

Solicitantes

La empresa de telecomunicaciones china Huawei, vuelve a ser el principal solicitante de patentes en la OEP con 4.505 solicitudes, seguido por LG en segundo puesto y Qualcomm.

En el caso de **España**, son los centros de investigación y las universidades los que desempeñan un papel fundamental en la innovación, ocupando seis de seis de los diez primeros puestos de principales solicitantes (CSIC, Fundación Tecnalia Research & Innovation, Universitat Politècnica de València, Universidad Autónoma de Barcelona, Universidad del País Vasco y Universitat de Barcelona).

Regiones españolas con mayor número de solicitudes

Cataluña, la Comunidad de Madrid y el País Vasco representan el 66% de las solicitudes de patentes presentadas ante la OEP desde España, con 604, 410 y 255 solicitudes, respectivamente, siendo las regiones con mayor número de solicitudes de patente europea.

Fuente: Oficina Europea de Patentes

Más información

[Índice de Patentes de la Oficina Europea de Patentes 2022](#)

[Infografía](#)

PUESTA EN PRODUCCIÓN DEL NUEVO SISTEMA WEB DE PRESENTACIÓN ELECTRÓNICA DE INVENCIONES, OEPMSEI

El pasado 13 de diciembre se puso en producción el nuevo sistema Web de presentación electrónica de invenciones (OEPMSei – Solicitud Electrónica de Invenciones).



Esta aplicación, desarrollada de la mano de la [Oficina Europea de Patentes](#), pretende dar solución a una de las mayores demandas de nuestro colectivo de usuarios, consistente en modernizar y hacer más amigables e intuitivos nuestros sistemas de solicitud electrónica de las diferentes modalidades de invenciones.

Para llevar a cabo una transición lo más suave posible y facilitar una

incorporación gradual, se ha diseñado un plan que consta de varias fases:

- Fase 1: Acceso de un grupo reducido de usuarios profesionales a la primera versión de la herramienta, para solucionar posibles errores e incorporar las primeras mejoras. Es la fase en la que actualmente nos encontramos
- Fase 2: Acceso ampliado a otros usuarios profesionales
- Fase 3: Apertura de la herramienta al público en general

Durante todo este proceso se seguirá manteniendo el sistema actual (e-OLF) de forma paralela, y se irá restringiendo su acceso de forma progresiva.

Desde la [OEPM](#) queremos agradecer a la Oficina Europea de Patentes su gran implicación en el proyecto y el gran trabajo en equipo llevado a cabo.

Más información

[OEPMSei](#)

LA OEPM PARTICIPA DE FORMA ACTIVA EN FORO TRANSIFIERE 2023

La Oficina Española de Patentes y Marcas, O.A. (OEPM) ha participado en la duodécima edición del **Foro Transifiere**, Foro Europeo para la Ciencia, Tecnología e Innovación, celebrada en Málaga del 15 al 17 de febrero.

Este Foro se ha consolidado como uno de los principales puntos de encuentro para el ecosistema de innovación en el sur de Europa, siendo su objetivo fomentar la transferencia de ciencia y tecnología, así como la cooperación entre los sectores científico y empresarial.

A lo largo de los tres días de Transifiere, las pymes, emprendedores y start-ups expusieron sus productos y servicios ante las grandes empresas demandantes de tecnología. El Foro contó con la participación de más de 4.300 profesionales, más de 500 empresas, entidades y administraciones públicas y 420 ponentes nacionales e internacionales. Además, se celebró la entrega de los premios al periodismo científico, que nacieron con el objetivo de dar visibilidad al trabajo e impacto en la sociedad de los medios y periodistas.



Al igual que en ediciones pasadas, la OEPM, forma parte del Comité Organizador de la propia feria. Asimismo, el organismo ejerce como jurado en los premios de periodismo y participa en diversas conferencias y paneles relacionados con la propiedad industrial. Entre otros, cabe destacar un Taller de Búsqueda de Patentes impartido por profesionales de la Oficina, un encuentro con Plataformas Tecnológicas y una mesa redonda sobre Generación de oportunidades de negocio: propiedad industrial y uso de patentes, moderada por la Directora del Departamento de Patentes e Información Tecnológica.

El acto de inauguración del Foro Transifiere contó con la participación, entre otras personalidades, del Subsecretario de Industria y de la Directora de la OEPM, y por parte del Ministerio de Ciencia e Innovación, la Secretaria General de Innovación. Asimismo, participaron la Junta de Andalucía y el Ayuntamiento de Málaga.

Transifiere cuenta por otro lado con la participación de representantes del mundo científico y académico de Universidades, Plataformas Tecnológicas y Centros públicos y privados de Investigación, que aprovecharon esta oportunidad para posicionar sus avances tecnológicos en el mercado.

En palabras del Subsecretario, Pablo Garde, “el Ministerio de Industria, Comercio y Turismo lleva apostando decididamente estos años por hacer de la innovación el eje central de la industria y del emprendimiento en España. Un claro ejemplo de ello ha sido el impulso a los Proyectos Estratégicos para la Recuperación y Transformación Económica (PERTE). Además, la protección de la propiedad industrial, que brinda la OEPM, es un instrumento esencial para conseguir este propósito”.

La innovación y el emprendimiento, impulsados por el sector público, son, en definitiva, los protagonistas absolutos de esta Feria.

