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Oficina Española
de Patentes y Marcas

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

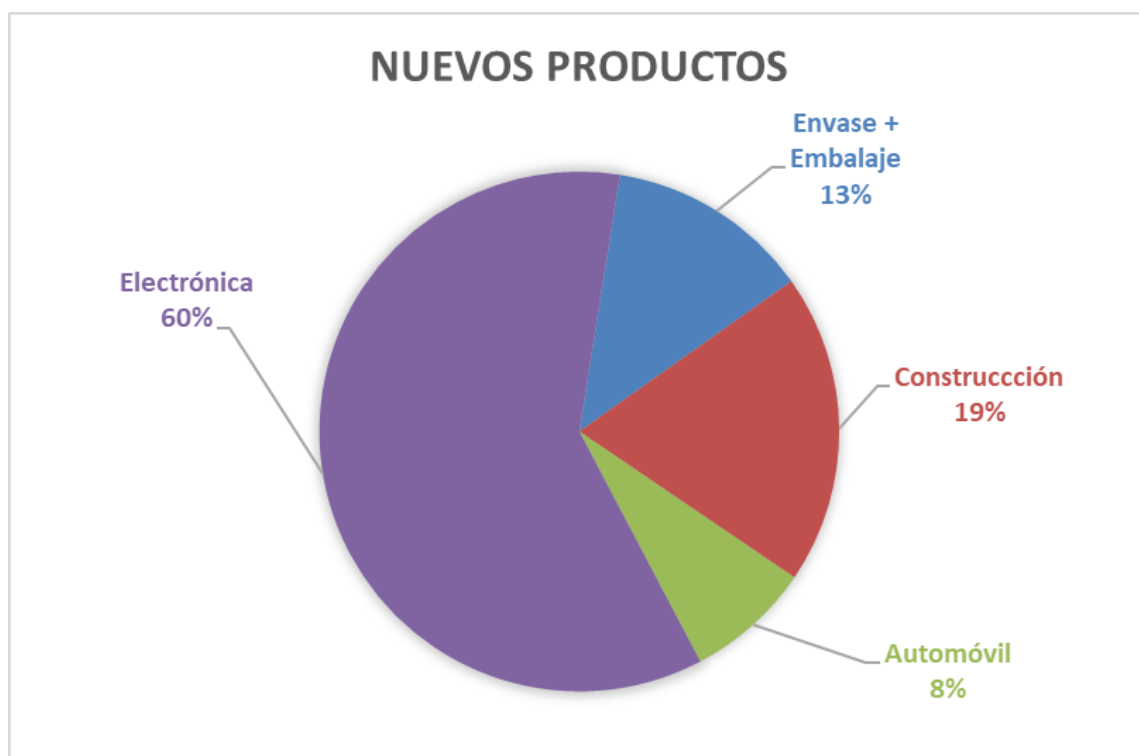


NUEVOS PRODUCTOS

SOSTENIBILIDAD Y
ECONOMÍA CIRCULARNUEVOS PROCESOS
INDUSTRIALESMATERIALES CON
PROPIEDADES AVANZADAS
O MEJORADAS

NUEVOS PRODUCTOS

En el siguiente gráfico se muestra la distribución de las 18.808 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
EP4342812	(MOND-N) MONDI AG	Side gusset bag for provision, storage and transport of food, has front wall that is formed by inner film and outer film which are partially unconnected to one another, and another front wall and side gusset that are formed by inner film and outer film which are partially unconnected to one another
FR3139569	(CARB-N) CARBIOLICE	Biodegradable single-layer article useful for preparing packaging E.G. lid comprises polyhydroxyalkanoate, biodegradable polyester, enzymes capable of degrading biodegradable polyester and thermoplastic polymer com-additional
WO2024053403	(DNIN) DIC CORP	Gas barrier coating agent used for forming layer of laminate, comprises polyol which is product of acid component including ortho-oriented polycarboxylic acid and polyol component, isocyanate compound, and compound having active hydrogen group with preset molecular weight or solubility parameter
WO2024033779	(SOAL-N) SOAL UNIPERSONALE SRL (VERN-N) VERNISSAGE SRL	Reversibly collapsible bottle in kit for containing detergents for household cleaning and deterging in industrial settings, has tubular body for connecting shoulder to bottom end, and tubular body comprised with compressible bellows
US2024067393	(PLAS-N) PLASGAD PLASTIC PROD ACS LTD	Foldable plastic container for industrial applications, has handle configured for altering configuration of modular rotary locking unit between locked configuration and unlocked configuration
WO2024039899	(CHRO-N) CHROMATIC TECHNOLOGIES INC	Heat seal indicator for visually determining whether sealing substrate is sufficiently heated to preselected threshold, has developer that variably interacts with leuco dye according to temperature of indicator
US2024010410	(COTW-N) CO2PAC LTD	Beverage container E.G. pressure-adjustable container for blow-molded plastic container, has upper region extended from cylindrical sidewall, and continuous channel formed with circumference of cylindrical sidewall
JP2024007049	(UEDA-N) UEDA SHIKOKI CO LTD	Slip sheet bending machine for bending corrugated fiberboard sheet processed for slip sheet I.E. thin sheet, has bending unit for bending tip portion of corrugated fiberboard sheet to be conveyed by conveying unit to form slip sheet

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE202023002454	(KILI-N) KILIAN DRUCK GRUENSTADT DINGES GMBH	Multi-layer label made from pure polyethylene recyclate used for plastic container, has backing label and top layer made from 100 percent PE recyclate, and carrier label is partially painted and provided with wash-off adhesive

Construcción

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4343096	(GRUN) GRETSCH-UNITAS GMBH	Security device for wing of window or door arrangement, has end portion and deformation region which are in continuous contact with one another, viewed along movement axis of end portion and secured against free relative rotation about movement axis
WO2024063318	(SKSK) SKC CO LTD	Colored electrochromic device for window device of E.G. building, has first transparent electrode fixed on first substrate and formed with first color changing layer, and second color changing layer formed on electrolyte layer
EP4339412	(LMMO-N) LM DEI FRAT MONTICELLI SRL	Corner joint for use in kit for connecting two adjacent profiles in window and door frame E.G. window, has fixed peg arranged on outer surface of second section of U-shaped plate, and intermediate section for connecting first section and second section
KR20240020433	(SKSK) SKC CO LTD	Electro-chromic device for window device for artificially controlling visible light, has first transparent electrode layer formed between first and second substrates, and electro-chromic portion fixed between transparent electrode layers
EP4321715	(SFSI-N) SFS GROUP INT AG	Adjustable plastic door or window hinge for mounting panel or sash to frame, has dual threaded grub screw provided with head engagement portion that is accessed via adjustment opening in plate-shaped portion for allowing lateral adjustment of first hinge portion according to second hinge portion
EP4310290	(KUHLE-I) KUHLEMANN H	Sealing profile useful in window and facade construction, comprises a foamed area made of a composition containing TPE material containing propellant I.E. isoalkane, where the TPE material is thermoplastic elastomer I.E. styrene-ethylene-butylene-styrene block copolymer

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
DE102022117520	(HEIQ-N) HEIQ RAS AG	Optically transparent composite material used as retrofit film for window glass, interior walls, exterior walls and greenhouses, coated substrate, E.G., film, glass or transparent plastic plate, comprises polymer film that is transparent to infrared spectroscopy radiation and infrared radiation
WO2024005148	(NTTA) NITTA CORP	Window material used for E.G. building, comprises translucent substrate layer(s), and adhesive layer(s) made of adhesive composition comprising thermosensitive adhesive having refractive index which increases as temperature decreases, and polymer fine particles
WO2024062665	(KUBI) KUBOTA CORP	Device for grouping pipelines constituting pipe network such as waterworks, has update control unit that regroups conduit enclosed in polygon in superposed state when calculated superimposed area satisfies first predetermined condition
KR102634118	(SAMA-N) SAM AH CO LTD (LIMJ-I) LIMJOOTAE	Non-dig partial repair device for sewer pipe, has expansion tube which is placed in transfer unit, moved through sewer pipe along transfer unit, and expanded into cylindrical shape by compressed air injected from outside, where mesh is formed by weaving horizontal and vertical yarns
NO20220754	(LOVE-N) LOVEMAR AS	Sorting unit for use in trawling system for receiving and sorting E.G. plastic waste floating and/or mixed into water column from oceans and lakes, has conduit that provides flow restriction for flowing waste so that water is encouraged over shelf and large objects are passed over shelf
ES1304185	(INPO-N) IND PONSA SA	Photovoltaic panel lifting system for lifting E.G. pipes and building construction components, has
JP2021055849	(ONDA) ONDA MFG CO LTD (ONDA) ONDA SEISAKUSHO KK	Pressure control valve for drain pipe connected in building, has valve housing integrally molded with soft resin that includes axial portion provided with control portion which controls maximum displacement amount of axial portion
ES1305808	(CSIN-N) CONSTR INDUSTRIALIZADAS EN BLOQUE SL	Panel set for enclosure and thermal insulation of ventilated facades, has exterior panel with parallelepiped shape and joined by steel staples at top and bottom parts, which are screwed to metal rods to join panels
EP4332320	(TECH-N) TECHNICONOL-CONSTR SYSTEMS LLC	Waterproof low-pitched and flat roof for performing examination to detect and locate water penetrations, has electro conductive contact tapes secured to water-proofing elements and heat-insulating plates to form integrated electro conductive base combining multiple heat-insulating plates

