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ЯПОНИЯ				
	<p>Япония З.№ JP2005344052-A МПК C09D-127/12; C09D-127/18; C09D-183/04; C09D-201/00</p>	<p>Заявитель DAIKIN KOGYO KK З. № JP167119 Пр-т 04 Июня 2004 Опубл. 15 декабря 2005</p>	1.	<p>SOLVENT-TYPE COATING-MATERIAL COMPOSITION FOR DOMESTIC ELECTRICAL APPLIANCE (БЫТОВЫЕ ЭЛЕКТРОПРИБОРЫ), CAMERA AND ELECTRONIC OFFICE EQUIPMENT, CONTAINS SPECIFIC AMOUNT OF BINDER POLYMER, POLYTETRAFLUOROETHYLENE PARTICLE, SILICONE OIL AND ORGANIC SOLVENT. The solvent-type coating-material composition contains a binder polymer, polytetrafluoroethylene particle, silicone oil and an organic solvent. Polytetrafluoroethylene particle (in mass parts) (5-30) and silicone oil (0.05-5) are present with respect to binder polymer. USE - For domestic electrical appliance, camera, electronic office equipment, cooking installation, motor vehicle components, furniture, mirror and health-care related equipment. ADVANTAGE - The solvent-type coating-material composition provides coating-film surface having excellent sliding property, transparency, wear resistance, stain resistance and chemical resistance. The coating film has reduced dynamic friction coefficient.</p>
	<p>Япония З. № 2005290133-A МПК C08F-002/50; C08F-290/04; C08K-005/00; C08K-005/101; C09D-004/00</p>	<p>Заявитель JSR CORP З. № JP105350 пр-т 31 Марта 2004 опубл. 20 Октября 2005</p>	2.	<p>ULTRAVIOLET CURING-TYPE LOW-REFRACTIVE INDEX MATERIAL COMPOSITION FOR ANTI-REFLECTIVE FILM, CONTAINS FLUOROPOLYMER, SPECIFIC (METH)ACRYLATE COMPOUND, AND PRESET AMOUNT OF PHOTOINITIATOR HAVING PRESET ABSORBANCY INDEX. Ultraviolet curing-type low-refractive index material composition (C) contains fluoropolymer, fluorine-containing (meth)acrylate compound with (meth)acrylol groups and/or polyfunctional (meth)acrylate compound with (meth)acrylol group(s), and preset amount of photoinitiator. Photoinitiator has absorbancy index of more than 5x10² ml/g.cm and 1x10² ml/g.cm or less at wavelength of 365 nm and 405 nm, respectively. USE - For highly durable cured material used as anti-reflective film (claimed) for display panels such as liquid crystal display panels, cold-cathode tube panels and plasma displays, and color filter used in lens portion of camera, screen display portion of television and liquid crystal displays. ADVANTAGE - The ultraviolet curing-type low-refractive index material composition has excellent hardenability and productivity. The anti-reflective film using the composition, has excellent scuffing resistance, coating property, durability, gauze-proof abrasiveness, alkali resistance, reflection prevention effect and color tone.</p>
	<p>Япония в.з. № 2005302341-A МПК H01M-002/16; H01G-009/00; H01G-009/02; H01M-002/18</p>	<p>Заявитель TOTSUKA H SUGIYAMA M ТАКАНАТА М ТОМОЕГАВА SEISHISHO КК З. № JP112702 Пр-т 07 Апреля 2004 Опубл. 29 Сентября 2005 Аналоги</p>	3.	<p>ELECTRONIC COMPONENT SEPARATOR FOR LITHIUM ION SECONDARY BATTERY, POLYMER LITHIUM SECOND BATTERY, COMPRISES RESIN STRUCTURE PROVIDED ON SIDE OF AND/OR INSIDE POROUS BASE NOVELTY - An electronic component separator comprises porous base made of a substance having a melting point of less than or equal to 180degreesC; and resin structure provided on one side of and/or inside the porous base. The resin structure comprises filler grain (2). USE - For lithium ion secondary battery, polymer lithium second battery, aluminum electrolytic capacitor or electric double-layer capacitor. ADVANTAGE - The invented electronic component separator provides minimal heat shrinkage even</p>

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		US2005208383-A1;		when overheated, and exhibits high reliability and excellent workability The resin composing the resin structure is made of polyvinylidene fluoride, vinylidene fluoride copolymer, polyacrylonitrile, acrylonitrile copolymer, poly(methyl methacrylate), methyl methacrylate copolymer, polystyrene, styrene copolymer, polyethylene oxide, ethylene oxide copolymer, polyimide amide, polyphenylsulfone, polyethersulfone, polyether etherketone or PTFE.
	Япония JP2005353496-A МПК H01M-004/86; H01M-004/88; H01M-004/92; H01M-008/02;	Заявитель TOYOTA JIDOSHA KK З. № JP174746 Пр-т 11 Июня 2004 Опубл. 22 Декабря 2005	4.	CELL MODULE FOR FUEL CELL, HAS CATHODE AT INNER SURFACE OF ION-EXCHANGE RESIN FILM, HAVING CARBON NANOTUBE SUPPORTING ELECTRODE CATALYST METAL ON NAFION LAYER COVERED BY POLYTETRAFLUORIDEETHYLENE LAYER HAVING WATER REPELLING PROPERTY. The cell module has a fluorine type ion-exchange resin film (11) with anode and cathode (13) at outer and inner surfaces. The cathode has a carbon nanotube (CNT) (31) supporting the electrode catalyst metal (32) on Nafion layer (33) covered by polytetrafluoroethylene (PTFE) layer (34) having water repelling property. USE - For fuel cell (claimed) e.g. solid polymer electrolyte fuel cell. ADVANTAGE - Enables smooth delivery of the electric charge between the anode and cathode, and thereby improving the electric power generation efficiency of the fuel cell.
	Япония В.з. № 2005163957-A МПК B22F-003/26; F04B-039/00; F16C-033/12; F16C-033/20; F16F-009/32	Заявитель TAIHO KOGYO CO LTD З. № JP405687 Пр-т 04 Декабря 2003 Опубл. 23 Июня 2005	5.	SLIDING MATERIAL FOR BUSH OF SHOCK ABSORBER, IS FORMED BY IMPREGNATING AND COATING COMPOSITION THAT CONTAINS POLYTETRAFLUOROETHYLENE, ON SURFACE OF POROUS METAL SINTERED LAYER FLESHED BY METAL BACKING A sliding material is formed by impregnating and coating a composition (C1) consisting of polytetrafluoroethylene (PTFE) containing crosslinked PTFE, on a surface of porous metal sintered layer fleshed by metal backing. USE - For shock absorber guide bush (claimed) for passenger car, and bush used for compressor. ADVANTAGE - The sliding material has excellent sliding characteristics. The bush of shock absorber using the sliding material, has excellent cavitation-proof property, foreign-material burying property, low-friction property, creep-proof property, rigidity, and abrasion resistance. Plastic deformation of crosslinked PTFE is prevented Polytetrafluoroethylene (PTFE) (in vol%) (99) and crosslinked PTFE (1) were mixed to obtain composition (C2). The composition (C1) was impregnated and coated on porous metal sintered layer formed on steel plate, and baked at 350-400degreesC, to obtain sliding material. The obtained sliding material had reduced friction coefficient and abrasion loss. The sliding material had favorable sliding characteristics.
	Япония В.з. № 2004323594-A МПК F01B-003/00; C09D-005/00; C09D-007/12; C09D-127/12	Заявитель MURASE H SHIMO T TOYOTA JIDOSHA KK З. № JP117475 Пр-т 22 Апреля 2003 Опубл. 18 Ноября 2004	6.	COMPOSITION USEFUL FOR PAINTING A SLIDING PART SUCH AS PARTS OF A COMPRESSOR, COMPRISES A SURFACE-MODIFIED FLUORO-RESIN POWDER AND A DISPERSION MEDIUM FOR DISPERSING THE FLUORO-RESIN POWDER. A paint composition comprises a surface-modified fluoro-resin powder and a dispersion medium for dispersing the fluoro-resin powder. The dispersion medium contains a heat-resistant resin and a solvent for dissolving the heat-resistant resin or a thermosetting resin in an uncured state. USE - For painting a sliding part such as a part of a compressor, a swash plate in a swash plate

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		Аналоги US2004221715-A1		<p>compressor, a shoe in a compressor, a sliding bearing for holding a drive shaft in a compressor, a rotary valve in a piston compressor and a piston in a piston compressor (Claimed).</p> <p>ADVANTAGE - The paint composition improves the sliding properties of resin layers containing fluoro-resin powder by improving the wettability and adhesiveness of the fluoro-resin particles. The paint composition therefore forms coating films with improved seizure resistance and wear resistance.</p> <p>DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a sliding part comprising a sliding surface formed of a resin layer containing a surface-modified fluoro-resin powder and a heat-resistant resin.</p> <p>A polytetrafluoroethylene (PTFE) powder surface-modified using plasma treatment, having an average primary particle diameter of 0.1 microns was compounded with polyamide imide varnish, stirred well, and mixed to prepare a paint composition containing (wt.%) polyamide imide (60) and PTFE (40). The paint composition was applied to a degreased plate (base material) of A 390 (RTM; an aluminum alloy) and baked at 200degreesC for 60 minutes. Thus a sample having a resin layer of a thickness of 25 microns on the plate was obtained. A comparative sample having a resin layer of a thickness of 25 microns on the plate was obtained in the same manner except that PTFE powder surface-modified using plasma treatment, having an average primary particle diameter of 0.1 microns was substituted by PTFE powder the surface of which was not modified, having an average primary particle diameter of 0.1 microns. The test/comparative sample showed time (seconds) until seizure of 228/187.!</p> <p>From the results obtained it was found that the test resin powder required a longer time until seizure occurred than the comparative samples. These results suggested that the surface modification of the test fluoro-resin powder provided improved lubricant properties.</p>
	Япония В.з. № 2004277565-A МПК C09D-005/44; C09D-007/12; C09D-127/12; C09D-163/00; C25D-013/10	Заявитель NIPPON PAINT CO LTD DOW CORNING KK З. № JP071030 Пр-т 14 Марта 2003 Опубл. 07 Октября 2004	7.	<p>CATION ELECTRODEPOSITION-COATING-MATERIAL COMPOSITION USED FOR SLIDING COMPONENTS, CONTAINS PRESET AMOUNT OF FLUORORESIN MICROPARTICLES AND TITANATE OR FERROMANGANESE MICROPARTICLES WITH RESPECT TO AMINE MODIFIED EPOXY RESIN MODIFIER.</p> <p>Cation electrodeposition-coating-material composition comprises (in mass parts) fluoro-resin microparticles (1-65) and titanate microparticles or ferromanganese microparticles (1-30) with respect to total solid content (100) of amine modified epoxy resin and hardener.</p> <p>USE - For sliding component (claimed) such as motor, bearing, motor vehicle engine, break drum for motor vehicles and other sliding components.</p> <p>ADVANTAGE - The cation electrodeposition-coating-material composition has low friction property stabilized over long period of time and forms a coating film having excellent abrasion resistance. The addition of carbon microparticles decreases the abrasion degree of the sliding component. The coating film when formed on rotation bearing motor prevents rotation non-uniformity and noise production.</p>
	Япония з. № JP2004314512-A МПК B29C-059/16; C08J-007/00	Заявитель NTT ADVANCE TECHNOLOGY KK з. № JP113405 пр-т 17 Апреля 2003	8.	<p>THIN-FILM PROCESSING METHOD COMPRISES AFFIXING FILM ON SAMPLE STAND BY PRESSURIZING FILM USING PRESSURIZING ROLLER AND FORMING PATTERNS ON FILM BY HIGH ENERGY IRRADIATION WITH RESPECT TO FILM.</p> <p>A thin-film made of tetrafluoroethylene polymer (1) is positioned on the surface of a flat sample stand (2) and subjected to tractive force. The film is affixed to the stand with high effective adhesive power by</p>