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2024068232	(LOUI-N) LOUISIANA PACIFIC CORP	Self-sealing insulated panel E.G. oriented strand board, has foam insulation board with back face and front face, where inner face is affixed to face of manufactured-wood structural panel, and opposing edges of board comprise joint elements of modified ship-lap joint
WO2024037959	(SIKA) SIKA TECHNOLOGY AG	Floor structure for acoustic damping, in vehicle, building and offshore installation, in ship, fire protection system, especially as firewall and fire barrier, has insulating layer that is arranged between supporting element and constraining layer
PT118084	(NHYD) HYDRO EXTRUDED SOLUTIONS AS (AMOR-N) AMORIM CORK COMPOSITES SA	Hollow insulating profile for aluminum frames, has composite comprising specific weight of polypropylene and specific weight of cork granulate, and composite comprises specific weight of polypropylene and specific weight of cork granulate
WO2023248134	(LIMO-I) LIMOOCHI E	Honeycomb accordion style wall for high-insulation double layer panel construction system, has central honeycomb network which is made of engineering polymer which has six edges so that folding ability and transferring is facilitated, because of style, get shape and is connected to pillar by hook
US2024075711	(HOLC-N) HOLCIM SOLUTIONS & PROD US LLC	Induction board used in roofing application I.E. system, comprises metal wire disposed over base material, where metal wire is configured to act as susceptor for induction welding process; adhesive disposed over base material, where metal wire is coated with adhesive which is thermally activated
US2024017521	(DUPO) DDP SPECIALTY ELECTRONIC MATERIALS US (DUPO) DUPONT SAFETY & CONSTR INC	Inverted roof membrane assembly for residential and commercial roofing applications for materials, has waterproofing membrane for direct or indirect mounting on top of roof decking, flame-resistant fabric shield directly or indirectly placed on top part of membrane

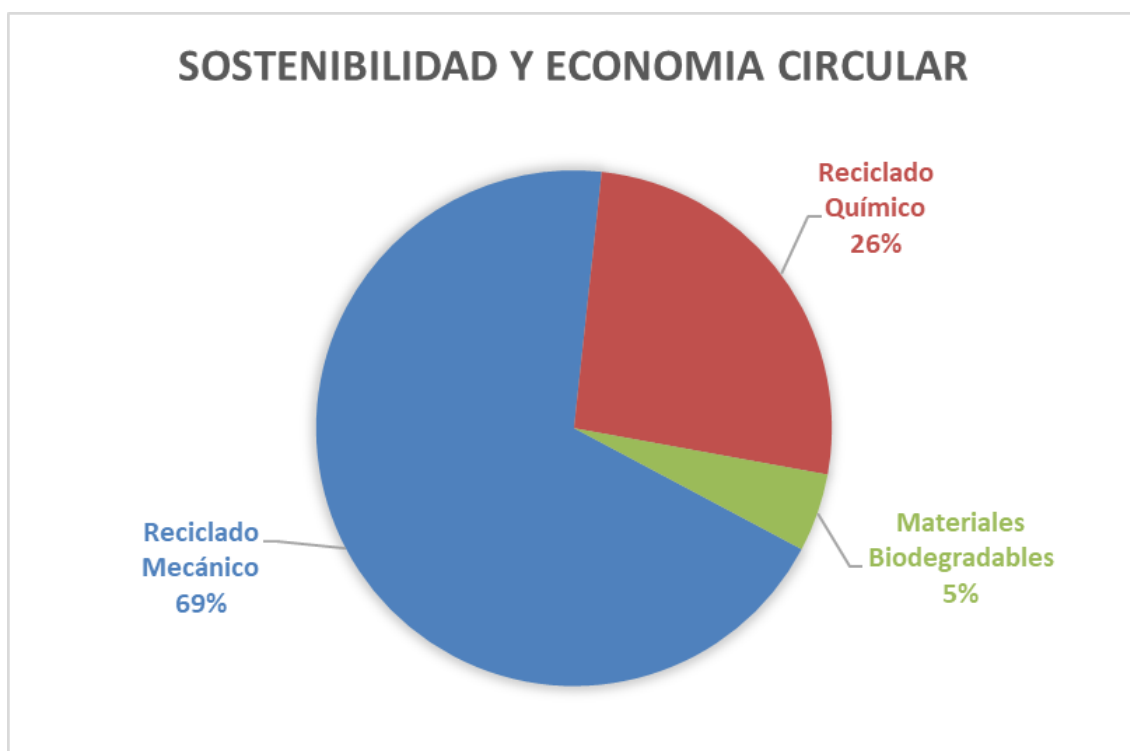
Automoción

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2024092426	(HYMR) HYUNDAI MOTOR CO LTD (KIAK) KIA CORP	Side reinforced body for vehicle E.G. hybrid vehicle, has side reinforcement including zig-zag pattern cross-section and provided between side sill inner and side sill outer, and reinforcement surfaces connect upper and lower reinforcement surfaces
DE102022121319	(BAYM) BAYERISCHE MOTOREN WERKE AG	Connection arrangement for spring and/or damper element for chassis of motor vehicle I.E. passenger car, on wheel control arm to guide vehicle wheel of motor vehicle, has connecting element with two length regions, which can be pivoted relative to one another in non-destructive manner
DE102023113252	(HYMR) HYUNDAI MOTOR CO LTD (KIAK) KIA CORP	Rear vehicle body structure for vehicle I.E. car, has passenger compartment section manufactured by carbon fiber reinforced plastic material, and rear module mounting plate arranged at lower portion of rear bulkhead panel
EP4311735	(IMSG-N) IMS GEAR SE & CO KGAA	Multi-component gear for transmission arrangement of brake actuator of motor vehicle, has support housing that projects axially into area of outer toothing and into area of spindle nut toothing, and includes smaller outer diameter than outer toothing
WO2024017835	(ATNM) AUTONEUM MANAGEMENT AG	Heat radiating trim component used for automobile E.G. car, comprises fibrous cover layer with surface facing compartment, heater layer comprising metallic flat ribbon, porous adhesive layer covering surface of ribbon, and insulating layer, and has preset overall air flow resistance
DE102022118466	(BAYM) BAYERISCHE MOTOREN WERKE AG	Side skirt for body of partially electrified passenger car, has reinforcing element stiffening longitudinal support element applied to outside of support element
EP4306391	(KARH-N) KARHOF GROEP BV	Method for manufacturing box-shaped cargo carrying space enclosure mounted on vehicle by supplying and interconnecting set of modules such as lightweight panel, involves inserting male and female portions into each other at first mutual angle of first and second joining elements
FR3137027	(FAUR) FAURECIA SIEGES AUTOMOBILE SA	Motor vehicle seat, has articulation bar made of polymer material, connecting element overmolded on opposite end, and control element fixed with connecting element

VOLVER A
CONTENIDO

SOSTENIBILIDAD Y ECONOMÍA CIRCULAR

En el siguiente gráfico se muestra la distribución de las 1.307 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
WO2024029220	(KANF) KANEKA CORP	Producing polyhydroxyalkanoate for producing aqueous polyhydroxyalkanoate suspension, and polyhydroxyalkanoate aggregate in E.G. agriculture, fisheries, forestry, horticulture, medicine, and sanitary product, involves filter-press filtering polyhydroxyalkanoate aqueous suspension using filter medium
WO2024029514	(KANF) KANEKA CORP	Production of polyhydroxyalkanoate used for producing aqueous polyhydroxyalkanoate suspension, involves supplying polyhydroxyalkanoate aqueous suspension to filter press filtration machine and squeezing, and washing filter cake obtained by squeezing
WO2024029492	(DNIN DIC CORP (NIIT) NAT INST ADVANCED IND SCI & TECHNOLOGY	Copolyester used in artificial leather, synthetic leather, shoes, thermoplastic resins, foamed resins, elastic fibers and urethane raw materials, comprises structural unit derived from 3-hydroxybutyric acid, structural unit derived from dicarboxylic acid, and structural unit derived from diol
WO2024024667	(MITU) MITSUBISHI CHEM CORP	Resin composition used for producing molded article, comprises aliphatic polyester resin and cellulose, and has preset maximum value in loss tangent calculated by dynamic viscoelasticity measurement of composition
WO2024014339	(UBEI) UBE CORP	Thermoplastic resin composition used for molded article such as E.G. automobile part, electric/electronic part, building material, various container, and daily necessity, comprises thermoplastic resin, polyrotaxane whose cyclic molecule is modified with graft chain, and cyclic carbodiimide compound
WO2024014545	(SHOK-N) SHOKOZAN MINING CO LTD	Resin material used for molding molded article, comprises biodegradable plastic and cellulose microfiber, and has preset biomass ratio
WO2024003450	(LUON-N) LUONNONVARAKESKUS	Conversion of plant material for manufacturing biocomposites, involves providing aqueous suspension comprising plant material, feeding suspension to multi-screw extruder, adding external carbohydrate to increase viscosity of suspension and to improve dough-like behavior