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		опубл 11 Ноября 2004		<p>pressurizing the film using pressurizing roller (5) and the patterns are formed on the film by high energy irradiation with respect to the film.</p> <p>USE - For processing film made of tetrafluoroethylene (TFE) polymer such as copolymer of poly-tetrafluoroethylene (PTFE), tetrafluoroethylene and hexafluoropropylene and co-polymer of tetrafluoroethylene and perfluoro vinyl ether.</p> <p>ADVANTAGE - Since the film is affixed to a flat-surfaced sample stand, the possibility of forming fine patterns is increased effectively and hence reduces the influence with respect to the environmental change of temperature.</p>
	<p>ЯПОНИЯ В.з. № 2004047181-А</p> <p>МПК H01B-005/10; H01B-007/00; H01B-011/22; H01B-013/00</p>	<p>Заявитель FUJIKURA LTD З. № JP200388 Пр-т 09 Июля 2002 Опубл. 12 Февраля 2004</p>	9.	<p>CORROSION-RESISTANT WIRE OF OVERHEAD POWER LINE, IS OBTAINED BY TWISTING TOGETHER STRAND IN WHICH WATER REPELLENT COATING MATERIAL IS APPLIED TO CIRCUMFERENCE OF STEEL CENTERED</p> <p>NOVELTY - A corrosion-resistant wire is obtained by twisting together the strand (1) in which water repellent coating material (3) is applied to the circumference of steel centered.</p> <p>USE - As corrosion-resistant wire of overhead power line.</p> <p>ADVANTAGE - The wire has excellent anticorrosion effect maintained for a long period of time.</p> <p>DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for manufacture of corrosion-resistant wire.</p> <p>DESCRIPTION OF DRAWING(S) - The figure shows the cross sectional view of structure of the composite twisted wire as corrosion-resistant wire. (Drawing includes non-English language text). strands (1,2) water-repellent film (3).</p>
	<p>Япония В.з. № 2004175015-А МПК B05D-005/12; B05D-007/14; B05D-007/24; B32B-015/08</p>	<p>Заявитель SUMITOMO DENKO FINE POLYMER KK З. № JP345857 Пр-т 28 Ноября 2002 Опубл. 24 Июня 2004</p>	10.	<p>FLUORORESIN FILM COATING MATERIAL FOR HEAT COOKING CONTAINERS SUCH AS ELECTRIC COOKER, HAS COATING LAYER CONTAINING POWDER THAT GENERATES PIN HOLES AND HAS SPECIFIC ELECTRIC QUANTITY, DISPERSED IN FLUORORESIN.</p> <p>A fluoro-resin film coating material (1) has a coating layer (3) containing powder (P) in fluoro-resin, formed on fine corrugated surface of a metal base material (2). The powder generates pin holes (5), and has electric quantity measured by pin hole electric test at 30 V of 60-300 mA/90000 mm².</p> <p>USE - For containers used for heat cooking such as common cooking vessels including electrical cooking vessels such as auto-bakery, frying pan, electric cooker and hot plates.</p> <p>ADVANTAGE - The fluoro-resin film coating material generates pin holes actively, prevents corrosion of metal plates, and suppresses generation of pitting or swelling on the coating layer. The container made from the fluoro-resin coating material has excellent appearance, and is inexpensive.</p> <p>DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for container made of above fluoro-resin film coating material.</p>
	<p>Япония в.з. № JP2004204073-А МПК</p>	<p>Заявитель DAIKIN KOGYO KK З. № JP375512</p>	11.	<p>COATING COMPOSITION FOR FORMATION OF COATING FILMS, CONTAINS AQUEOUS DISPERSION CONTAINING HEAT-RESISTANT RESIN, FLUOROPOLYMER AND SPECIFIC AMOUNT OF NON-ALKYL PHENOL TYPE NON-IONIC SURFACTANT.</p>

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	C09D-005/00; C09D-005/02; C09D-127/12; C09D-171/02; C09D-179/08; C09D-181/06; C09D-201/00	Пр-т 25 Декабря 2002 Опубл. 22 Июля 2004		<p>A coating composition contains an aqueous dispersion containing a heat-resistant resin, a fluoropolymer and a surfactant. The surfactant is a non-alkyl phenol type non-ionic surfactant present in an amount of 0.1-20 mass parts with respect to 100 mass parts of fluoropolymer.</p> <p>USE - As primer composition (claimed) for formation of coating films on food containers, cooking appliances such as frying pan, rice cooker and pressure cooker, electrical components, industrial spare parts such as kneading roll, conveyor hopper, food manufacturing apparatus, decorative boards, and office automation apparatus.</p> <p>ADVANTAGE - The coating composition has excellent mechanical stability and shelf life. The coating film formed from the coating composition has excellent adhesion property with respect to material to be coated.</p>
	Япония з. № JP2003532600 МПК C09D-127/12; C09D-181/04; B05D-007/24	Заявитель DAIKIN IND LTD з. № JP532600 пр-т 30 августа 2002 опубл 13 января 2005 Аналоги WO2003029370-A1	12.	<p>COATING COMPOSITION FOR COATING IRON AND STAINLESS STEEL CONTAINS TERMINAL-MODIFIED POLYALKYLENE SULFIDE RESIN HAVING ARYL GROUPS OR THIOL-ARYLENE GROUPS AT POLYMER TERMINAL, AND FLUOROPOLYMER.</p> <p>Coating composition contains a terminal-modified polyalkylene sulfide resin having aryl groups or thiol-arylene groups at the polymer terminal, and a fluoropolymer.</p> <p>USE - The material can be used for coating iron and stainless steel.</p> <p>A terminal-modified polyphenylene sulfide aqueous dispersion is obtained by mixing 100g terminal modified PPS of number average molecular weight 29000 ground to an average particle size of 10µm, 20g of polyoxyethylene dodecyl ether (HLB = 16.3) as a nonionic surfactant, 2.5g of 2,4,7,9-tetramethyl-5-decyne-4,7-diol, 2.5g of 2-ethylhexanol and 375g of deionized water, and grinding. A composition of a primer coating is obtained by forming a PTFE particle aqueous dispersion containing 6 weight parts polyether nonionic surfactant per 100 weight parts PTFE solids, and mixing with 90.2 parts deionized water, 6.24 parts polyether nonionic surfactant, and 31.1 parts carbon. The coating composition is obtained by mixing 98.84 parts PPS dispersion, 100 parts PTFE dispersion, 6.59 parts aqueous pigment dispersion, 1.68 parts ammonium fluorocarboxylate as a dispersion stabilizer, 1.39 parts polyoxyethylene nonylphenyl ether as dispersion stabilizer, 0.40 parts methyl-cellulose as thickener, 0.63 parts of 2,4,7,9-tetramethyl-5-decyne-4,7-diol and nonionic surfactant as defoaming agent and 26.02 parts of deionized water.</p>
	Япония в.з. № JP2003278757-A МПК F16C-033/00; F16C-033/12; F16C-033/14	Заявитель DAIDO METAL CO LTD DAIDO METAL KOGYO KK з. № JP084890 Пр-т 26 Марта 2002 Аналоги GB2386929-B; US6866421-B2	13.	<p>PLAIN BEARING FOR INTERNAL COMBUSTION ENGINES INCLUDES BACKING ALLOY MADE OF COPPER OR ALUMINUM ALLOY, COATING LAYER OF SYNTHETIC RESIN ON THE BACKING ALLOY SURFACE, AND THIN FILM OF POLYTETRAFLUOROETHYLENE ON THE COAT LAYER SURFACE.</p> <p>A plain bearing (1) comprises a backing alloy (2) made of copper alloy or aluminum alloy, a coat layer (3) of synthetic resin formed on the surface of the backing alloy, and a thin film (4) of polytetrafluoroethylene formed on the coat layer surface.</p> <p>USE - For internal combustion engines.</p> <p>ADVANTAGE - The invention has reduced coefficient of friction and improved conformability and anti-seizure characteristics. It also has improved wear resistance and friction property and can be used in high loading condition.</p>

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	Япония в.з. № JP2004115577-A МПК С10М-161/00; С08J-005/16; С08L-027/18; F16C-033/12	Заявитель DAIDO METAL CO LTD DAIDO METAL KOGYO KK з. № JP277290 Пр-т 24 Сентября 2002 Опубл. 15 Апреля 2004 Аналоги US2004058828-A1; DE10340427-A1; GB2393963-B	14.	SLIDING COMPOSITION FOR PRODUCING SLIDING MEMBER, COMPRISES THERMOSETTING RESIN, POLYTETRAFLUOROETHYLENE, AND BISMUTH AND/OR BISMUTH ALLOY. NOVELTY - A sliding composition comprises thermosetting resin (50-80 vol.%), PTFE (10-40 vol.%), and bismuth and/or bismuth alloy (1-20 vol.%) and/or alkaline earth metal salt (1-20 vol.%). The PTFE has a molecular weight of at least 3 x 10 to the power 6. USE - For use in producing sliding member by coating on a substrate. ADVANTAGE - The inventive composition exhibits excellent wear resistance and frictional properties even when used at high PV value.
	ЯПОНИЯ в.з. № 2003257631-A МПК B05D-001/02; B05D-003/12; H05B-033/10; H05B-033/14	Заявитель SANYO ELECTRIC CO LTD з. № JP053081 пр-т 28 02 2002 опубл. 12 09 2003	15.	ORGANIC ELECTROLUMINESCENCE ELEMENT FORMATION METHOD FOR DISPLAY DEVICE, INVOLVES SPRAYING ORGANIC SOLVENT ON SUBSTRATE IN VACUUM ATMOSPHERE, TO FORM ELECTROLUMINESCENCE FILMS WITH DIFFERENT ELECTRIC CARRIER MOBILITIES The polyvinyl carbazole (PVK) and polymer assembly technology (PAT) type electroluminescence (EL) films with different electric carrier mobilities, are formed on a substrate (14) by spraying organic solvent such as toluene on surface of the substrate in vacuum atmosphere. USE - For forming organic electroluminescence (EL) element for flat display device, color display device of information technology equipment, also used for illumination device. ADVANTAGE - The luminous efficiency is increased, by forming two layers of electroluminescence films to form a multilayered structure in vacuum spraying process, hence operation efficiency of display is improved even at low voltage.
	ЯПОНИЯ з. № 2003201556 МПК C23C14/12 ; B05D3/10 ;	Заявитель ULVAC CORP з. № JP20020004393 пр-т 2002-01-11 опубл. 2003-07-18	16.	<u>VACUUM COLORING APPARATUS</u> Реферат недоступен
	ЯПОНИЯ з. № 2003007462 МПК H05B33/10 ; C23C14/12	Заявитель EASTMAN KODAK CO з. № JP20020115916 пр-т 2002-04-18 опубл. 2003-01-10	17.	<u>ORGANIC LAYER VACUUM EVAPORATION EQUIPMENT</u> Реферат недоступен
	ЯПОНИЯ з.№ 2004014311 МПК H05B33/10 ; C23C14/12	Заявитель з.№ JP20020166522 пр-т 2002-06-07 опуб 2004-01-15 Аналог WO03104520 (A1)	18.	<u>METHOD FOR FORMING ORGANIC THIN FILM</u> A method for forming an organic thin film of uniform quality in a substrate surface without heating the film forming surface. A gas (film forming component gas) (g2) is produced by vaporizing a single film-forming component of an organic material and transported and supplied into a processing chamber (11) where a substrate (W) is placed. The organic material holding the film-forming component is deposited on the substrate (W) in the processing chamber (11) to form an organic thin film. During the deposition of the organic material, the substrate (W) is kept cooled. The film-forming component gas (g2) is transported and supplied into the processing chamber (11) by a carrier gas such as an inert gas (g1). By repeating such

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				deposition of an organic material, a multilayer of organic thin films of different film-forming materials is formed.
	ЯПОНИЯ з. № 2003272842 МПК H05B33/10 ; C23C14/12	Заявитель DENSO CORP; TOYOTA CENTRAL RES & DEV з. № JP20020076095 пр-т 2002-03-19 опубл. 2003-09-26	19.	ORGANIC EL ELEMENT AND MANUFACTURING METHOD OF THE SAME Problem to be solved: To provide an organic EL element formed by laminating a plurality of organic layers deposited by vacuum evaporation, restrained from generation of dark spot and breakage of the EL element. SOLUTION: For the organic EL element deposited by laminating a plurality of organic layers 30-60 formed into films by vacuum evaporation, the plurality of organic layers 30-60 include films 40, 50 composed of a fusible material fusing when evaporated. The height and density of protrusions on the surface of the film 40, 50 composed of fusible material are less than 25 nm, and 30 pieces/100 μm^2 , respectively.
	Япония з. № 2003229257 МПК H05B33/10; C23C14/12; C23C14/24	Заявитель EASTMAN KODAK CO з. № JP20020343767 пр-т 2002-11-27 опубл. 2003-08-15 Аналоги EP1316625 (A1) US2003101937 (A1)	20.	THERMOPHYSICAL EVAPORATION SOURCE Problem to be solved: To form a substantially uniform organic layer on a structure. SOLUTION: A thermophysical evaporation source, evaporating solid organic material when forming an organic light emitting device (OLED) on the structure comprises a bias heater, an electrically insulated container arranged inside the bias heater, and an evaporation heater arranged inside the container. The substantially uniform organic layer can be formed on the structure by making the structure relatively move against the evaporation source
	Япония з. № JP2003264065 МПК H05B33/10; C23C14/12;	Заявитель ULVAC JAPAN LTD з. № JP20020061544 пр-т 2002-03-07 опубл. 2003-09-19	21.	ORGANIC THIN-FILM FABRICATING METHOD PROBLEM TO BE SOLVED: To provide technology by which an organic thin-film, from which light can be emitted, can be formed within one set of a vacuum chamber. SOLUTION: The organic thin film 10 is formed, after arranging a first and a second organic materials for vacuum evaporation in the vacuum chamber, by changing continuously the content of each material for vacuum evaporation. After forming the first organic thin-film 1 by making the first organic material for vacuum evaporation, which has a hole transport property, contain so much, a luminous layer 3, which contains almost the same weight of the first and second organic materials for vacuum evaporation, a third organic material for vacuum evaporation used as a color coupler, is formed by changing the ratio of the first and second organic materials for vacuum evaporation. By changing again the ratio of the first and second organic materials for vacuum evaporation, a second organic thin-film 5, which has a hole transport property, is formed. By laminating three kinds of layers within the same vacuum chamber, the light-emitting organic thin-film 10 can be obtained.
	Япония з. № JP2003077662 МПК H05B33/10	Заявитель KIDO I з. № JP20020178461 пр-т 2002-06-19 опубл. 2003-03-14	22.	METHOD AND DEVICE FOR MANUFACTURING ORGANIC ELECTROLUMINESCENT ELEMENT PROBLEM TO BE SOLVED: To solve problems in a conventional manufacturing device that accurate control of a component ratio changing in the direction of thickness of a film is difficult and production of uniform products is impossible because, for example, a difference in light emitting colors occurs in each product. SOLUTION: A manufacturing method for an organic electroluminescent element having an inclined organic layer composed of a plurality of organic compounds of at least one layer between opposing anode electrode

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				and cathode electrode and having different mixture ratios in the direction of thickness is provided to manufacture the inclined organic layer by moving a substrate 11 relatively for a plurality of evaporation sources 3 of the organic compound arranged across a partition plate 5 in the same vacuum film formation chamber 2. Moreover, a manufacturing device 1 for the organic electroluminescent element is provided to enable accurate control of a component ratio.
	Япония з. № 2004204073-А МПК С09D-005/00; С09D-005/02; С09D-127/12;	Заявитель DAIKIN KOGYO KK з. № JP375512 Пр-т 25 Декабря 2002 Опубл. 22 Июля 2004	23.	COATING COMPOSITION FOR FORMATION OF COATING FILMS, CONTAINS AQUEOUS DISPERSION CONTAINING HEAT-RESISTANT RESIN, FLUOROPOLYMER AND SPECIFIC AMOUNT OF NON-ALKYL PHENOL TYPE NON-IONIC SURFACTANT. NOVELTY - A coating composition contains an aqueous dispersion containing a heat-resistant resin, a fluoropolymer and a surfactant. The surfactant is a non-alkyl phenol type non-ionic surfactant present in an amount of 0.1-20 mass parts with respect to 100 mass parts of fluoropolymer. USE - As primer composition (claimed) for formation of coating films on food containers, cooking appliances such as frying pan, rice cooker and pressure cooker, electrical components, industrial spare parts such as kneading roll, conveyor hopper, food manufacturing apparatus, decorative boards, and office automation apparatus. ADVANTAGE - The coating composition has excellent mechanical stability and shelf life. The coating film formed from the coating composition has excellent adhesion property with respect to material to be coated.
	Япония з. № JP2002241924 МПК С23С14/04; С23С14/12; H05В33/10	Заявитель ULVAC JAPAN LTD з. № JP20010042634 пр-т 2001-02-20 опубл. 2002-08-28	24.	ALIGNMENT APPARATUS AND ORGANIC VAPOR DEPOSITION SYSTEM USING THE APPARATUS PROBLEM TO BE SOLVED To provide an organic vapor deposition system by which an organic thin film capable of color display can be deposited in one vacuum tank. SOLUTION: In the organic vapor deposition system 2, an alignment apparatus 20 is arranged at the upper position of organic vapor deposition sources 51 to 53 in a vacuum tank 11. A mask 3 is arranged at the inside of the alignment apparatus 20. A substrate 8 can be arranged in the upper direction of the mask 3. Further, an observation apparatus is arranged at the inside of the vacuum tank 11. When the mask 3 and the substrate 8 are observed by the observation apparatus, and is relatively moved by a moving apparatus, the mask 3 and the substrate 8 can be aligned. Further, in the deposition of an organic thin film corresponding to three primary colors in the vacuum tank 11, when the mask 3 and the substrate 8 are relatively moved every deposition of the organic thin film, the organic thin film corresponding to three primary colors can closely be arranged on the surface of the substrate 8. As a result, an organic EL display capable of color display can be produced
	Япония з. № JP2002327750-А МПК F16C-033/12; F16C-	Заявитель NTN CORP з. № JP132802 пр-т 27 Апрель 2001	25.	MULTILAYER BEARING FOR HOUSEHOLD ELECTRIC APPLIANCES, HAS AN IMPREGNATION COATING LAYER FORMED ON A POROUS LAYER OF METAL BACKING, USING A COMPOSITION CONTAINING POLYTETRAFLUOROETHYLENE RESIN AND AN INORGANIC FILLER.

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	033/20	опубл 15 Ноябрь 2002		<p>The multilayer bearing (1) has porous layer (3) formed on the surface of a metal backing (2) and an impregnation coating formed on the porous layer using the impregnation coating composition (4). The coating composition contains polytetrafluoroethylene resin as main component with average particle diameter of 1-50 μm, and an inorganic filler.</p> <p>USE - As multilayer bearing for automobile components and household electric appliances.</p>
	<p>Япония з. № JP2002241925 МПК C23C14/04; C23C14/00; C23C14/12;</p>	<p>Заявитель ULVAC JAPAN LTD з. № JP20010044691 пр-т 2001-02-21 опубл. 2002-08-28</p>	26.	<p>ORGANIC VAPOR DEPOSITION SYSTEM, AND ORGANIC THIN FILM MANUFACTURING METHOD</p> <p>PROBLEM TO BE SOLVED: To provide a technology for cleaning masks.</p> <p>SOLUTION: A reflecting means 21 is disposed in a vacuum chamber 3 to make it reflect the laser beam emitted from a laser beam generator 27 and irradiate a mask 10 with the reflected laser beam. An organic thin film adhering to the surface of the mask 10 is evaporated and removed. The resultant vapor is exhausted out of the vacuum chamber 3 by a vacuum pumping system 52. In this way, cleaning can be carried out without removing the mask 10.</p>
	<p>Япония з. № JP2002285320 МПК C23C14/12; C08G18/32; C08G85/00</p>	<p>Заявитель FUKUSHIMA PREFECTURE з. № JP20010089918 пр-т 2001-03-27 опубл. 2002-10-03</p>	27.	<p>METHOD FOR DEPOSITING ORGANIC HIGH POLYMERIC THIN FILM</p> <p>PROBLEM TO BE SOLVED: To easily deposit a dense high polymeric thin film which has been polymerized in a stoichiometric compositional ratio, is effective as an electronic base material having stable characteristics, and has high purity and uniform film thickness, when two or more kinds of raw material monomers are evaporated in a vacuum chamber to deposit a high polymeric thin film on a substrate by polymerization reaction, in the case there is a difference in the vapor pressure between the individual raw material monomers to be reacted, or in the case there is a difference in the evaporation temperature between the respective raw material monomers.</p> <p>SOLUTION: Two or more kinds of raw material monomers are respectively individually evaporated in a vacuum chamber to deposit a laminated film of the raw material monomers on a substrate. After that, the laminated film of the raw material monomers is heated and polymerized in a vacuum, or in the air, or in a gaseous atmosphere, so that an organic high polymeric thin film of a single layer or of a plurality of layers is deposited on the substrate.</p>
	<p>Япония з. № JP2002281767 МПК</p>	<p>Заявитель TOTO LTD з. № JP20010082782 пр-т 2001.03.22 опубл. 2002-09-27</p>	28.	<p>MANUFACTURING METHOD OF ELECTROSTATIC ACTUATOR</p> <p>PROBLEM TO BE SOLVED: To provide the manufacturing method of electrostatic actuators for achieving high thrust.</p> <p>Solution: The manufacturing method of electrostatic actuators includes a substrate, a plurality of strip electrodes formed on the substrate surface, and an insulating covering formed for covering the substrate and the strip electrodes. In the method, at least two kinds of raw material monomer for forming the insulating covering in a vacuum treatment chamber is vaporized, the raw material monomer is deposited and polymerized onto the surface of the substrate and the strip electrodes, and heat treatment is made, thus forming the insulating covering.</p>
	Япония	Заявитель	29.	ORGANIC EL ELEMENT MANUFACTURING EQUIPMENT

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	3. № JP2003115379 МПК H05B33/10; C23C14/12; C23C14/24;	KIKO KENJI KAGI KOFUN YUGENKOSHI з. № JP20010298706 пр-т 2001-09-28 опубл. 2003-04-18		PROBLEM TO BE SOLVED: To provide evaporation cell supplement equipment of organic EL element manufacturing equipment, which can reduce the manufacturing cost of the organic EL elements by improving the operation efficiency of the manufacturing equipment by filling up the evaporation cells, while maintaining the vacuum of a vacuum chamber without stopping operation of the equipment SOLUTION: The evaporation cell 4 is installed in a conveyance stand 63 accommodated in a supplement tub 61. The supplement tub 61 is intercepted in airtight to the exterior and the vacuum chamber 2, and it becomes possible to be vacuumed again. When a gate valve 84 is opened and a passage 69, which is between the supplement tub 61 and the vacuum chamber 2 is opened, the conveyance stand 63 is carried horizontally to an advanced position in the vacuum chamber 2 from a charge position in the supplement tub 61 by the operation of a driving mechanism 70, which has a rack 74 and a pinion 73. A fitting part 21 of a drive means 5, which operates in the direction of length, fits to the evaporation cell 4 installed in the conveyance stand 63, and it can move to a heating position or a cooling position
	Япония 3. № JP2003003250 МПК C23C14/12; C08G85/00	Заявитель ALPS ELECTRIC CO LTD з. № JP20010188990 пр-т 2001-06-22 опубл. 2003-01-08	30.	VACUUM DEPOSITION POLYMERIZATION SYSTEM AND METHOD FOR DEPOSITING ORGANIC FILM USING THE SYSTEM PROBLEM TO BE SOLVED: To provide a vacuum deposition polymerization system by which the sticking of dust blown up within a chamber to one side of the object to be deposited is prevented, and an organic film of high quality can be deposited on one side of the object to be deposited, and a method for depositing an organic film using the same system. SOLUTION: The vacuum deposition polymerization system is provided with a chamber B capable of exhausting the air at the inside to the outside, and making a vacuum state, gas generators 14a and 14b capable of gassing monomers, gas introduction tubes 15a and 15b introducing the monomer gas gassed at the gas generators 14a and 14b into the chamber B, and a substrate 11 as the object to be deposited on which an organic film is vapor-deposited by the diffusion of the monomer gas within the chamber B. In the chamber B, in a state where the substrate 11 is tilted at a prescribed tilt angle C, and one side 11a of the substrate 11 is made downward, the organic film is vapor-deposited on the substrate 11.
	Япония 3. № 2003160857 МПК C23C14/24; C23C14/12; H05B33/10;	Заявитель MATSUSHITA ELECTRIC IND CO LTD з. № JP20010360553 пр-т 2001-11-27 опубл.2003-06-06	31.	VAPOR DEPOSITION APPARATUS, THIN-FILM FORMING METHOD AND DISPLAY DEVICE USING THEM PROBLEM TO BE SOLVED: To solve such a problem in vapor deposition that a vapor deposited film is hardly stabilized because of an unstable deposition rate (vapor generation quantity) caused by temperature change or a material to be deposited. SOLUTION: A thin-film forming method comprises a step of heating the vapor deposition material 7 on the surface of a heat resistant sheet 2, by contacting the heat resistant sheet 2 which holds the vapor deposition material thereon, with a heating part, to evaporate the material, and a step of moving the heat resistant sheet 2 and a contacting region of the heating part 4 at a fixed speed, to control thickness and quality of the thin-film formed by the material depositing on the substrate surface, through controlling the moving speed of the heat resistant sheet 2 and the contacting region of the heating part 4.
	Япония	Заявитель	32.	METHOD AND SYSTEM FOR MANUFACTURING THIN FILM