Reciclado Mecánico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2024022994	(HOND) HONDA MOTOR CO LTD (NIKL) JAPAN STEEL WORKS LTD	Resin decomposition treatment method, involves supplying thermoplastic resin from resin supply section to cylinder, heating and pressurizing supplied thermoplastic resin, supplying heated and pressurized fluid to melted and plasticized thermoplastic resin, decomposing, and extruding
WO2024058133	(LTEC) LINTEC CORP	Method for removing coating layer, involves winding first base material film from which first coating layer is removed in roll shape, and arranging first intermediate layer between first base material film and first peeling layer
WO2024051932	(ATNM) AUTONEUM MANAGEMENT AG	Recycling of waste material used for forming flooring system, involves reducing feedstock consisting of automotive trim portion waste including bilayer consisting of thermoplastic elastomeric resin-based surface layer and backing layer into chips, pulverizing, and removing material fraction
WO2024042253	(ECOP-N) ECOPLASTER SABATER SL	Dry, physical-mechanical recycling method for plastic waste, involves cutting material resulting from previous stage until forming pellets or granules of predetermined size and cooling pellets or granules until reach second predetermined temperature
EP4327999	(HITA) HITACHI LTD	Apparatus for supporting plastic recycling, has blending estimator that inversely estimates blending condition of additive to be blended in sample based on physical property and deterioration degree of sample that are estimated by physical property and deterioration estimator
EP4324614	(TIAL-N) TIALPI SRL	Method for processing end-of-life photovoltaic panel, involves milling and cutting laminated body to remove sealant residues from laminated body and remove head portion, and subjecting laminated body to thermomechanical treatment to detach glass of front plate from encapsulating layer
SE2230251	(PEST) PERSTORP AB	Recycled thermoplastic composition with sustainable processing properties used for injection molding, extrusion molding and/or blow molding, comprises material having laminated thermoplastic material having E.G. polyethylene terephthalate
EP4316785	(NORX) NORDEX ENERGY SE & CO KG	Method for removing metal insert from wind turbine rotor blade portion, involves weakening connecting layer such that connecting layer connecting metal insert to fibrous composite material in less stable manner, and removing metal insert from fibrous composite material

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4311643	(NICO-I) NICOLETTI I	Treatment of photopolymer material that constitutes matrix plates in flexographic printing involves shredding and refining of matrix plates into pieces smaller than in each direction and subsequent cold grinding to obtain powder, mixing powder with thermosetting resin and amine hardener
US2024024934	(NICO-I) NICOLETTI I	Process for treating photopolymer material that makes up master plates in flexographic printing, involves shredding and refining plates into pieces smaller than 10 mm. in any direction, where photopolymer is ground and refined into pieces of 5 mm, and polymer melt is based on polypropylene
WO2024012667	(TOMR-N) TOMRA SORTING GMBH	System for sorting out different types of material from municipal solid waste stream, has sorting arrangement comprising sorting station for receiving particulate stream of plastic material from pre-sorting arrangement
WO2024004473	(TORA) TORAY IND INC	Coating detachment mechanism for peeling off coating from coated film to be conveyed, has nozzle element that is mounted upstream of peeling element in film transport direction, and peeling element and nozzle element that are constituted with suction nozzle
EP4296028	(BAGE-N) BAGE PLASTICS GMBH	Method for recovering plastics from mixture of two polymers for electrical devices and downcycling applications, involves separating all fractions into fractions containing essentially pure polymers, and removing metal-containing components from heavy fraction before density separation

Reciclado Químico

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2024062960	(INOA) INOAC CORP KK	Device used for decomposing polyurethane foam for producing polyol, comprises container including polyurethane foam and decomposing agent, and having unit that retains liquid material of decomposed product of foam and decomposing agent, unit that presses foam into liquid material, and heating unit
WO2024061704	(SABI) SABIC GLOBAL TECHNOLOGIES BV	Hydrogenation of a waste aromatic-containing polymer, by E.G. contacting waste aromatic-containing polymer solution with adsorbent material, and contacting treated waste aromatic-containing polymer solution with hydrogenation catalyst
US2024101784	(CHAN-N) CHANDA CHEM CORP (JUPIN) JUPITER SANGYO CO LTD	Additive used in recyclable thermoset composition for recycling waste thermoset material, comprises copolymer having carbamate group, carbonate group and urea group, and preset number-average molecular weight
WO2024040304	(SAMS-N) SAMSARA ECO PTY LTD	Hydrolyzing monoester terephthalate, comprises exposing monoester terephthalate to polypeptide having monohydroxyethyl terephthalate hydrolase activity, to convert monoester terephthalate to terephthalic acid and alcohol
WO2024038080	(INEO) INEOS STYROLUTION GROUP GMBH	Production of thermoplastic molding compounds involves feeding dispersion comprising rubber and precipitation solution to produce aqueous suspension, sintering rubber particles, dewatering aqueous suspension, and returning liquid phase comprising residual rubber
WO2024042084	(PURA) PURAC BIOCHEM BV	Separation of mixture containing lactide and glycolide involves subjecting mixture to melt crystallization at preset temperature, and obtaining mother liquid and crystallized product containing crystallized lactide or crystallized glycolide
US2024059805	(ANEL-N) ANELLOTECH INC	Removing chlorine from mixture of plastics involves feeding mixture of plastics with chlorine to extruder, then heating mixture in extruder releasing from molten mixture gas comprising hydrogen chloride that exits through degassing port, and passing extruded plastic mixture
US2024067594	(UTBA) UT-BATTELLE LLC (ARIF-I) ARIFUZZAMAN M (SAIT-I) SAITO T	Deconstruction of polymer waste into useful breakdown product E.G. bis(2-hydroxyethyl)terephthalate, involves contacting condensation polymer waste with catalyst of organic nitrogen-containing base and carboxylic acid to obtain useful product comprising monomer species capable of being polymerized

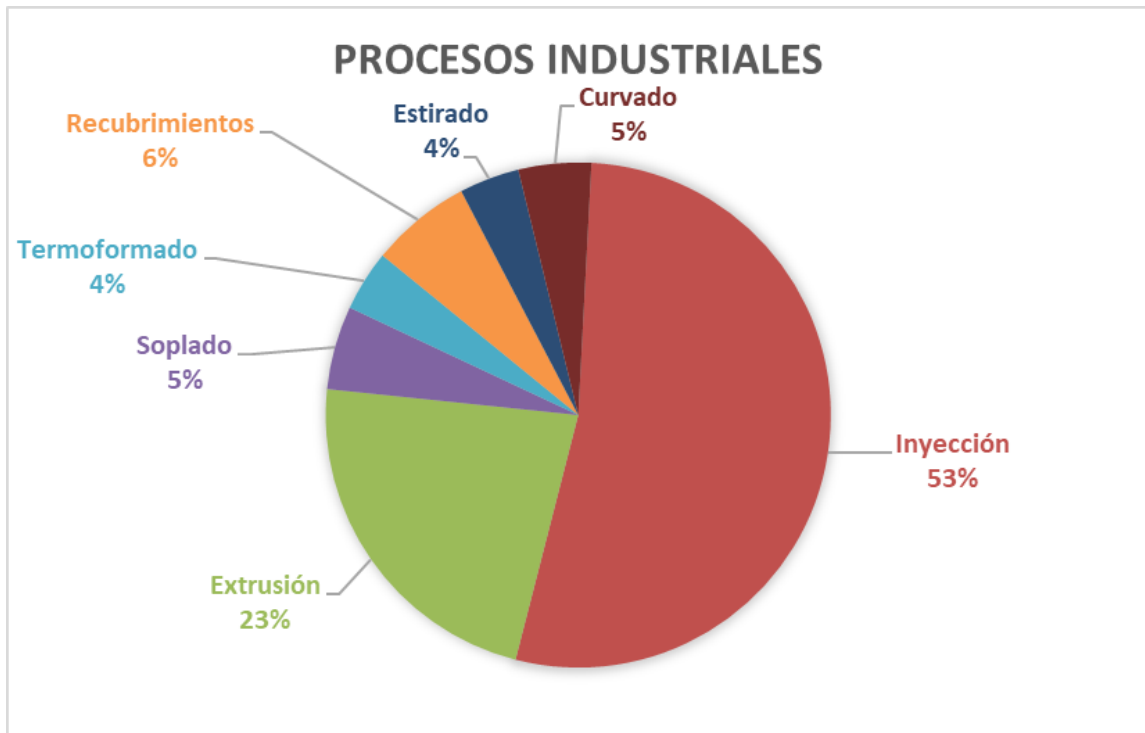
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2024035253	(ESPE-N) ESPECIALIDADES QUIMICAS GLOBALES MEXICO	Purification and deodorization of silicone from washing cosmetic manufacturing line, involves performing distillation with steam stripping to eliminate light contaminants from dirty silicone and rectifying for elimination and separation of heavy and light contaminants to obtain rectified silicon
SE2230251	(PEST) PERSTORP AB	Recycled thermoplastic composition with sustainable processing properties used for injection molding, extrusion molding and/or blow molding, comprises material having laminated thermoplastic material having E.G. polyethylene terephthalate
WO2024024831	(UBEI) UBE CORP	Recycled polyamide resin composition used for forming molded article, is obtained by melt-kneading polyamide resin or polyamide resin composition containing polyamide resin and polyamide resin waste material comprising polyamide resin and thermoplastic resin other than polyamide resin
ES2958484	(MUCR) UNIV MURCIA (ASEM-N) ASOC EMPRESARIAL CENT TECNOLOGICO DEL (UYJA-N) UNIV JAUME I	Depolymerization of polyurethane mass by mixing polyurethane mass with depolymerization reaction medium having ionic liquid, catalyst basic and nucleophilic agent and, forming two immiscible fractions of mixture of polyol and ionic liquid
EP4306585	(STAM) DSM IP ASSETS BV	Recovery of epsilon-caprolactam and polyether polyurethane from polyamide 6 and polyether polyurethane comprising material in plant, involves E.G. charging polyamide 6 and polyether polyurethane to separation section and separating by dissolution of polyether polyurethane in organic solvent
WO2023242352	(CNSJ) CONSEJO SUPERIOR INVESTIGACIONES CIENTIF	Preparation of cellulose-based gel E.G. cellulose-based aerogel for forming film, involves contacting cellulose-based gel with inoculum suspension
WO2024008728	(BADI) BASF SE	Solvent-efficient process used for recycling polymer(s), involves preparing mixture comprising polyurea-containing compound, and polyol, by providing solid material comprising polymers containing polyurethane and polyurethane urea, and passing solvent and mixture into an evaporation unit
KR20240000171	(SKSK) SK CHEM CO LTD	Storage of recycled bis(2-hydroxyethyl)terephthalate used for producing polyester resin, involves mixing recycled bis(2-hydroxyethyl)terephthalate prepared by depolymerization of waste polyester with solvent, and storing at preset temperature to maintain preset yellowness index
WO2024004369	(NITL) NITTO DENKO CORP (NITL) NITTO DENKO CS SYSTEM CORP	Production of recycled acrylic adhesive involves producing hydrophilic polymer by reacting acrylic adhesive with liquid and alkali compound, and producing recycled acrylic polymer by reacting hydrophilic polymer with alcohol