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	3. № 2003155553 МПК С23С14/12; С23С14/24	MATSUSHITA ELECTRIC IND CO LTD з. № JP20010350571 пр-т 2001-11-15 опубл. 2003-05-30		PROBLEM TO BE SOLVED: To provide a method and a system for manufacturing a thin film having excellent surface characteristics with superior productivity. SOLUTION: In the thin film manufacturing method where a resin material is evaporated in vacuum and allowed to deposit on a substrate, the resin material is previously deformed under a reduced-pressure atmosphere and then introduced into a vacuum and, further, the defoaming is performed while heating the resin material, agitating the resin material, regulating the degree of vacuum, or introducing gas into the resin material. The thin film manufacturing system has a vacuum chamber, a feeding device for feeding resin material into the vacuum chamber, an evaporation system for evaporating the resin material and a substrate for the deposition of the evaporated resin material thereon and the resultant deposition of a thin resin film thereon and is provided with a means of previously defoaming the resin material.
	ЯПОНИЯ з. № 2003229257 МПК H05B33/10 ; С23С14/12	Заявитель EASTMAN KODAK CO з. № 2003229257 опубл. 2003-08-15	33.	<u>THERMOPHYSICAL EVAPORATION SOURCE</u> Реферат недоступен
	ЯПОНИЯ з. № 2003257635 МПК H05B33/10 ; С23С14/12	Заявитель SANYO ELECTRIC CO з. № 2003257635 опубл. 2003-09-12	34.	<u>THIN-FILM FORMING METHOD</u> Реферат недоступен
	ЯПОНИЯ з. № 2003257649 МПК H05B33/10 ; С23С14/12	Заявитель SANYO ELECTRIC CO з. № 2003257649 опубл. 2003-09-12	35.	<u>METHOD OF MANUFACTURING ORGANIC ELECTRO-LUMINESCENCE ELEMENT</u> Реферат недоступен
	ЯПОНИЯ з. № 2003249359 МПК H05B33/10 ; С23С14/12	Заявитель EASTMAN KODAK CO з. № 2003249359 опубл. 2003-09-05	36.	<u>ORGANIC LAYER MANUFACTURING METHOD</u> Реферат недоступен
	ЯПОНИЯ з. № 2003264065 МПК H05B33/10 ; С23С14/12	Заявитель ULVAC CORP з. № 2003264065 опубл. 2003-09-19	37.	<u>ORGANIC THIN-FILM FABRICATING METHOD</u> Реферат недоступен
	Япония з. № JP2002285320-A МПК	Заявитель FUKUSHIMA KEN з. № JP089918	38.	THIN ORGANIC POLYMER FILM FORMATION METHOD FOR SEMICONDUCTOR COMPONENT, involves forming single or multilayered film by evaporating monomers and heating film under vacuum or gas or air atmosphere. A single or multilayered polymer film is formed on a substrate by evaporating

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	C08G-018/32; C08G-073/10; C08G-085/00; C23C-014/12; H01L-021/312	пр-т 27 03 2001 опубл. 03 10 2002		different types of raw material monomers independently in a vacuum chamber (1). The film is heated to polymerize the film under vacuum, air or gas atmosphere. USE - For forming thin organic polymer film on semiconductor component such as plastic capacitor. ADVANTAGE - Ensures precise film formation with uniform thickness and high purity by maintaining individual steam pressure of monomer and avoiding direct reaction with substrate.
	ЯПОНИЯ з.№ 2002069013 МПК C07C15/60 ; C07C13/70	Заявитель KOREA RES INST CHEM TECHNOL з. № JP20010171926 пр-т 2001-06-07 опубл. 2002-03-08 Аналоги US6682782 (B2) EP1170273 (B1)	39.	<u>ACETYLENE GROUP-CONTAINING ORGANIC COMPOUND, METHOD FOR VACUUM DEPOSITION POLYMERIZATION THEREOF, VACUUM DEPOSITION-POLYMERIZED THIN FILM THEREFROM AND ELECTROLUMINESCENT ELEMENT USING THE THIN FILM</u> PROBLEM TO BE SOLVED: To provide an acetylene group-containing organic compound easily polymerizable by low-temperature heat or ultraviolet irradiation, to provide a method for vacuum deposition polymerization of the organic compound enabling organic thin film of uniform thickness to be obtained without producing any radial and byproduct, to provide such thin film increased in thermal stability through the above method, and to provide electroluminescent elements using the above thin films. SOLUTION: The 1st objective method for vacuum deposition polymerization comprises producing organic thin film by polymerization of an aromatic compound or polycyclic aliphatic compound having at least one acetylene group under a vacuum by heat treatment or ultraviolet irradiation either simultaneously with a vapor deposition or following the vapor deposition, to provide the thin film produced by the above method, and to provide electroluminescent elements each with at least one layer of the above thin film. The thin film thus obtained, which has a uniform thickness and high thermal stability and enables, as necessary, a pattern formation, is applicable to the interlaminar electrical insulation thin films of semiconductors, electroluminescent elements, solar cells, copiers, laser printers, etc.
	ЯПОНИЯ в.з. № 2002352609-А МПК	Заявитель FINE RUBBER KENKYUSHO KK з. № JP159109 пр-т 28- 05- 2001 опубл. 06 12 2002	40.	TRANSPARENT COATING MATERIAL FOR LED, has organic or inorganic thin film provided on surface of coating layer formed on LED NOVELTY - An organic or inorganic thin film is provided on the surface of a coating layer (2) formed on a LED (1), using sputtering technique, vapor deposition method such as CVD method or ion-plating method. USE - For light source such as light emitting diode (LED), etc. ADVANTAGE - Prevents precipitate formation on the surface of the coating layer and also prevents peeling of the coating layer effectively.
	ЯПОНИЯ в.з. № 2003034872-А МПК C23C-016/509; G03G-005/08; H01L-021/205	Заявитель CANON KK (CANO) з. № JP221764 пр-т 23 -07 -2001 опубл. 07 02 2003	41.	VACUUM PROCESSING METHOD FOR FILM FORMING IN SEMICONDUCTOR DEVICE, involves adjusting peak power values of two high frequency power within preset range applied to electrodes to satisfy preset equation frequency power within preset range applied to the electrodes are adjusted to satisfy the preset equation $0.1 \text{ at } \text{most } P_2 \text{ divide } (P_1 + P_2) \text{ at } \text{most } 0.9$. USE - For film formation, etching in semiconductor device, electrophotographic photoreceptor, line sensor, photography device, photovoltaic device, vacuum process apparatus, using high frequency electric power. ADVANTAGE - Increases vacuum processing speed. Reduces vacuum processing cost. Prevents adhesion of foreign material to processed object. Increases uniformity of vacuum processing property. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for vacuum processing device.

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	<p>ЯПОНИЯ в.з. № 2003168644-А МПК B05C-009/12; B05C-011/00 B05C-011/08; B05D-001/40; B05D-003/00</p>	<p>Заявитель TOKYO ELECTRON LTD з. № JP285482 пр-т 19- 09- 2001 опубл. 13 06 2003</p>	43.	<p>COATING FILM FORMATION PROCESSING parameters determination method in semiconductor device manufacture, involves determining substrate temperature, solvent evaporation time during film formation under vacuum condition. The scanning pitch and discharge liquid flow amount are calculated and the liquid having calculated solid content concentration is coated on substrate using optimal diameter nozzles. The optimal substrate temperature solvent evaporation time, gap of liquid distributor and substrate are then calculated during evaporation of solvent under reduced pressure in a vacuum condition. USE - For determining coating film formation processing parameters during coating liquids such as resist liquid on substrate such as semiconductor wafer and liquid crystal display (LCD) glass substrate in the manufacture of a semiconductor device, LCD. ADVANTAGE - Setting operation of the processing parameter is easier for obtaining high uniformity film thickness on the substrate. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for coating film forming apparatus.</p>
	<p>ЯПОНИЯ в.з. № 2003187959-А МПК H05B-033/04; H05B-033/14</p>	<p>Заявитель SELLBACK KK з. № JP380053 пр-т 13 -12- 2001 опубл. 04 07 2003</p>	44.	<p>PROTECTIVE COAT FOR ORGANIC ELECTROLUMINESCENCE DISPLAY of mobile telephone, comprises polymer film which is formed on organic electroluminescence substrate in vacuum vessel, by plasma chemical vapor deposition NOVELTY - The protective coat has a polymer layer (10) formed on an organic electroluminescence substrate in a vacuum vessel maintained at reduced pressure, by plasma chemical vapor deposition (CVD). A silicon oxynitride (SiON) film is formed on the polymer layer. USE - Organic electroluminescence protective coat for mobile telephone and flat TV. ADVANTAGE - Prevents permeation of water and oxygen from the surroundings into the electronic device, thereby reducing light- emission loss.</p>
	<p>ЯПОНИЯ з. № JP2003013204-А МПК B05D-003/00; B05D-007/24; C23C-014/12; C23C- 014/24</p>	<p>Заявитель TOPPAN PRINTING CO LTD з. № JP194479 пр-т 27- 06 -2001 опубл. 15 01 2003</p>	45.	<p>MANUFACTURE OF ORGANIC SUBSTANCE VAPOR involves moving location at which sprayed liquid organic substance and heating material contact for evaporation. A liquid organic substance is sprayed on a heating material (9), and evaporated to produce a vapor of the organic substance. The location at which the sprayed substance and heating material contact is moved during manufacture of vapor. USE - To vaporize highly viscous organic substance to produce organic coating article. ADVANTAGE - The highly viscous organic substance is stably and continuously vaporized. The reduction</p>

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				in the temperature of heating material is prevented by moving the location at which the liquid organic substance evaporates. The polymerization and hardening of liquid organic substance on the heating material is prevented and hence the generation of organic substance vapor is stabilized. The organic coating article with uniform film thickness is produced easily by coating the vapor of organic substance on a base material.
	Япония з. № JP2002315679-А МПК А47J-036/02; С03С-017/42	Заявитель MATSUSHITA DENKI SANGYO KK з. № JP121130 Пр-т 19 Апреля 2001 Опубл. 29 Октября 2002	46.	<p>MATERIAL FOR COOKING APPLIANCES E.G. MICROWAVE OVEN, COMPRISES METAL OXIDE LAYER IN WHICH METAL OXIDE SURFACE IS COATED WITH ORGANIC MOLECULE HAVING CARBON-FLUORINE CHAIN, AND FLUORINE COMPOUND MICROPARTICLE IS DISPERSED.</p> <p>A material comprises a metal oxide layer in which fluorine compound microparticle (1) is dispersed. The metal oxide layer comprises metallic oxide (3) whose surface is coated with organic molecule (2) having carbon-fluorine chain.</p> <p>USE - For cooking appliances e.g. heater, microwave oven, gas table, gas ring such as top plate and stove tray.</p> <p>ADVANTAGE - The material has excellent dirt resistant property, lubricity, anti-wear property, weather resistance, durability, heat-resistant property, chemical resistance, water resistance, oil repellent property and is non-flammable. The strength of the material is improved.</p> <p>The fluorine compound microparticle is fluoride graphite microparticle, polytetra fluoroethylene (PTFE) microparticle, tetrafluoroethylene-hexafluoropropylene copolymer microparticle, fluoride pitch microparticle or PTFE-perfluoroalkyl vinyl ether copolymer, preferably PTFE microparticle. The metal oxide is silicon oxide.</p>
	Япония в.з. № JP2002348699-А МПК С23С-018/52; С25D-005/12; С25D-015/02; F16С-033/12	Заявитель OSAKA GAS CO LTD (OSAG) з. № JP213073 Пр-т 13 Июля 2001 Опубл. 04 Декабря 2002	47.	<p>PLATING SKIN LAYER FOR FORMING COATING ON COOKING APPLIANCES, COMPRISES COMPOSITE LAYER CONTAINING ALLOY OF NICKEL AND METAL HAVING PRESET MELTING POINT, AND FLUORINE COMPOUND MICROPARTICLE.</p> <p>NOVELTY - A plating skin layer comprises a composite layer (2) comprising alloy of nickel and metal (M) having melting point of 420degreesC or less, and fluorine compound microparticle (4).</p> <p>USE - For forming coating on cooking appliances, metallic mold for casting, sliding component, bearing component and aircraft component (all claimed). The cooking appliances include stove, frying pan, grid iron, rice cooker and pan. The aircraft component includes landing gear and control machine material.</p> <p>ADVANTAGE - The plating skin layer has excellent corrosion resistance, sliding property, non-adhesive property, impact strength, damage-proof property, heat resistance property and decorative property.</p>
	Япония з. № JP2002280714-А МПК С09D-004/06; С09D-005/00; С09D-127/18;	Заявитель YAMAUCHI G TOSHIMITSU H з. № JP123553 пр-т 19 марта 2001 опубл 27 сентября 2002	48.	<p>Water-proof electronic device for communication apparatus, has water repellent coating containing polytetrafluoroethylene particles.</p> <p>A water repellent coating containing polytetrafluoroethylene (PTFE) particle having contact angle 110degrees or more with respect to water is coated over the electronic components (31) mounted on PCB.</p> <p>USE - For coating electronic components such as resistors, integrated circuit (IC) used in communication apparatus, portable audio equipment, measuring device, etc.</p> <p>ADVANTAGE - The degradation resulting from water adherence is prevented. The stain resistance and water-proof property of electronic device is improved.</p> <p>DESCRIPTION OF DRAWING(S) - The figure shows a perspective diagram of PCB with electronic components.</p>

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	<p>Япония з. № JP2003041126-A МПК C08K-003/00; C08K-005/06;</p>	<p>Заявитель DAIKIN IND LTD DAIKIN KOGYO KK з. № JP229707 пр-т 30 июль 2001 опубл 13 февраля 2003 Аналоги WO2003011977-A1 EP1424366-A1; KR2004023695-A; US2004192829-A1; CN1537146-A</p>	49.	<p>AQUEOUS RESIN DISPERSION COMPOSITION, USED FOR COATING, COMPRISES RESIN PARTICLES, WATER, NONIONIC SURFACTANT AND VOLATILE OR HEAT DECOMPOSING SOLVENT</p> <p>Aqueous resin dispersion composition comprises one or two types of resin particle and water, a nonionic surfactant occupying 75-95% of theoretical porosity of 26% when the particles are arranged in the most dense structure, assuming the particles are in the form of a real sphere with the same volume as the primary average particles.</p> <p>USE - Used for coating. ADVANTAGE - Mud cracking is controlled.</p> <p>DETAILED DESCRIPTION - Aqueous resin dispersion composition comprises one or two types of resin particle and water, a nonionic surfactant occupying 75-95% of theoretical porosity of 26% when the particles are arranged in the most dense structure, assuming the particles are in the form of a real sphere with the same volume as the primary average particles. The surfactant is not volatile at a temperature lower than 100degreesC, and a solvent evaporates or decomposes upon heating at a temperature lower than the heat decomposition temperature of the particles. A composition comprises (all parts): PTFE dispersion (70.0) with a density of 2.2, average particle diameter 0.2 mum, solids content 60% and 6% polyoxyethylene tridecylether (8.5 mol) ethylene oxide, decomposable acrylic resin particles emulsion (12.6) with a density of 1.1, butyl acrylate resin, average particle diameter 0.6 mum and solids content 40%, polyoxyethylene tridecylether (7.9), glycerin (3.1), hydrocarbon solvent (1.3), and water (5.1). The composition showed good storage stability, and no mud crack.</p>
	<p>Япония з. № 2002327149 МПК B65D-001/02; B65D-023/08; C09D-127/12</p>	<p>Заявитель FUJI SEAL KOGYO KK з. № JP131727 пр-т 27 Апрель 2001 опубл 15 Ноябрь 2002</p>	50.	<p>COATING AGENT COMPOSITION FOR PLASTIC LABELS USED IN POLYETHYLENE TEREPHTHALATE BOTTLES FOR DRINKS, CONTAINS FLUORORESIN POWDER.</p> <p>The coating agent composition is bilayered and outer surface of the composition which is not in contact with the container is adhered to the surface of the label mounted on the container. The coating agent composition contains fluororesin powder.</p> <p>USE - For plastic labels used in plastic bottles (both claimed). ADVANTAGE - The plastic label has excellent slip property, antiwear quality and transparency. The plastic label does not get blocked in an automatic vending machine. The plastic bottles adhered with the plastic label can be conveyed smoothly in the drinks filling factories.</p> <p>DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following: (1) Plastic label (2) applied with the coating agent composition on the surface which is not in contact with the container; and (2) Plastic bottle (1) of square shaped cross-section, on which the plastic label is mounted so that the whole body of the bottle is covered by the label.</p> <p>DESCRIPTION OF DRAWING(S) - The figure shows the plastic bottle with label. Plastic bottle (1) Plastic label (2)</p> <p>TF TECHNOLOGY FOCUS - POLYMERS - Preferred Resin: The average particle diameter of the</p>

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				<p>fluororesin powder is 1-30 mum. 0.5-30 weight% of the fluororesin powder is contained in the coating agent. Preferred Label: Coefficient of friction of the outer surface of the coating agent layer is 0.3 or less with respect to the outer surface of the coating agent layer of similar plastic label. The plastic label is a cylindrical label. The plastic label is mounted on the plastic bottle so that perforations of the label are arranged at angular portion by the side of the bottle. The sticking portion of the plastic label is formed in the angular portion by the side of the bottle.</p> <p>EXAMPLE - Aflon PTFE L169J fluororesin powder (in weight parts) (1), 45 weight% (wt.%) isopropyl alcohol solution of an acrylic type resin (60), amide group sedimentation inhibitor (0.3), phosphoric acid ester group surfactant as dispersion stabilizer (0.2), ethyl acetate (12), and isopropyl alcohol (22.5) were mixed and the coating agent was produced. The coating agent was applied on the one side of the polyester group film, dried and coating agent layer was formed. Ink was applied to another side and printing layer was formed. The resulting shrinking label was wound cylindrically and both ends were welded to produce an elongate cylindrical shrinking continuous label strip. The label strip was supplied into an automatic label vending apparatus and each label was cut so that the perforations of the labels were formed at angular portion of the bottle to which the label was mounted. The polyethylene terephthalate bottle mounted with the label was packed with tea and passed through steam tunnel for heat shrinking, and square shaped plastic bottle with shrinking label was produced. The coefficient for friction of the outer surface of the shrinking label measured based on JIS K 7125 was 0.22. 0.1 cc of water.</p>
	<p>Япония з. № JP2002348537-A МПК C09D-005/03; C09D- 201/00</p>	<p>Заявитель KANSAI PAINT CO LTD з. № JP083573 пр-т 22 Mar 2001 опубл 04 Dec 2002</p>	51.	<p>MANUFACTURE OF POWDER COATINGS INVOLVES PLASTIC PROCESSING MANUFACTURING EQUIPMENT INNER FACE SUCH THAT FRICTIONAL POTENTIAL GENERATED BETWEEN INNER FACE PORTION CONTACTING POWDER COATING IS WITHIN SPECIFIC LIMIT.</p> <p>Manufacture of powder coatings involves plastic processing the inner face of a manufacturing equipment which manufactures the powder coating, such that a frictional potential generated between the manufacturing equipment inner face portion contacting the powder coating is within -3KV to 3KV.</p> <p>USE - For manufacturing powder coatings.</p> <p>ADVANTAGE - The powder coating manufacturing method increases productivity. The frictional electrical charging is minimized during the powder coating manufacture. Hence excessive adhesion or deposition of powder coatings on machine inner surface is prevented.</p> <p>TF TECHNOLOGY FOCUS - POLYMERS - Preferred Plastic: The plastic processing performed using Teflon (RTM: polytetrafluoroethylene).</p>
	<p>Япония в.з. № JP2003184855-A МПК B32B-015/08; F16C-005/00;</p>	<p>Заявитель OKADO A TOMITA Y YAMADA M TAMURA H DAIDO METAL CO LTD DAIDO METAL KOGYO KK</p>	52.	<p>CROSSHEAD BEARING FOR MARINE ENGINE COMPRISES COATING LAYER INCLUDING SYNTHETIC RESIN AND BONDED ONTO BEARING ALLOY LAYER</p> <p>AB NOVELTY - A crosshead bearing for a marine engine comprises a bearing alloy layer (12) and a coating layer (13) comprising a synthetic resin. The coating layer is bonded onto the bearing alloy layer.</p> <p>USE - For a marine engine (claimed).</p> <p>ADVANTAGE - The coating layer made of the synthetic resin has a good conformability and superior friction-wear characteristics compared with an overlay layer made of a metal so that it becomes possible to</p>

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		3. № JP383052 Пр-т 17 Декабря 2001 Опубл. 03 Июля 2003 Аналоги US2003134141-A1; GB2384033-B		prevent the peeling off of the coating layer from occurring and to enhance both of the wear resistance and the anti-seizure property.
	Япония в.з. № JP2003167468-A МПК G03G-015/20	Заявитель FUJIWARA H КАМИЈОН М ТАКЕНАКА К RICOH КК 3. № JP369544 Пр-т 04 Декабря 2001 Опубл. 13 Июня 2003 Аналоги JP2003167468-A; US6801744-B2	53.	IMAGE FIXING DEVICE FOR FIXING TONER IMAGE ON RECORDING MEDIUM, COMPRISES PLATE MADE OF BRIDGED POLYTETRAFLUOROETHYLENE OR HEAT-RESISTANT BASE MATERIAL WITH COATING OF BRIDGED POLYTETRAFLUOROETHYLENE. An image fixing device comprises fixing roller that rotates freely along a shaft and applying heat to recording medium; heater for heating the roller; and plate made of bridged polytetrafluoroethylene (PTFE) or heat-resistant base material with coating of bridged PTFE and having two ends, one end is fixed at point that is upstream to direction of conveyance of recording medium and other end pressing against fixing roller with spring action. USE - For fixing toner image on recording medium (claimed), particularly multi-function xerograph that serves as facsimile device, printer or copier. ADVANTAGE - The abrasion loss due to friction between the pressure plate (25) and the fixing roller (20) or the paper is reduced, thus avoiding tears in the plate and resulting in adequate fixing.
	Япония в.з. № JP2003127285-A МПК B05D-001/36; B05D-003/02;	Заявитель NISSHIN STEEL CO LTD 3. № JP321398 Пр-т 19 Октября 2001 Опубл. 08 Мая 2003	54.	COATED MATERIAL FOR CHUTE OF AUTOMATIC VENDING MACHINES, IS OBTAINED BY BAKING MATERIAL AFTER APPLYING COATING MATERIALS CONTAINING MATRIX RESIN AND POLYTETRAFLUOROETHYLENE RESIN FOR UNDERCOAT AND OVERCOAT. NOVELTY - The coated material is obtained by baking a material (5) after applying coating materials for undercoat and overcoat, at preset conditions. The undercoat film (4) coating material contains polytetrafluoroethylene (PTFE) resin (1) and matrix resin with preset film-forming temperature. The overcoat film (2) coating material contains unmelted PTFE resin, matrix resin, and metal flakes (3). USE - For chute of automatic vending machines (both claimed). ADVANTAGE - The coated material has improved sliding property and wear resistance, and is manufactured economically. The coated material provides chutes excellent in sliding property and antiwear quality during high temperatures.
	Япония а.з. № JP3670230-B2 МПК B32B-015/08; C09D-127/18;	Заявитель NISSHIN STEEL CO LTD 3. № JP307113 Пр-т 03 Октября 2001 Опубл. 13 Июля 2005	55.	METAL PLATE WITH HEAT-RESISTANT, NON-ADHESIVE COATING USED FOR DOMESTIC APPLIANCES, COMPRISES COATING FILM OF THERMOMELTABLE FLUORORESIN AND SCALE-LIKE INORGANIC ADDITIVE, AND THIN LAYER OF FLUORORESIN. A metal plate with heat-resistant, non-adhesive coating, comprises a coating film (10) formed from heat resistant-resin coating material comprising thermomelttable fluoro-resin (13) and scale-like inorganic additive (12), on metal plate (16). A thin layer (11) of thermomelttable fluoro-resin is provided on surface of coating film. The inorganic additive and fluoro-resin are dispersed in coating film. USE - For domestic appliances such as cooking utensils e.g. top plate of frying pan, gas table, hot plate,