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
FR3137384	(MICL) CIE GEN ETAB MICHELIN & CIE (PYRO-N) PYROWAVE INC	Depolymerizing polystyrenic filler comprises preparing polystyrene filler to cause plastic compounds to melt, carrying out pyrolysis of feed, supplying at least first gaseous pyrolysis flow, and separating stream rich in aromatics
FR3137385	(MICL) CIE GEN ETAB MICHELIN & CIE	Preparation of polyethylene terephthalate element involves contacting surface of element with plasma having preset apparent power and depolymerizing element
PL445032	(NAMA-N) NAMAR NAWROCKI SPK	Production of composite material involves preparing strips of polyurethane foam by cutting polyurethane foam raw material into short strips, polyester fabric and polyester fibers having preset length and melting point, mixing, forming deck of mixed components, heating formed plate, and cooling
KR20230174065	(GLDS) LG CHEM LTD	Production of vinyl chloride-based polymer used in manufacture of product, involves preparing mixture by adding alcohol to vinyl chloride polymer slurry, separating waste liquid from mixture to obtain vinyl chloride-based polymer, and adding separated waste liquid to mixture
FR3137097	(KEMO-N) KEM ONE	Purification of vinyl chloride polymer comprising heavy metal E.G. lead, involves dissolving polyvinyl chloride in 2-methyl-tetrahydrofuran, separating heavy metals, precipitating polyvinyl chloride by adding mixture comprising water and compatibilizing agent and recovering pure polyvinyl chloride
EP4296302	(AQOR) ARKEMA FRANCE (HEAT-N) HEATHLAND BV (NIST-N) JAPAN STEEL WORKS EURO GMBH	Depolymerization method for recovering monomer from polymer, involves E.G. pyrolyzing feed material containing polymer in pyrolysis reactor so as to generate hot gas stream, removing solid and liquid impurities from gas stream in separator and condensing monomer contained in gas stream in condenser

VOLVER A
CONTENIDO

NUEVOS PROCESOS INDUSTRIALES

En el siguiente gráfico se muestra la distribución de las 9.647 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
WO2024062392	(MINN) 3M INNOVATIVE PROPERTIES CO	Composition used for forming article E.G. facepiece of respirator, comprises non-fluorinated thermoplastic, and branched silsesquioxane polymer comprising terminal groups and silicon-containing units
WO2024063148	(PAEN) PASCAL ENG CORP	Mold cooling system for injection molding machine, has several opening and closing valves with prescribed interval in projecting direction that are provided in inlet and outlet circuits such that hose connected to opening/closing valve is provided to hang down in slaver shape
ES1305912	(BALC-I) DOMINGO BALCELLS A	Fixed injection device, has straight structure moved with ends of set of mold holders, where fixed position of injection and demolding stations is determined and connected with overall structure of device body
WO2024063084	(POPL) POLYPLASTICS KK	Method for predicting behavior of voids occurring inside injection molded product, involves calculating strain generated in element of analytical model by structural analysis using elastic modulus distribution and temperature load distribution, and predicting location and amount of voids from strain
DE102023124558	(VOSS) VOSS AUTOMOTIVE GMBH	Rotationally symmetrical injection-molded hollow body for use in rotary valve of E.G. fuel cell vehicle, has peripheral wall provided with inside and outside, and through opening for penetrating peripheral wall
EP4338842	(WALD-N) WALDORF TECH GMBH	Packaging method for packaging plastic injection molded portion designed as pipette tips or medical reaction vessels, involves forming second storage level either directly by final packaging units or adjustable intermediate storage
EP4338935	(ATGR) APTAL RODOLFO ZELL LLC (ATGR) APTAR RADOLFZELL GMBH	Method for producing liquid dispenser, involves providing protective cap of liquid dispenser with expansion structure on inside which tapers from outside in direction of discharge opening, where expansion structure is adapted to preliminary shape of discharge structure

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2024038884	(ASAH) ASAHI KASEI KK	Resin composition used for cleaning molding machine, comprises thermoplastic resin, synthetic wax, and polyolefin resin having preset glass transition point, and has preset absolute value of difference between solubility parameter of thermoplastic resin and solubility parameter of synthetic wax
WO2024048442	(NASB) NISSEI ASB MACHINE CO LTD	Preform manufacturing device E.G. injection molding apparatus for manufacturing resin preform, has post-cooling unit which cools bottom portion of preform, and cools barrel section with barrel section of preform pressed to cooling cavity mold by compressed air passing through opening section
JP2024033268	(CANO) CANON MOLD CO LTD (NIKL) JAPAN STEEL WORKS LTD	Resin-container molding die of injection blow molding machine used for molding resin container, has annular step portion which is provided with outer peripheral surface contact side wall surface that is arranged in contact with outer peripheral surface of flange-shaped opening portion of parison
CA3208898	(INGL-N) INGLASS SPA	Apparatus for injecting molten plastic material into mold for making objects, has joining unit distinct from plate and the actuator and mounted for crossing gap and connecting outlets, where gap separates plate and actuator at outlets
WO2024033178	(ARBH) ARBURG GMBH & CO KG	Method for detecting actual position of axis E.G. electrical axis of machine for handling and/or processing plasticizable material, involves comparing deviation of expected measured variable from recorded model output measured variable with threshold value
EP4309865	(CVST) COVESTRO DEUT AG	Method for producing composite component for E.G. rail, involves injecting thermoplastic composition containing aromatic polycarbonate and hydroxyl component into tool cavity, enlarging cavity of tool for creating gap space, and injecting reactive polyurethane raw material mixture into gap
WO2024020669	(HUIN) HUSKY INJECTION MOLDING SYSTEMS LTD	Molding system for producing and inspecting molded articles E.G. beverage container, has processor that controls additive device for adjusting color of molded articles in response to difference between average of detected two articles and desired color being different from predetermined value
WO2024024084	(FUFA) FANUC CORP	Tolerance range setting device used in E.G. electric type injection molding machine of injection molding machine system, has tolerance range setting unit to set tolerance range based on adjustment value set in adjustment value setting unit and analysis value acquired in acquisition unit