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				<p>bread baking device, oil pot, inner wall material of microwave oven and for sliding components. Also useful for resin board, plaster board and concrete wall surface.</p> <p>ADVANTAGE - By dispersing fluororesin particles and inorganic additive in coating film, in presence of inorganic fiber, the hardness, wear-resistance, non-adhesivity, workability, lubricity, heat resistance and non-adhesion sustainability are improved.</p>
	<p>Япония з. № JP3162313-B2 МПК B29C-041/08; B05B-012/10; B05D-001/02; C08J-005/18; B05B-001/00; B05C- 011/00;</p>	<p>Заявитель AGENCY OF IND SCI & TECHNOLOGY; DAINICHISEIKA COLOR & CHEM MFG; HIRAGA T; MORIYA T; NAT INST ADVANCED IND SCI & TECHNOLOGY; DAINICHISEIKA COLOR & CHEM MFG CO LTD з. № JP007419 пр-т 2000 -19-07 опубл. 25 04 2001 Аналоги US6319321-B1; EP854024-B1; DE69807949-E</p>	56.	<p>THIN-FILM FABRICATION - COMPRISES SPRAYING THIN FILM COMPOSITION MATERIALS IN LIQUID FORM INTO A VACUUM VESSEL AND DEPOSITING ON THE SURFACE OF A SUBSTRATE, THEN HEAT TREATING</p> <p>Thin-film fabrication comprises a spray step in which thin-film composition material(s) in liquid form is sprayed into a vacuum vessel via a spray of nozzles provided for each thin-film composition material and deposited on the surface of a substrate, and a heat treatment step in which the material deposited on the substrate surface is heat treated; the process include: a control step in which a substrate temperature in spray step(s) and the heat treatment step is controlled within a temperature range having a lower limit defined as a temperature that exceeds the lowest temperature of several selected depending on the constituent components of the thin-film composition material used, and an upper limit defined as a temperature that does not exceed the sheet decomposition initiation temperature of whichever thin-film composition material component has a heat decomposition temperature that is a lower than a heat decomposition temperature of other thin-film composition material components. In the case of a thin- film composition material that includes the component containing the thermoplastic high-molecular compound, the temperature is the melt initiation temperature of the component containing the thermoplastic high-molecular compound; in the case of a thin-film composition material that contains an organic or inorganic high-molecular compound precursor, the temperature is the polymerisation initiation temperature; and when a thin-film composition material that contains an organic or inorganic crosslinking agent or bridged compound, the temperature is that at which the crosslinking reaction is initiated. Also claimed is a thin-film fabrication apparatus. USE - For producing wavelength-selectable transmitting films, reflecting films, non-linear optical effect films, optoelectronic conversion apparatus, photoconductive films, optical recording media, organic electroluminescence elements, image display apparatus, spatial photo-modulators and other such areas of optical technology, optoelectronic technology etc. ADVANTAGE - High durability, high adhesion to the substrate and a high level of control of microstructures without giving rise to heat- decomposition of the thin-film composition materials.</p>
	<p>Япония в.з. № JP2002045428-A МПК B29B-009/08</p>	<p>Заявитель HITACHI CABLE LTD з. № JP235260 Пр-т 31 Июля 2000 Опубл. 12 Февраля 2002</p>	57.	<p>THIN POLYTETRAFLUOROETHYLENE TUBE FOR CATHETERS, CONTAINS TUBE COATED WITH AQUEOUS DISPERSION OF PTFE, HAVING PRESET MOLECULAR WEIGHT AND SOLID CONCENTRATION, ON CORE LINE TO PRESET THICKNESS WITH DIP COATING SYSTEM.</p> <p>NOVELTY - A thin polytetrafluoroethylene tube (PTFE) (2) contains a tube coated with aqueous dispersion of PTFE, having molecular weight of 1×10^7 or more and solid concentration of 5-70%, on a core with a dip coating system. The coating has a thickness of 60 microm or less on the core.</p> <p>USE - For use in catheter tube, for catheter, used in hospitals.</p>

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				<p>ADVANTAGE - The PTFE tube having uniform thickness, excellent moldability and mechanical strength can be easily obtained by the method. By using PTFE tube, a high quality catheter tube can be obtained easily.</p> <p>DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:</p> <p>(1) a catheter tube (1), which has an inner layer of the thin PTFE tube; and</p> <p>(2) manufacture of PTFE tube for catheters. The method involves applying the PTFE aqueous dispersion on the core, forming PTFE film having thickness of 60 microm and solidifying the PTFE film in the form of a tube, by drawing out the core.</p>
	<p>Япония в.з. № JP2001205173-A МПК B05D-001/02; B05D-001/18; B05D-007/24</p>	<p>Заявитель MATSUSHITA ELECTRIC WORKS LTD з. № JP021092 Пр-т 31 Января 2000 Опубл. 31 Июля 2001</p>	58.	<p>TUMBLER-TYPE SPRAY COATING METHOD FOR COATING METAL COMPONENTS, INVOLVES USING COATING AGENTS HAVING DIFFERENT WEIGHT RATIO OF FLUORINE RESIN WITH RESPECT TO RESIN HAVING BINDING PROPERTY.</p> <p>NOVELTY - The coating agents (A,B) containing a solvent comprising fluorine resin and resin having binding property, is sprayed on target object (1) provided in a barrel (60), to form coating skin layers (A,B). The weight ratio of fluorine resin with respect to resin in coating agent (A) is lower than that of coating agent (B).</p> <p>USE - For coating metal components (relay iron core).</p> <p>ADVANTAGE - The adhesive property of skin layer formed on the surface of target object is improved by using a coating agent containing fluorine resin and resin having binding property. The skin layer has excellent insulation, heat resistance and wear resistance.</p>
	<p>ЯПОНИЯ в.з. № 2002146520-A МПК C23C14/24; H05B33/10;</p>	<p>Заявитель NIPPON TELEGRAPH & TELEPHONE CORP з. № JP341520 пр-т 09-11- 2000 опубл(22 05 2002)</p>	59.	<p>SPUTTERING TARGET FOR FORMING THIN ORGANIC FILMS, COMPRISES POROUS SUBSTRATE WHICH IS ROLL-EXPANDED WITH POWDER-LIKE ORGANIC SUBSTANCE.</p> <p>NOVELTY - Sputtering target, comprises porous substrate which is roll- expanded with powder-like organic substance. USE - For forming thin organic films (claimed) used in chemical sensing technology, medical techniques, pharmaceutical techniques, isolation- concentration techniques and adhesion techniques.</p> <p>ADVANTAGE - The sputtering target enables to form thin organic film having excellent adhesive characteristics towards substrate. The thin film formation method enables to control film thickness. The thin film formation method has wide industrial applications. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for the formation of organic thin films.</p>
	<p>Япония в.з. № 20010196679 МПК C23C14/24; H05B33/10; H05B33/14</p>	<p>Заявитель OSAKA YUKA IND CO LTD (JP); SETA GIKEN CO LTD (JP); NIPPON STEEL CHEMICAL CO (JP) з. № JP20000242164 пр-т 2000-08-10 опубл. 2001.06.28 Аналоги</p>	60.	<p>METHOD FOR PRODUCING VAPOR-DEPOSITED FILMS of good quality for organic EL elements uniformly and rapidly in high productivity by electromagnetic induction heating of a container to which the raw material is introduced. The device of this invention for vapor deposition of films for organic EL elements vaporizes an organic material 5 in a container 2 and deposits the material in thin film on the surface of a film-forming substrate 6 and comprises a container 2 constructed of a material capable of generating heat by electromagnetic induction and a means for heating said container by electromagnetic induction. This invention also relates to a method for producing organic EL elements by the use of said device. It is possible to introduce the organic material to said container 2 constructed of a material capable of generating heat by electromagnetic induction or to introduce the organic material together with a filling up structure constructed</p>

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		WO2001JP06874 2001.08.09 EP20010955636 2001.08.09		of a material capable of generating heat by electromagnetic induction.
	Япония з. № JP2002155353 МПК C23C14/12; C08J7/04; C23C14/24;	Заявитель SHINCRON:KK з. № JP20000346886 пр-т 2000-11-14 опубл. 2002-05-31	61.	METHOD AND SYSTEM FOR THIN FILM DEPOSITION PROBLEM TO BE SOLVED: To provide a method and a system for thin film deposition by which an organic hard coating film and an optical thin film can be continuously deposited by a simplified process consisting of a dry process alone without breaking vacuum. SOLUTION: In the thin film deposition method, the organic hard coating film having a hardness higher than that of a plastic substrate 6a is deposited onto the substrate 6a. In this method, the following steps are carried out in succession: a step for substrate introduction into vacuum chamber where the substrate 6a is introduced into a vacuum chamber S2; a vacuum deposition step where organic matter is deposited onto the substrate 6a by performing vapor deposition in vacuum in the vacuum chamber S2 to deposit the hard coating film; a hardening step where the hard coating film is hardened simultaneously with or successively to the above vacuum deposition step; and a substrate discharge step where the substrate 6a is taken from the above vacuum chamber S2 into the air.
	ЯПОНИЯ а.з. № 3433138-B2 МПК C08J-005/18; C08J-007/00; C08J-007/04; C08L-027/18; C23C-014/12	Заявитель SUMITOMO HEAVY IND LTD з. № JP185639 пр-т 30 -06 -1999 опубл04 08 2003	62.	POLYTETRAFLUOROETHYLENE THIN FILM USED, E.G., AS SUPPORT FOR ORGANIC OPTOELECTRONIC THIN FILM IS FORMED ON A SUBSTRATE SURFACE SUCH THAT ITS CHAIN IS PERPENDICULAR TO THE SUBSTRATE SURFACE A polytetrafluoroethylene (PTFE) thin film is formed on the surface of a substrate member. The chain of the PTFE is perpendicular to the substrate surface. USE - For optical element and recording element. ADVANTAGE - The manufacture of polytetrafluoroethylene thin film having its chain perpendicular to the substrate surface is enabled. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for production of a PTFE thin film. The method involves arranging substrate member and PTFE base material in a vacuum housing. The substrate member is heated to 250-330 degrees C. The PTFE base material
	Япония з. № 2000304673 МПК G01N5/02; C23C14/12; G01N30/00	Заявитель NIPPON TELEGR & TELEPH CORP з. № JP19990113329 пр-т 1999- 04- 21 опубл. 2000-11-02	63.	MANUFACTURE OF AMINO ACID THIN FILM, AND CHEMICAL SENSOR PROBE PROBLEM TO BE SOLVED: To form a thin film with a high adhesion force to a substrate without changing the substance structure of an amino acid by performing heating and sublimation under a vacuum using a molecular beam cell that is composed of a heater and a water-cooling jacket. SOLUTION: After forming fine powder, a fully dried amino acid is filled into a crucible 20 that is composed of a heater 21, a water-cooling jacket 22, and the like being provided at a molecular beam deposition cell 3. After a vacuum container 1 is set to a high vacuum state of 10 ⁻⁷ Torr order by a turbo molecular pump exhaust system, the temperature of the crucible 20 is increased to a temp. of 0 to 240 deg.C, and the amino acid is sublimed, thus starting deposition. The degree of vacuum during deposition is generally in the order of 10 ⁻⁴ Torr, and all raw materials are normally deposited within two hours. Then, during deposition, a plasma flow is operated for increasing the adhesion property with the substrate. However, by controlling power being thrown into plasma, a target thin film is obtained.
	Япония	Заявитель	64.	POLYTETRAFLUOROETHYLENE THIN FILM AND PREPARATION THEREOF

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	з. № 2001011217 МПК C08J7/04; C08J7/00; C23C14/12	MITOMO HEAVY IND LTD з. № JP19990185639 пр-т 1999-06-30 опубл. 2001-01-16		PROBLEM TO BE SOLVED: To provide a PTFE film having a major axis of the molecular chain directed perpendicular to the surface of the substrate and a method for preparing the same. SOLUTION: A substrate member 15 and a polytetrafluoroethylene base material 12 are arranged in a vacuum container 10 and the vacuum container is evacuated. The substrate member is heated to a temperature in the range of 250-330 deg.C. The polytetrafluoroethylene base material is heated so that a part thereof is evaporated thereby forming a thin film composed of the polytetrafluoroethylene film on the surface of the substrate member. Thus, a polytetrafluoroethylene film having a major axis of the molecular chain directed almost perpendicular to the surface of the substrate is obtained.
	ЯПОНИЯ з.№ 11124667 МПК C23C14/24 ; C23C14/12	Заявитель ULVAC CORP опубл. 1999-05-11	65.	<u>VACUUM DEPOSITION DEVICE AND FORMATION OF THIN COATING</u>
	ЯПОНИЯ В.з. № 2001038288-А МПК B05D-003/10; B05D-005/08; B05D-007/14;	Заявитель NISSHIN STEEL CO LTD з. № JP218608 Пр-т 02 Августа 1999	66.	COATED STAINLESS STEEL PLATE FOR HIGH TEMPERATURE ENVIRONMENTS SUCH AS GAS STOVE INVOLVES FORMING COMPOSITE MATERIAL COATING WITH GROOVES ON PLATE WITH MEAN DEPTH AND MEAN DIAMETER SATISFYING PRESET RELATION. solution of alkali salt of silicic acid type glass, filler and tetrafluoride type fluororesin. Grooves are formed on the coated plate by electrolytic roughening process. Mean depth H (microns) and mean diameter D (microns) of the groove opening satisfies the following relations: (i) $D = 1-5$; and (ii) $H = D/3-D/2$. USE - Plate for high temperature environments such as gas stove and microwave oven. ADVANTAGE - The coated stainless steel plate has good non-stickiness, hardness, damage resistance, wear resistance and heat resistance. The composite material comprising a blend of 40 parts weight (pts.wt.) of polytetrafluoroethylene (PTFE) resins, 50 pts.wt. of particulate filler and 100 pts.wt. of solid alkali silicic acid group was coated on the finished material.
	Япония в.з. JP11336745-А МПК F16C-017/02; F16C-033/10;	Заявитель SANKYO SEIKI MFG CO LTD з. № JP147190 Пр-т 28 Мая 1998 Опубл. 07 Декабря 1999	67.	ELECTRODEPOSITION COATING FILM FOR HYDRODYNAMIC BEARING - INCLUDES POLYTETRAFLUOROETHYLENE AND FLUORINE CONTENT RESIN HAVING ACRYL PRINCIPAL CHAIN AND FIXED IN MESH SHAPE USING WATER SOLUBLE VINYL RESIN. NOVELTY - The coating film is formed on one surface of fixed shaft. The film includes polytetrafluoroethylene (PTFE) and fluorine content resin having acryl principal chain. The fluorine content resin is fixed in shape of mesh, using water soluble vinyl cross-linking resin. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for electrodeposition coating film formation method. USE - For hydrodynamic bearing used for supporting polygon mirror, magnetic disk and optical disk, etc. ADVANTAGE - Improves bearing characteristics by ensuring extremely favorable lubricity. Since the resin is extended in shape of mesh, the influence of hydrolysis is reduced and water resistance is raised.

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				Hence reliability of bearing is increased.
	ЯПОНИЯ в.з. № 11189862-А МПК С23С-014/12 С23С-014/24; С23С-014/32; G02F-001/1335	Заявитель NIPPON PAINT CO LTD; KAGAKU GIJUTSU SHINKO JIGYODAN; MURAYAMA Y; KASHIWAGI K з. № JP360362 пр-т 26 -12- 1998 опубл. 13 07 1999	68.	ORGANIC COLOURING THIN FILM MANUFACTURING METHOD FOR LIQUID CRYSTAL PANEL, plasma display panel - involves vacuum deposition apparatus and heating organic pigment to transfer it to surface of board NOVELTY - Organic pigments (15) introduced into vacuum deposition apparatus is sublimated or evaporated by heating under helium plasma environment. Then, it is made to adhere on the surface of board (101) to form organic colouring thin film (22). USE - For manufacturing colour filter of liquid crystal display (LCD), plasma display panel (PDP), flat panel display (FPD) used in electronic machine, motor vehicle. ADVANTAGE - Organic colouring film has excellent optical characteristics and surface evenness. DESCRIPTION OF DRAWING(S) - The figure shows the manufacturing process of organic colouring thin film. (15) Organic pigment; (22) Organic colouring thin film; (101) Surface of board.
	ЯПОНИЯ в.з. № 2000164355-А МПК С23С-014/12; С23С-014/32; H05В-033/10;	Заявитель FUTABA DENSHI KOGYO КК з. № JP335895 пр-т 26- 11 -1998 опубл. 16 06 2000	69.	ORGANIC ELECTROLUMINESCENT ELEMENT used as display element, has electrodes containing hole injection property CuPc organic film of specific thickness formed by ion plating method, containing electron accepting gas The electroluminescent element (1) consists of a transparent electrically conductive film (3) laminated between a pair of electrodes (4,6). One or more electrodes contain hole injection property CuPc organic film (5a) containing an electron accepting gas. The film has thickness of 1000 nm or more and is formed by ion plating method. USE - For use as display element. ADVANTAGE - Electrical conductivity of CuPc organic film and hole injection efficiency are enhanced. Driving circuit is obtained economically. Power consumption is reduced. Variation in the gas molecule concentration along CuPc film thickness direction is eliminated. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the manufacture of the organic electroluminescent element.
	ЯПОНИЯ в.з. № 11124668 МПК С23С14/32;	Заявитель DR EBERHARD MOLL GMBH з. № JP19980167441 пр-т 1998-06-15 опубл 1999-05-11 Аналоги US6045667 (A1) EP0885981 (A3) DE19725930 (A1)	70.	METHOD AND DEVICE FOR TREATING SUBSTRATE BY USING ION FROM LOW VOLTAGE ARC DISCHARGE PROBLEM TO BE SOLVED: To prevent plasma discharge from spreading to a substrate in cavities by arranging a thermal cathode in a chamber connected to an anode space through an opening part, introducing a rare gas therein, gas-discharging a low voltage arc to the space between it and an anode, and holding the anode space to a prescribed space. SOLUTION: The surface of a vacuum vessel 1 is provided with a cathode chamber 4 having a rare gas inlet 5, a thermal cathode 6 is housed therein, and it is connected with a cavity 10 via an opening part 7. In the cylindrical vacuum vessel 1, axially symmetrical cavities 10 are formed by 12 pieces of substrate holders 8, a crucible 16 filled with an evaporating material is inserted therein, and substrates are attached to the substrate holders 8. A rare gas is introduced from a rare gas inlet 5 and is fed into the vacuum vessel 1 via the opening part 7 to regulate its pressure into prescribed one, low voltage arc discharge is executed to the space between the thermal cathode 6 and a stationary electrode 18, bias voltage is applied from a feed unit 21, ions diffused to the outside of plasma are extracted and accelerated toward the substrates, thereby etching the substrates

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	ЯПОНИЯ в.з. № 11124667-А МПК С23С-014/12; С23С-014/24	Заявитель ULVAC CORP з. № JP303405 пр-т 17- 10 -1998 опубл. 11 05 1999	71.	VACUUM DEPOSITION APPARATUS FOR ORGANIC THIN FILM FORMATION - by controlling heat generated by heater based on detected amount of released vapour NOVELTY - Vapor quantity detectors (161,162) detects the amount of vapor released to the tank. A control unit (3) controls the heat generated by a heater based on the detected amount of released vapor. DETAILED DESCRIPTION - An organic compound provided is deposition sources (401,402) is heated by a heater. The vapor of organic compound is released into a vacuum tank (11). The released vapor adheres on the substrate surface provided in the vacuum tank, forming on organic thin film. USE - For formation of organic thin film. ADVANTAGE - The amount of vapor releases is not influenced by temperature gradient of thermo couple in deposition source and organic compound, hence amount of vapor releases is fixed. Since deposition source can be individually controlled when number of deposition sources is increased, thin film can be formed with sufficient thickness distribution on large area substrate.
	ЯПОНИЯ з.№ 11124667 МПК С23С14/24 ; С23С14/12	Заявитель ULVAC CORP опубл. 1999-05-11	72.	<u>VACUUM DEPOSITION DEVICE AND FORMATION OF THIN COATING</u>
	Япония з. № JP2000017425 МПК С23С14/24; С23С14/12	Заявитель ULVAC CORP з. № JP19980191950 пр-т 1998-07-07 опубл. 2000-01-18	73.	VESSEL FOR ORGANIC COMPOUND AND FABRICATION OF ORGANIC THIN FILM PROBLEM TO BE SOLVED: To provide an art capable of forming a uniform organic thin film on a substrate having a large diameter. SOLUTION: A vessel 10 for containing a material for an organic thin film is provided with receive holes 221-224 which are inclined from the center of the vessel 10 toward outer side and has a bottom. A vapor generated from the material for the organic thin film is allowed to have directivity toward the outside of the vessel 10 during flowing through each receive hole and uniformly released into a vacuum chamber. A uniform organic thin film can be formed on the substrate having larger diameter by adjusting the pressure to a prescribed pressure of $1.33 \cdot 10^{-4}$ - $6.65 \cdot 10^{-2}$ Pa by introducing gas into the vacuum chamber because the vapor released into the vacuum chamber comes into collision with the molecules of the gas and is scattered
	ЯПОНИЯ в.з. № 11310869-А МПК С23С-014/12; С23С-014/24	Заявитель OPTRON KK CANON KK з. № JP132637 пр-т 28- 04- 1998 опубл. 09 11 1999	74.	MATERIAL FOR FORMING THIN FILM FOR ELECTRON GUN - has conductive thin film or membrane for formation material which is maintained in porous powder material NOVELTY - A conductive thin film or membrane formation material is maintained in porous power material. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for thin film formation material formation method. USE - For surface treatment of coat film on base material of electron gun. ADVANTAGE - The thin film is stably materialized by a simple process. A quality thin film is formed on a predetermined base material at a low cost.
	Япония з. № JP10279649 МПК	Заявитель ULVAC JAPAN LTD з. № JP19970101086	75.	PROCESS FOR FORMING LOW-PERMITTIVITY POLYMER FILM AND PROCESS FOR FORMING INTERLAYER INSULATION FILM PROBLEM TO BE SOLVED: To provide a simple process for forming a thin polycarbodiimide film.

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	B32B27/34; C08J5/18; C23C14/12; H01L21/312; H01L21/768;	пр-т 1997-04-03 опубл. 1998-10-20		SOLUTION: This process comprises the first step of forming a diisocyanate film on a substrate by rotation coating or vacuum deposition, the second step of exposing the diisocyanate film to ultraviolet rays with wavelengths of 350 nm or lower at a dose of 10 mW/cm ² or higher, the third step (A) of thermally treating the film at 200 deg.C for 30 min to produce an isocyanate dimer, the third step (B) of increasing the heating temp. to 300 deg.C at a temp. rise rate of 1 deg.C/min to produce a polycarbodiimide, and the fourth step of forming a polycarbodiimide film.
	Япония з. № JP10287966 МПК C23C14/12; C23C14/06; C23C14/24	Заявитель TORAY IND INC з. № JP19970353328 пр-т 1997-12-22 опубл. 1998-10-27	76.	FORMATION OF OIL THIN FILM AND PRODUCTION OF VACUUM DEPOSITION PRODUCT USING THIS THIN FILM To form oil thin film by the quantity irreducibly minimum at all times on a substrate by measuring the pressure in an oil evaporator installed on a vacuum depositing device, regulating thermal output in a heating device based on the measured value to regulate the pressure to set value and vacuum- depositing a certain amt. of oil on the substrate. SOLUTION: In a vacuum vessel 1a of a vacuum deposition device 1, a substrate 2 of a high polymer film is run along a cooling roll 1c, and toward this, vapor obtd. by heating and evaporating oil 4 such as silicone oil housed in an oil evaporator 3 is jetted. This vapor is condensed on the substrate 2 to form the thin film of the oil. At this time, the pressure in the oil evaporator 3 is measured by a pressure gauge 5, and a power source 6 for a heater is controlled by a pressure control system 7 so as to regulate the pressure to certain one. In this way, on the substrate 2, the thin film of a certain amt. of oil can be formed at all times. After that, on this oil thin film, metal such as zinc from a metal evaporating source 8 is vacuum-deposited to form a metal vacuum-deposited film for a capacitor or the like.
	Япония з. № JP10330917 МПК C23C14/12	Заявитель ULVAC JAPAN LTD з. № JP19970158141 пр-т 1997-05-30 опубл. 1998-12-15	77.	ORGANIC THIN COATING FORMING DEVICE PROBLEM TO BE SOLVED: To form organic thin coating having uniform coating thickness on the surface of a substrate with large diameter. SOLUTION: This organic thin coating forming device 3 is constituted in such a manner that organic thin coating materials are arranged on organic evaporating sources 5A and 5B provided in a vacuum tank 10, heating is executed to release the vapors thereof in the upper direction, and, while a glass substrate 6 arranged on the side of a ceiling in the vacuum tank 10 is rotated, the vapors are adhered to the surface to form organic thin coating. The organic evaporating sources 5A and 5B are arranged on the outside in the rotating range of the substrate, and the glass substrate 6 shall not cross on the center axes 21A and 21B of the organic evaporating source 5A and 5B in which the amount of the vapors to be released are large. Since the thin coating is formed on the surface of the glass substrate 6 by the vapors diffused into the side direction, the distribution of the coating thickness is made uniform.
	Япония з. № JP10330920 МПК C23C14/12	Заявитель MATSUSHITA ELECTRIC IND CO LTD з. № JP19970148338 пр-т 1997-06-05 опубл. 1998-12-15	78.	METHOD AND DEVICE FOR VAPOR DEPOSITION PROBLEM TO BE SOLVED: To conduct vapor deposition for an organic material in good productivity by continuously supplying an organic material powder to a heating part, heating/gasifying the powder and conducting a process to deposit a gasified organic material on a base body surface in vacuum. SOLUTION: The vapor deposition device 100, in a vacuum bath 10, is provided with an endless belt 30, a hopper 40 and a holding device 50 to hold a base body 60. An organic material powder is supplied from the