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2024017706	(CVST) COVESTRO DEUT AG	Producing composite component, comprises injecting reactive polyurethane raw material mixture containing polyisocyanate component, polyfunctional hydrogen-active compound and polyurethane additive into gap between carrier and tool surface
FR3137862	(BURG-I) BURGER D (DECO-I) DECOOPMAN E (DERU-I) DERUYTER J A (DETH-I) DETHIER V	Punch device for injection mold of polyethylene terephthalate preform for manufacture of E.G. bottles, has annular recess arranged between axial core, which carries evacuation channels and central channel, and tubular zone
WO2024010969	(SAFA-N) SAFARI BELTING SYSTEMS INC	Conveyor belt module for use in package handling, processing, distribution and sorting of products, has planar unit having first edge, opposing second edge, top surface and bottom surface and first and second links
WO2024009513	(FUFA) FANUC CORP	Control device for injection molding machine, has injection motor that moves injection element, and zero point correction unit that corrects zero point of pressure sensor based on detected value output by pressure sensor during fourth control
EP4296031	(NSSK) NISSEI PLASTICS IND CO LTD	Method for supporting molding of pulverized material resin material, involves plasticizing and injection-molding material, where material is plasticized by rotating screw inserted in heating tube before use of material
WO2023243589	(TOXW) TOYO INK SC HOLDINGS CO LTD (TOXW) TOYOCOLOR CO LTD	Black resin composition used for forming molded article E.G. cap, comprises polyolefin resin and pigment, molded article with preset length, width and thickness, and has preset average transmittance

Extrusión

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2024064698	(AMTE-N) AMTEK RES INT LLC	Producing freestanding, biaxially-oriented, microporous polyolefin membrane in lithium ion battery by E.G. passing composition having polyolefin and process oil through twin screw extruder and sheet die and stacking two layers of sheet
DE102022123610	(DOHL-N) DOHLE EXTRUSIONSTECHNIK GMBH	Adapter for supplying granules to hand welding extruder for thermoplastics, has inlet connection that is composed of inlet channel, one end of which is connected to inlet opening while other end is detachably connected to opening of granulate container
FR3139023	(FAUR) FAURECIA SIEGES AUTOMOBILE SA	Method for manufacturing E.G. back cushion of vehicle, involves receiving curtain of melted continuous fibers falling by gravity into molding cavity of molding tool, and solidifying tangle of fibers conforming to molding cavity
US2024075670	(PLAG-N) PLA GIKEN CO LTD	Apparatus for extrusion molding E.G. catheter shafts for producing medical catheters, for injecting e.g. drug solutions into sites in patient body, has resin supply path fixed in through hole on end side of through hole relative to connection point between another resin supply path and through hole
WO2024054266	(BRAD-I) BRADLEY J J (GRAH-I) GRAHAM J D	System for coextruded hemp composite board, has mixed extrudate that is substantially oriented in output direction of extruder due to shear force acting on mixed extrudate as it ejected from manifold
US2024066779	(STSO-N) ST SOFFIAGGIO TECNICA SRL	Molten or solution polymer extruder head assembly, has extruder head provided with extrusion line that is inserted in cylindrical seat formed in extruder head and locking unit actuated for releasing extrusion line and allowing extraction of extrusion line from seat
JP7431297	(SHBU) SHIBAURA MACHINE CO LTD	Screw machine has housing that is provided with side cylinder into which screw portion is inserted and the vent opening into side cylinder, and first vent stuffer device is configured to open first vent hole to atmosphere through vent hole

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4321660	(AQUA-N) AQUAPAK IP LTD	Manufacture of polyvinyl alcohol fibers for forming nonwoven fiber product, involves melting composition comprising homopolymeric polyvinyl alcohol, plasticizer which is diol, triol and/or polyol and stabilizer E.G. sodium stearate, extruding, forming extrudate into molten fibers, and solidifying
WO2024037999	(MERE) MERCK PATENT GMBH	Effect pigment used in product I.E. cosmetic product, rinse-off product, packaging material, decorative film, varnish, printing ink and plastic, comprises two transparent layers of first polymer and two transparent layers of second polymer
WO2024038012	(SGNF) SIGNIFY HOLDING BV	Method for producing three-dimensional item by fused deposition modelling in LED luminaire, involves depositing core-shell extrudate to provide 3D printed material comprising core and shell enclosing core
WO2024024847	(MITU) MITSUBISHI CHEM CORP	Production of water-soluble film used for package, involves extruding resin composition containing water-soluble polymer and water in multi-screw extruder including screws having preset length/diameter ratio, configured by combining temperature-adjustable cylinders and screw elements
US2024019388	(STEE-N) STEELASTIC CO LLC	System for performing defect detection of extruded cap strip for use with strip extruder for performing construction of automobile and automobile tire assemblies, has processing unit for determining whether surface temperature exists outer side tolerance range and indicating presence of defect
US11874223	(GOOD) GOODYEAR TIRE & RUBBER CO	Characterizing multi-layered tire tread, comprises providing first and second rubber composition having first and second refractive index respectively; determining difference between first refractive index and second refractive index; comparing difference to threshold refractive index
EP4306296	(SICA-N) SICA SPA	Apparatus for for distributing sequences of pipes for extrusion line of pipe, has control unit for actuating distribution conveyor on basis of signal of presence of pipes to move conveyor at different speed for different pipes
ES2958282	(UNVI-N) UNION VIMA SL (VIDA-I) IGLESIAS VIDAL J (SOLE-I) VIDAL SOLE J	Device for producing E.G. ceiling, has inlet hopper for feeding construction material towards extruder that pushes material towards nozzle, where nozzle comprises two rectangular sections laterally displaced from each other

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
PT118084	(NHYD) HYDRO EXTRUDED SOLUTIONS AS (AMOR-N) AMORIM CORK COMPOSITES SA	Hollow insulating profile for aluminum frames, has composite comprising specific weight of polypropylene and specific weight of cork granulate, and composite comprises specific weight of polypropylene and specific weight of cork granulate
EP4302953	(MAAG-N) MAAG GERMANY GMBH	Granulator for granulating plastics, has spindle element that is designed as spindle sleeve, and drive shaft which is axially fixed and non-rotatably connected to cutter head, where axial movement of spindle sleeve is transmitted to cutter head
SE2250804	(CELL-N) CELLINK BIOPRINTING AB	Nozzle for coaxial extrusion used in coaxial bio-printing of patient-specific vessel-like structures used as vascular grafts, has modules that are assembled by user to jointly form nozzle, and disassembled from each other by user and optionally reassembled with same or different number of module

Otros Procesos

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2024059028	(BRAI-N) BRAIN DRIP LLC (SAFE-N) SAFEGUARD LLC	Wheeled drive mechanism for forming mandrel, has rotation mechanisms are capable of rotating drive wheels relative to forming mandrel, and rotation of drive wheels is capable of advancing a nascent tubular composite structure (TCS) along exterior of forming mandrel
WO2024037902	(SGNF) SIGNIFY HOLDING BV	Light generating system for use in lighting device that is utilized in workplace E.G. office, has light exit window transmitting portion of device light and reflect light, and curved optical window comprising polymeric material and curved polymeric diffusor
EP4321330	(STUT) UNIV STUTTGART (HOCH-N) HOCHSCHULE AALEN KOERPERSCHAFT OEFFENTLICHEN RECHTS (HOCH-N) HOCHSCHULE AALEN (PVAT-N) PVA TEPLA ANALYTICAL SYSTEMS GMBH	Method for producing fiber composite components, involves positioning winding pin having contact surface and placing fiber around winding pins so that they connect two or more winding pins with each other and hardening resin
WO2024022826	(CARB-N) CARBON CYLINDER SRL	Spreader device for manufacturing cylinders having a polygonal cross-section through filament winding technology on plastic inner liners, has element that are vertically extended wings, parallel to axis of bar and having length equal to length of vertical sides of liner actuated
WO2023247380	(NAVA-N) NAVALDESIGN & CONSULTING SRL	Process for assembling composite material tubular nodes for trusses by mould lamination technique, has connecting areas with respective appendix elements of mould intended to production of derived bars of node and mould is laminated by forming node
EP4297111A1;	(EADS) AIRBUS OPERATIONS GMBH	Reinforcing element for structural profile for round, oval or elliptical structural tube, has composite structure that is expanded by applying electrical voltage to introduce structural profile into composite structure
WO2024029200	(TAON) CI TAKIRON CORP	Stretched film for packaging films, comprises base layer comprising polyethylene having specific density and barrier layer having ethylene-vinyl alcohol copolymer and having specific water vapor permeability, and has specific heat shrinkage rate
WO2024024710	(TORA) TORAY IND INC	Polyolefin microporous membrane used for separator for secondary battery, has preset strength as determined by puncture strength measurement at the shutdown temperature, and temperature difference at predetermined crystal melting endotherm measured by differential scanning calorimetry

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2023018509	(BLOC-N) BLOCKWISE ENG LLC	Parison tube former for forming medical balloon, has radial compression heater for heating preform tube, and first and second tube retainers configured to move apart from each other to stretch tube and from parison tube with balloon portion
WO2023243639	(KOJK) KOHJIN FILM & CHEM CO LTD	Biaxially stretched polyamide film used for laminate film, comprises aliphatic polyamide, polymetaxylylene adipamide, and oxide or hydroxide, and has shrinkage rate, and absolute value of difference in shrinkage rate after steam treatment of end-portion film sample and center film sample
WO2024058220	(MCKM-N) MCK CO LTD	Bonding device for laminating adhesive film to workpiece E.G. substrate, arranges cutting positions of upper film and lower film supplied to match misaligned state of workpiece, when bonding sheet elements to workpiece
WO2024043305	(FUJF) FUJI FILM CORP	Manufacture of curved glass with reflective film used in head-up display system, involves heating and pressing reflective film along convex surface to mold under conditions, and bonding molded reflective film to curved glass with adhesive layer facing concave surface
DE102022121917	(BRAW-N) BRAWO SYSTEMS GMBH	Device for curing liner drawn into pipe of sewage system during inversion process, has pneumatic coupling fixed on first end portion of body element and adapted for connection to liner, and pull coupling fixed on second end portion of body element and adapted for connection to pull cable
EP4321425	(OCEA-N) OCEAN-TAPE GMBH	Calender process used for forming roll, involves preparing mixture containing polyorganosiloxane and peroxide crosslinking agent and calendaring to form self-fusing silicone layer and applying layer of protective film material
WO2024019338	(SMSU) SAMSUNG ELECTRONICS CO LTD (JMTE-N) JM TECHNOLOGY CO LTD	Device for attaching protective film to surface of E.G. smartphones, has base including rail, and elastic elements that are arranged on guide housing and providing restoring force in first direction with respect to movement of guide block
KR20240009851	(SHNA) SHONAN GOSEI JUSHI SEISAKUSHO KK	Irradiation device for irradiating light to inner wall of cylindrical structure, has first and second substrates that are rotatably connected at intersections of both ends of substrates and other intersections where substrates intersect each other in accordance with spiral shape
WO2024013608	(SLEE-N) SLEEVE TECHNOLOGY BV	Device for arranging sleeve-like covering around shrink film and spreading device to provide desired appearance, has spreading element comprising narrowing part in transition area between transport rollers in main plane of flat mouth

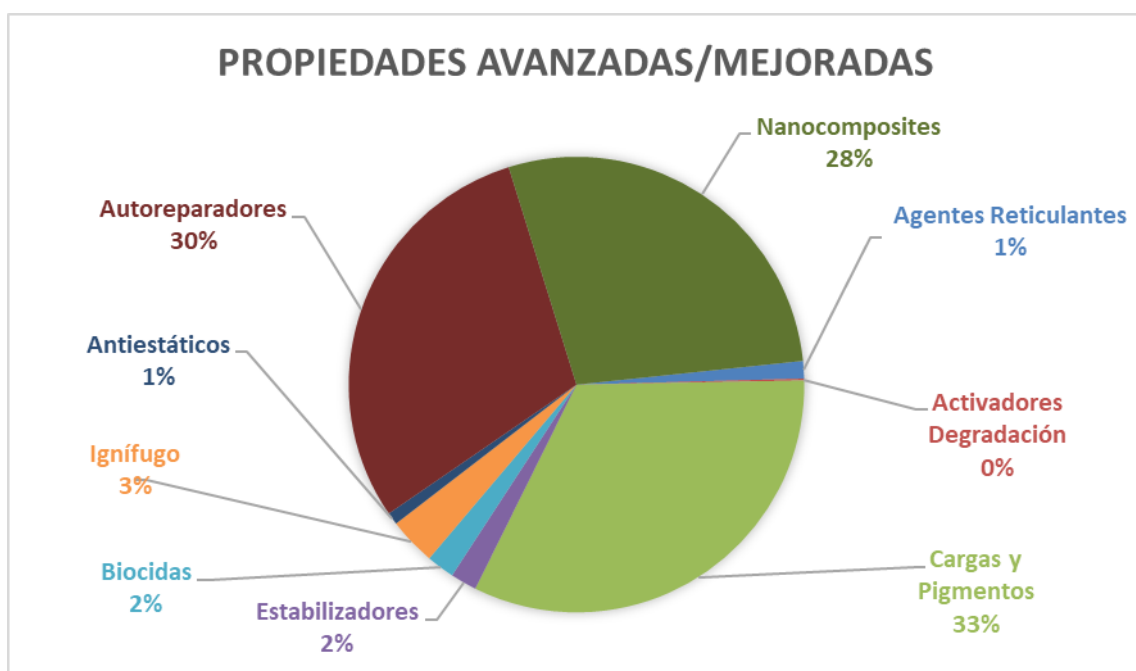
Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
EP4299293	(DMPL-N) DMPLAST DECLINAISONS MATIERES PLASTIQUES (DMPL-N) DMPLAST-DECLINAISONS MATIERES PLASTIQUES	Method for repairing or reinforcing lining hollow or solid body, involves carrying out jacket by applying electric current to winding for predefined duration, simultaneously progressive tightening of jacket on body
US2023408961	(RICO) RICOH KK (KATO-I) KATO Y (OCHI-I) OCHIAI T (SAIT-I) SAITO Y (SHIM-I) SHIMODATE K (SUGI-I) SUGIYAMA K (TAKA-I) TAKAI N (YOSH-I) YOSHIDA S	Sheet laminator for use in image forming system, has multiple temperature detectors provided at different positions along axial direction of thermal fixing roller pair
WO2024061973	(NVMT) NOVAMONT SPA	Biodegradable molded or thermoformed article for packaging food, has body and barrier label which comprises biodegradably diacid-diol polyester comprising butylene dicarboxylate units
WO2024051879	(ISCH) SCHAEFFLER TECHNOLOGIES AG & CO KG	Bipolar plate manufacturing method for producing bipolar plate for electrochemical cell E.G. fuel cell, involves forming hollow structure between sections, heating and placing films in opposite molds to form rib-shaped cavities, where films are arranged in contact with cavities
TW202402972	(NAMI) NAMICS CORP	Conductive paste used for forming flexible electrical circuit material for producing molded article, comprises conductive particles, thermoplastic resin and solvent, and has preset temperature for measuring storage modulus
WO2024052169	(NEST) SOC PROD NESTLE SA	Self-standing blow molded plastic bottle for holding carbonated beverage E.G. carbonated water, has sitting radius of largest circle formed by points of contact with feet and flat surface, and ratio between maximum foot depth and sitting radius is predetermined value
WO2024047603	(SPIA) SIPA SOC IND PROGETTAZIONE & AUTOMAZIONE	Method for automatically determining electrical energy in kWh to be supplied to furnace for heating performs of stretch-blowing molding machine, involves extracting power-to-mass ratio value, and calculating electrical energy in kWh required for hourly productivity
FR3139329	(SIDL) SIDEL PARTICIPATIONS	Gripping device for gripping preform of container made of thermoplastic material in thermal conditioning unit E.G. oven, has elastic unit that maintains male or female unit of jaws in female or male unit of support or respectively of ejector in locking position
WO2024007073	(AEMP-N) AEM POWER SYSTEMS INC	Superplastic blow forming method for creating wide variety of different products, involves operating pressure controller to maintain gas pressure supplied to SFO in a manner that maintains ratio of detected supply pressure to detected forming pressure between maximum limit and minimum

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
JP2024013089	(JASY) JSP CORP	Production of foam blow-molded product used for air conditioning duct, involves blow-molding foamed product obtained by foaming polyolefin resin including branched homopolypropylene and linear block polypropylene, and olefin thermoplastic elastomer which is hydrogenated product of triblock copolymer
DE102022117518	(KROE) KRONES AG	Device for treating plastic container E.G. pet bottles, has transfer device having inspection device for checking alignment of plastic containers, and ejection device for ejecting misaligned plastic containers
DE102022117749	(KROE) KRONES AG	Gripping device of transport device for transporting containers, has clean room boundary which runs between carrier and gripping element, where transmission of movement pulse generated outside the clean room from both drive devices to element arranged inside room is enabled
FR3136694	(SIDL) SIDEL PARTICIPATIONS	Preforms supplying device, has rotating feed wheel fixed on fixed frame of feed device, and scroll slide whose downstream end is tangentially oriented to feed wheel at point of tangency

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MATERIALES CON PROPIEDADES AVANZADAS O MEJORADAS

En el siguiente gráfico se muestra la distribución de las 577 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.



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
WO2024063052	(NIOD) NOK CORP	Composition E.G. rubber composition used for forming crosslinked molded product, comprises carbon black, crosslinking agent and polyol ester as plasticizer which is reaction product of neopentyl polyol and monocarboxylic acid
WO2024043029	(TORA) TORAY IND INC	Polymer particles used in composition for manufacturing three-dimensional molded article, comprise polyamide comprising terminal carboxyl group and terminal amino group, and preset amount of terminal modifier, and have preset sphericity and average particle size
WO2024053440	(SHIE) SHINETSU CHEM CO LTD	Millable silicone rubber composition used for thermally conductive sheet for heat dissipation in electronic device, comprises linear organopolysiloxane having alkenyl group, organohydrogenpolysiloxane, thermal conductive filler, addition reaction catalyst, and addition reaction control agent
JP2024035935	(TEIJ) TEIJIN LTD	Composition used for forming molded article, comprises aromatic polycarbonate resin, phenoxy resin and/or epoxy resin, and glass fiber chosen from surface treatment agent and sizing agent and gas component obtained using carboxylic acid anhydride or alcohol compound
WO2024057803	(MATU) PANASONIC INTELLECTUAL PROPERTY MANAGEME	Resin composition used for prepreg, comprises radically polymerizable compound having carbon-carbon unsaturated double bond in molecule, phosphoric acid ester compound having alicyclic hydrocarbon structure in molecule, and inorganic filler, and has preset thermal conductivity after curing
WO2024053429	(TOYO-N) TOYOBO MC CORP	Resin composition used for laser marking E.G. symbol, comprises thermoplastic resin, glass fiber and potassium titanate
JP2024032683A;	(FUJI-N) FUJI BAKELITE CO LTD	Cage for breeding experimental animal E.G. mouse, has transparent portion that is made of transparent thermoplastic resin and opaque portion that is made of opaque resin composition containing thermoplastic resin and filler

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2024043311	(ASAH) ASAHI KASEI KK	Branched conjugated diene polymer composition used for forming cured product, comprises cellulose nanofibers, and branched conjugated diene polymer having preset contraction factor, aromatic vinyl monomer content and coupling polymer ratio
JP2024015717	(SHIE) SHINETSU CHEM CO LTD	New one-end-modified organopolysiloxane used as surface treatment agent in silicone composition for electronic component such as integrated circuit element such as central processing unit and graphics processing unit in personal computer and smartphone, and motor vehicle
PL440888	(UYMI-N) UNIV MICKIEWICZA POZNANIU ADAMA	Polymer biocomposite used for electronics, comprises polylactide having preset molecular weight and carbonate lake sediment in preset weight ratio
WO2024034673	(ASAH) ASAHI KASEI KK	Conjugated diene polymer used in rubber composition, has preset Mooney viscosity and Mooney relaxation rate
WO2024034665	(YOKO) YOKOHAMA RUBBER CO LTD	Rubber composition used for E.G. tire tread portion, contains diene rubber and thermoplastic resin, and has preset absolute value of difference in half-value width in temperature dependence curve of tan-delta between composition and composition treated by immersing composition in toluene and drying
JP2024022282	(YAWH) NIPPON STEEL CHEM & MATERIAL CO LTD	Resin composition used for producing cured product E.G. insulating material, comprises at least one crystalline resin having preset melting point, and additive which is layered clay mineral
WO2015200173	(CABN) 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
WO2024024850	(SHOW) RESONAC CORP	Prepreg used for laminate for printed wiring board for semiconductor package, comprises fibrous base material and thermosetting resin composition comprising thermosetting resin, inorganic filler comprising highly filled region and low filled region, and/or semicured product

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2024019625	(RESO-N) RE-SOLVE SP ZOO	Utilization of fly ash derived from combustion of petroleum-derived product used for producing thermoplastic polyolefin polymer composite with filler, involves preparing filler, especially for thermoplastics, containing carbon, and adding water to fly ash
JP7406050	(BAND) BANDO CHEM IND LTD	Toothed belt, has belt body made of rubber composition, which hydrogenated nitrile rubber, carbon black with average particle size, and plasticizer, where nitrile rubber is crosslinked using organic peroxide, sulfur, and co-crosslinking agent
EP4303245A1;	(SIKA) SIKA TECHNOLOGY AG	Polyurethane composition used as pack for building seal, comprises components comprising polyol mixture comprising polyol having specific average molecular weight and another polyol chosen from polyester polyols and polyether polyols
JP7401027	(TORA) TORAY IND INC	Polybutylene terephthalate resin composition used for forming molded article E.G. radome, is prepared by mixing polybutylene terephthalate resin in which aliphatic alcohol is combined with terephthalic acid, with acrylonitrile-styrene copolymer resin
WO2023243587	(MITA) MITSUI CHEM INC	Polypropylene resin composition used to form molded product, comprises propylene polymer composition comprising propylene polymer and filler, polyolefin composition comprising polyolefin, aliphatic polyamide resin and modified elastomer, and acid-modified polypropylene
WO2023243589	(TOXW) TOYO INK SC HOLDINGS CO LTD (TOXW) TOYOCOLOR CO LTD	Black resin composition used for forming molded article E.G. cap, comprises polyolefin resin and pigment, molded article with preset length, width and thickness, and has preset average transmittance
WO2023243712	(SEKI) SEKISUI CHEM CO LTD (PLYH) SEKISUI POLYMATECH CO LTD	Thermally conductive composition used for thermally conductive component, comprises organopolysiloxane having alkenyl groups, hydrosilyl groups, hydrosilyl groups, alkenyl group or methacryloyl group, thermally conductive filler and platinum group curing catalyst, and has preset type E hardness

Autorreparador

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2024092945	(UYNC) UNIV NORTH CAROLINA STATE	Self-healing system comprises structural polymer, optical fibers or polymer waveguides embedded in structural polymer, and micro-channels through structural polymer, where micro-channels are configured to deliver curing composition comprising photo-polymerizable liquid monomer
JP2024034974	(NIPA) NIPPON PAINT CORP SOLUTIONS CO LTD	Self-healing permanent magnet composition for E.G. robot, comprises magnetized magnetic powder and self-repairing material chosen from polyborosiloxane, dantan derivative and polyfunctional urethane (meth) acrylate
WO2024053436	(NIMS) NAT INST MATERIALS SCI (OSAU) UNIV OSAKA	Cured product used for self-healing component, is obtained by curing composition containing monomer comprising ethylenically unsaturated group and host group in molecule, which is monovalent group obtained by removing one hydrogen atom or hydroxyl group from cyclodextrin or cyclodextrin derivative
JP2024022574	(RIKE) RIKEN KK	Production of self-healing molded article E.G. film for food packaging materials, involves molding molded article material containing isoprene polymer containing structural units
WO2024035084	(KOLO) KOLON IND INC	Backsheet used for solar cell used in solar module, comprises base layer and self-healing layer formed on base layer
WO2024017963	(ETHE) ETH ZUERICH (UMIL) UNIV MILANO	Copolymer used in powder or paint used as coating for corrosion protection, comprises monomers
US2023414147	(USKK) UNIV SUNGKYUNKWAN RES & BUSINESS FOUND	Device for measuring biosignals of cardiac tissue of human or animal tissue and electrical stimulation and for drug delivery or implantable in body, comprises conductive composite comprising self-healing polymer and liquid metal
EP4293076	(BRID) BRIDGESTONE CORP	Preparation of rubber composition used to obtain cured rubber composition, involves polymerizing glycerol mono-methacrylate, crosslinking poly(glycerol mono-methacrylate) with borax, and blending with vulcanization activator system, dienic rubber, sulfur and vulcanization accelerator

Nanocomposite

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
US2024066786	(CANO) CANON KK	Performing nanofabrication method involves receiving information regarding in-plane distortion of substrate, modeling target out-of-plane displacement of template as summation of geometric modes, each geometric mode of geometric modes represented by linear combination of basis functions
US2022055303	(UNMS) UNIV MICHIGAN STATE	Additive manufacturing apparatus E.G. multi-material aerosol jet printing machine, has material mixing system for mixing polymer and/or nanocomposite material in first inlet, and ceramic or other particles in second inlet
WO2024039848	(AZUL-N) AZUL 3D INC	Highly-dispersed low-viscosity liquid composition used for manufacturing article, comprises non-polar organic carrier fluid, several nano and micro-sized inorganic particles, and multiple dispersants, exhibit different association affinities for inorganic particles of particulate size
CA3169159	(UYHM) UNIV HALLYM IACF (UYHM) UNIV HALLYM IND ACADEMIC COOP FOUND	Electroconductive and biocompatible hydrogel used in bioink for digital light processing printer, comprises macromere, in which the macromere is obtained by double methacrylation of gelatin, and conjugated with carboxylated graphene oxide
US2024036464	(CANO) CANON KK	Method for generating set of control values for imprint apparatus in application of nano-fabrication of integrated circuits in semiconductor-processing industry, involves obtaining set of relationship values, which indicates relationships between control values for imprint apparatus
WO2024002403	(NANO-N) NANOSPACE TECHNOLOGY SRO	Spinning head for continuous production of nanofibrous and submicron fibrous structures, has housing that is provided on outer circumference at location of through groove with extension component with radially oriented through channel
US2013216779	(TENE) UNIV TENNESSEE RES FOUND	Method for casting nanostructure using E.G. cellulose acetate in acetone for replication, involves replicating nanoholes by applying solution of polymer into template, and removing replica from substrate after solvent is dissipated
KR20230169526	(GSNA-N) GS NANOCELL CO LTD	Nanocomposite material injection molding machine, has hopper whose end is connected to melting portion, and ultrasonic unit include oscillator installed in circulation unit to generate and output ultrasonic waves of set frequency

Otras propiedades

Nº DE PUBLICACIÓN	SOLICITANTE	CONTENIDO
WO2024048524	(ASAE) ADEKA CORP	Antistatic agent used for forming molded article E.G. film, comprises polymer compound which is formed by reacting diol, dicarboxylic acid, polyether containing polyethylene glycol and polytetramethylene glycol and has hydroxyl groups at both ends, and epoxy compound having two or more epoxy groups
JP2024006459	(GNZE) GUNZE LTD	Conductive film comprises first layer, second layer, and intermediate layer formed between first layer and second layer, and each of first layer and second layer including first resin and conductive filler, and intermediate layer including second resin and conductive filler
DE102022122675	(POIN-N) POINT INNOMENSION TECH CO	Producing flame retardant involves mixing silica and modifier until uniformly dispersed to form silica solution, and subjecting obtained silica to spray drying
US2022175622	(UYIM-N) UNIV IMAM ABDULRAHMAN BIN FAISAL	Dental restoration base material used for E.G., denture, comprises first layer comprising cured first composition comprising (meth)acrylic polymer and (meth)acrylic monomer, and surface layer comprising antimicrobial nanoparticles
US2020181441	(BRAS-I) BRASHER J H (CAMP-I) CAMPBELL C (CHRI-I) CHRISTMAS S (WOOD-I) WOODHAM J	Applying polymer formulation to substrate involves providing liquid plastisol that includes polyvinyl chloride resins, plasticizer and stabilizer, providing substrate, and cooling liquid plastisol to first temperature
WO2024048400	(BRID) BRIDGESTONE CORP	Laminate used for tires, comprises rubber layer made of vulcanized rubber comprising surface treatment layer on surface joined to resin layer and resin layer
WO2024038400	(STOE) STORA ENSO OYJ	Producing agglomerated lignin-thermoset resin material, comprises forming agglomerated lignin-thermoset resin material by contacting lignin with thermoset resin, and curing agglomerated lignin-thermoset resin material
KR20240018755	(UVCH) UNIV CHANGWON NAT IND-ACADAMIC COOP	Environmentally-friendly thermoplastic film comprises starch-based biomass, coffee waste, and viscosity enhancer, and has preset UV-ray absorption rate
DE102022206165	(CONW) CONTINENTAL REIFEN DEUT GMBH	Dispersion used to produce electrically conductive passage in vehicle tire, comprises diene polymer, vulcanization chemical, plasticizer oil, electrically conductive filler, polyisoprene, liquid diene polymer, polybutadiene, paraffinic softening oil and electrically conductive filler

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NOTICIAS

ESPAÑA DESTACA EN INNOVACIÓN: MÁXIMO HISTÓRICO EN SOLICITUDES DE PATENTES EUROPEAS EN 2023

La Oficina Europea de Patentes (OEP) ha publicado los datos estadísticos correspondientes al “Índice de Patentes 2023” que recoge el número de solicitudes de patente europea presentadas en dicha oficina durante el pasado año.

En el año 2023 se presentaron un total de 199.275 solicitudes de empresas e inventores de todo el mundo, un 2,9% más que en 2022. En el caso de España, en 2023 se han presentado 2.111 solicitudes de patente europea. Las universidades y los centros públicos de investigación son los principales impulsores de estas solicitudes en España si bien también hay empresas privadas españolas entre los primeros puestos en 2023.

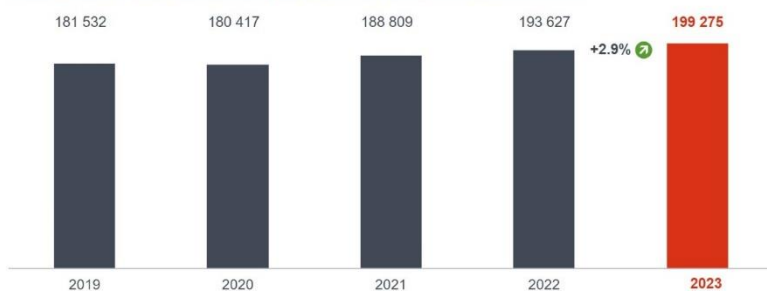
En cuanto a la distribución regional, Cataluña se posiciona en la cima del ranking, marcando un hito al registrar el mayor número de solicitudes de patentes, siendo la Comunidad de Madrid la que ocupa el segundo lugar.

En cuanto a la distribución por sectores, es el sector farmacéutico el que encabeza las solicitudes de patentes en Europa, seguido por el sector de la maquinaria, aparatos y energía eléctrica, que incluye tecnologías de energías limpias como las baterías y, en tercer lugar, el sector de la biotecnología.

Es importante destacar el papel de las mujeres en la innovación, ya que España sobresale en Europa con un impresionante 46% de las solicitudes de patentes que incluyen al menos a una mujer inventora. Según el Índice de Patentes de este año, España lidera las estadísticas de género entre los países con más de 2.000 solicitudes anuales, superando ampliamente el promedio del 27% de los Estados miembros de la OEP.

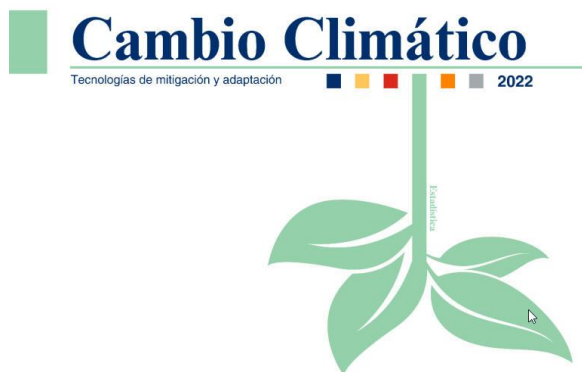
En los últimos 10 años, España ha experimentado el mayor crecimiento en solicitudes anuales de patente europea entre los principales países europeos, con un aumento del 43% desde 2014. Esto refleja una sólida inversión en innovación y posiciona a España como líder en invenciones en Europa.

CRECIMIENTO DE LAS SOLICITUDES DE PATENTES EUROPEAS A NIVEL GLOBAL



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NUEVO INFORME DE TECNOLOGÍAS DE MITIGACIÓN Y ADAPTACIÓN DEL CAMBIO CLIMÁTICO



Desde la OEPM nos tomamos muy en serio el cambio climático, y por eso hemos elaborado un nuevo informe de Tecnologías de Mitigación y Adaptación del Cambio Climático (TMACC).

Este estudio examina la evolución del número de solicitudes en TMACC, las sub-clasificaciones de la Clasificación Cooperativa de Patentes (CPC) Y02 con más solicitudes, y el perfil del solicitante en estas tecnologías. Se utilizan las patentes publicadas como indicador principal, tanto en la OEPM como en patentes europeas de origen español.

Las tecnologías se agrupan en cinco categorías principales:

- Producción de Energía Baja en Carbono
- Tecnologías Instrumentales
- Tecnologías de Uso Final
- Gestión de Residuos y Aguas Residuales
- Adaptación al Cambio Climático.

Según el informe las categorías predominantes en España son la categoría de Producción de Energía Baja en Carbono, seguida de Tecnologías de Uso Final y Adaptación al Cambio Climático. Sin embargo, esta distribución difiere del panorama mundial, donde las Tecnologías de Uso Final son predominantes.

A su vez, las tecnologías que más destacan son la Energía Solar Térmica, la Energía Eólica y la Energía Fotovoltaica. Además, esta última ha experimentado un fuerte crecimiento en los últimos años, alcanzando la primera posición en número de invenciones.

Por otro lado, se aprecia que aumenta la presencia de mujeres entre los inventores en TMACC.

En cuanto a los mayores solicitantes en patentes y modelos de utilidad en TMACC destaca el Consejo Superior de Investigaciones Científicas (CSIC) seguido de la Universidad Politécnica de Madrid y BSH Electrodomésticos España S.A. En patentes europeas de origen español, Siemens Gamesa se posiciona en primer lugar, seguida de General Electric Renovables España y Airbus Operations.

En general, el informe destaca la relevancia de la tecnología española en TMACC, especialmente en la producción de energía baja en carbono, y señala áreas de crecimiento, tendencias de desarrollo y retos futuros en la lucha contra el cambio climático.

Informe

PUBLICADO EL INFORME ANUAL DE SEGUIMIENTO DE CARTAS DE SERVICIOS DE LA OEPM 2023

Como en años anteriores, hemos publicado en la página web de la OEPM el informe anual de seguimiento de Cartas de Servicios correspondiente al año 2023.

Este informe se elabora, a petición de la Subdirección General de la Inspección General de Servicios y Relación con los Ciudadanos del Ministerio de Industria y Turismo, con el objetivo de recoger el seguimiento del cumplimiento de las cartas de servicios en relación con los compromisos establecidos tras la aprobación y renovación de las mismas, con el fin de dar respuesta a las necesidades y expectativas de la ciudadanía y a la demanda de transparencia en la actividad pública.

Desde que se regularon las Cartas de Servicios, en el ámbito de la Administración General del Estado, mediante el Real Decreto 951/2005, la Oficina Española de Patentes y Marcas, O.A. (OEPM) ha publicado ocho Cartas de Servicios, en las que se establecen compromisos con los usuarios en forma de estándares numéricos, tiempos de espera y plazos.

Las Cartas de Servicio constituyen uno de los pilares de las actuaciones del Programa de Calidad de la OEPM, siendo una importante herramienta de mejora continua.

Las Cartas de Servicios se encuentran disponibles para su consulta, a través de la página web de la OEPM, en español e inglés. Asimismo, los usuarios pueden consultar, también en la página web, los resultados mensuales actualizados del seguimiento de los compromisos de las cartas de servicio.

[Informe anual de seguimiento de cartas de servicios 2023](#)

[Cartas de servicios](#)