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				hopper 40 to the endless belt 30 and is transferred to a heating device to be heated/ gasified. A gasified organic material 70 is deposited on a vapor deposition face of the base body 60. An organic material powder in the hopper 40 is stably supplied to the endless belt 30 by an agitation device 42. By using a porous material as a material of the endless belt 30, for example, a foamed metal, the organic material powder can be held much powder per an unit length, further, a contact area with powder is increased leading to efficient heating.
	Япония з. № JP11140625 МПК C23C14/12	Заявитель ULVAC CORP з. № JP19970322346 19971107 пр-т 1997-11-07 опубл. 1999-05-25	79.	PRODUCTION OF ORGANIC THIN FILM AND ORGANIC VAPOR DEPOSITING DEVICE PROBLEM TO BE SOLVED: To provide a technology suitable for the mass production of organic thin film. SOLUTION: The atmosphere in a vacuum tank is adjusted to a high vacuum, organic compd. vapor is released from an organic vapor depositing material (S5), after the formation of organic thin film on the surface of the object to be film-formed, an inert gas is introduced therein to adjust the atmosphere to a low vacuum (S6), the release of the organic compd. vapor is stopped, and the exchange of a substrate is executed. After the substrate which is not yet coated is arranged in the vacuum tank (S7), when the atmosphere is returned to a high vacuum from a low vacuum while the temp. of the organic vapor depositing material is regulated to keep almost film forming one, the release of the organic compd. vapor is immediately restarted. Since the time necessary for raising and lowering the temp. of the organic vapor depositing material is needless, it is suitable for the continuous formation of organic thin film, and, moreover, since organic compd. vapor is not wastefully released, it is economical.
	Япония з. № JP2002334783 МПК C23C14/12; H05B33/10	Заявитель IDEMITSU KOSAN CO LTD з. № JP20020071063 пр-т 1997-03-26 опубл. 2002-11-22	80.	MANUFACTURING DEVICE OF ORGANIC ELECTROLUMINESCENT (EL) ELEMENT PROBLEM TO BE SOLVED: To provide a manufacturing method and a manufacturing device of an organic EL element capable of preventing the influx of an evaporant between deposition chambers and thereby securing excellent element performance. SOLUTION: This manufacturing method of an organic EL element is used for forming an organic layer and an electrode on a substrate 15 while conveying the substrate 15 to plural vacuum chambers 34, 21, 22, 23 and 54 including the organic matter deposition chamber 21 and the metal deposition chamber 23 and connected so as to communicate with one another. The substrate 15 is conveyed to an adjacent vacuum chamber with a pressure difference between the vacuum chamber with the substrate 15 disposed and the adjacent vacuum chamber set $\leq 5 \times 10^{-4}$ Pa. Thereby, since the pressure of the two chambers is brought into an equilibrium state without mutual influx of the evaporants and impurities in conveying the substrate 15, contamination of the film by the evaporants and impurities of other vacuum chambers can be prevented, so that excellent element performance can be secured.
	Япония з. № JP10195641 МПК C23C14/24; C23C14/12; H05B33/10	Заявитель ULVAC JAPAN LTD з. № JP19970013351 пр-т 1997-01-09 опубл. 1998-07-28	81.	ORGANIC THIN FILM FORMING APPARATUS PROBLEM TO BE SOLVED: To provide an org. thin film forming apparatus which is capable of preventing the reevaporation of the org. materials sticking to the wall surfaces, etc., near a substrate and preventing the reaction with water and oxygen at the time of film formation. SOLUTION: The org. thin film forming apparatus for forming org. thin films on the substrate 8 by

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				<p>evaporating the different org. materials in a vacuum vessel 2 is provided with a shroud 12 for capturing the unnecessary vapor in the vacuum vessel 2 by cooling the vapor near the substrate 8. This shroud 12 is so arranged as to enclose the circumference of the substrate 8. The shroud 12 is connected to a tank of liquid nitrogen disposed on the outside of the vacuum vessel 2 and is so constituted that the liquid nitrogen is circulated. Org. compd. monomers for forming org. electroluminescence elements are housed in respective evaporation sources 3A, 3B for the org. materials.</p>
	<p>Япония з. № JP10270053-A МПК C08J-007/04; C23C-014/12; H01M-004/88; H01M-008/18</p>	<p>Заявитель TOYOTA CHUO KENKYUSHO KK з. № JP094841 пр-т 27- 03- 1997 опубл. 09 -10 -1998</p>	82.	<p>ELECTRODE MANUFACTURING METHOD FOR FUEL BATTERY - involves exposing carbon electrode surface to poly-tetra-fluoroethylene contact gas in low pressure atmosphere to form water repellent fluoride coating</p> <p>The method involves applying high frequency to the carbon electrode in a low pressure atmosphere and exposing the surface of carbon electrode to vapours of polytetrafluoroethylene. By cathode sputtering of polytetrafluoroethylene, a water repellent fluoride coating is formed on the surface of carbon electrode. USE - For phosphoric acid type battery, alkali type fuel battery, solid polymer type fuel battery, aluminium-air battery. ADVANTAGE - Excels in water repellent property by forming fluoride coating on carbon electrode surface. Controls chemical reaction easily during formation of fluoride coating. Excels in gas supply property and maintains battery characteristics continuously.</p>
	<p>ЯПОНИЯ 10204619 МПК C23C14/12; C08J5/18</p>	<p>Заявитель SHOWA SHINKU KK з. № JP19970008864 пр-т 1997-01-21 опубл. 1998-08-04</p>	83.	<p>APPARATUS FOR VACUUM HEATING REPOLYMERIZATION AND FILM FORMATION OF HIGH-POLYMER MATERIAL</p> <p>PROBLEM TO BE SOLVED: To provide the equipment engineering device of an apparatus which is a vacuum deposition apparatus for forming thin films on the surface of works in vacuum and particularly forms a film material by repolymerization on the works by rapid thermal decomposition of the film material in vacuum.</p> <p>SOLUTION: This apparatus for vacuum heating repolymerization and film formation of the high-polymer material uses, as a supply film material, a composite material formed by spreading a high-polymer film as the film material on metallic foil as a mount. In such a case, the apparatus consists of a vacuum vessel 12, a discharge means for mounting this vacuum vessel at a prescribed vacuum degree, means 631, 632 for holding the works 611, 612 in the vacuum vessel, a heating means 21 for causing the decomposition and evaporation of part of the film material surface by rapid heating in the specified position in the apparatus and a film material means for supplying the film material so as to compensate the consumption accompanying the decomposition and evaporation of the film material. The thermal decomposition products of the film material are uniformly supplied to the work surfaces, by which the repolymerization and film formation is executed</p>
	<p>ЯПОНИЯ в.з.№ 10251838-A МПК C23C-014/12; C23C-014/24</p>	<p>Заявитель ULVAC CORP з. № JP074436 пр-т 11 -03 -1997 опубл. 22 09 1998</p>	84.	<p>ORGANIC COMPOUND CONTAINER FOR VACUUM DEPOSITION APPARATUS - has carbon graphite or silicon carbide coating</p> <p>The container (12) has an organic thin film coating which releases organic compound vapour, when heated. A coating containing carbon graphite or silicon carbide, is also included. ADVANTAGE - Obtains high heat conductivity. Avoids generation of deposit. Secures improved heat response and control. Stabilizes discharge</p>

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				speed of organic compound vapour. Offers large discharge angle of vapour.
	ЯПОНИЯ в.з. № 10330918-А МПК С23С-014/12; С23С-014/24	Заявитель MATSUSHITA DENKI SANGYO KK з. № JP148337 пр-т 05- 06 -1997 опубл. 15 -12- 1998	85.	ORGANIC THIN FILM FORMATION METHOD USING VACUUM DEPOSITION TECHNIQUE FOR OPTICAL APPLICATIONS - INVOLVES HEATING FIBRE CONTAINING ORGANIC MATERIAL SO THAT ORGANIC MATERIAL IS VAPORISED AND DEPOSITED OVER SURFACE OF BASE NOVELTY - A fibre cloth (30) impregnated with organic material on its surface is continuously supplied to a heating apparatus (34). The organic material over the surface of the fibre cloth gets vapourised as the fibre cloth is heated by the heating apparatus. The vapourised organic material deposits on the surface of a base (60). The entire process is carried out in vacuum atmosphere. USE - For forming optical recording medium, colour filter, micro lens. ADVANTAGE - Film of 1 m thickness is formed with greater precision. Prevents splashing, thereby improving productivity. DESCRIPTION OF DRAWING(S) - The diagram depicts model of deposition apparatus. (30) Fibre cloth; (34) Heating apparatus; (60) Base.
	ЯПОНИЯ в.з. № 11029854-А МПК С23С-014/12;	Заявитель MATSUSHITA ELECTRIC IND CO LTD MATSUSHITA DENKI SANGYO KK з. № JP188079 пр-т 14 -07- 1997 опубл. 02 -02- 1999 Аналоги CN1261926-А EP997552-А1 TW377438-А WO9904057-А1 KR330338-В 4 US6337105-В1	86.	MANUFACTURING UNIFORM THIN FUNCTIONAL FILM BY VACUUM DEPOSITION - involves heating a functional material in a storage vessel using a heater placed above it without causing bumping and splashing of the material to occur during its evaporation A method of forming a thin functional film by vacuum deposition by heating a functional material from above without causing bumping and splashing of the functional material to occur during its evaporation, comprises placing a functional material in a storage vessel and heating the material from above by a heater. A pinholeless uniform functional film is obtained.
	ЯПОНИЯ в.з. № 10284248-А МПК С23С-014/12; H05В-033/10	Заявитель TOYOTA JIDOSHA KK з. № JP085297 пр-т 03 -04 -1997 опубл. 23- 10- 1998)	87.	ELECTROLUMINESCENCE ELEMENT MANUFACTURING METHOD - involves performing vacuum deposition using organic material and heating substrate to predetermined temperature The method involves sequentially forming a first electrode layer (4), p-layers, a light emission layer, n-layers and a second electrode layer on a substrate (1). The p-layers, the n- layers or the light emission layer are formed by vacuum deposition using an organic material. During vacuum deposition, the substrate is heated to a temperature equal to 0.7-0.9 times the melting point of the organic material. ADVANTAGE - Prevents dark spot generation thereby enhancing durability.
	ЯПОНИЯ в.з. № 11050232-А МПК	Заявитель ULVAC CORP з. № JP218171	88.	VACUUM DEPOSITION APPARATUS FOR ORGANIC THIN FILM FORMATION - HAS ORGANIC DEPOSITION SOURCE ACCOMMODATED IN DEPOSITION SOURCE STORAGE UNIT ARRANGED IN VACUUM TANK

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	C23C-014/12	пр-т 29- 07 -1997 опубл. 23- 02 -1999		NOVELTY - A deposition source storage unit (3) arranged in a vacuum tank (8) accommodates organic deposition sources (221,222). The organic deposition sources accommodate organic compounds (261,262) which are heated by microheaters (251,252) and the vapor is released into the vacuum tank to form organic thin film over a substrate. USE - For organic thin film formation. ADVANTAGE - The apparatus performs a precise temperature control and an organic thin film of fixed composition is obtained. DESCRIPTION OF DRAWING(S) - The figure illustrates the vacuum deposition apparatus. (3) Deposition source storage unit; (8) Vacuum tank; (221,222) Organic deposition sources; (251,252) Microheaters; (261,262) Organic compounds.
	ЯПОНИЯ в.з. № 11050233-А МПК C23C-014/12; C23C-014/24	Заявитель ULVAC CORP з. № JP218170 пр-т 29- 07 -1997 опубл. 23- 02- 1999	89.	ORGANIC COMPOUND RECEPTACLE FOR FORMING THIN FILM ORGANIC ELECTROLUMINESCENT ELEMENT - has a chamber containing the organic material, with a vapor release opening whose area increases from the bottom up The main body (11) of the receptacle has an accommodation chamber (12) containing organic material. The area of release opening (14) of the chamber increases from the bottom, which enables upward movement and release of organic material vapors. The vapor diffuses into a vacuum tank. USE - For vacuum deposition of organic material thin film used in organic electroluminescent element. ADVANTAGE - Organic thin film of uniform thickness is formed on substrate. Diffusion of vapor takes place uniformly in vacuum tank. DESCRIPTION OF DRAWING(S) - The figure represents plan view and cross sectional view of organic compound receptacle. (11) Main body; (12) Chamber; (14) Release opening.
	ЯПОНИЯ в.з. № 11189861-А МПК C23C-014/06; C23C-014/12; G02F-001/1335	Заявитель NIPPON PAINT CO LTD; KAGAKU GIJUTSU SHINKO JIGYODAN; MURAYAMA Y;KASHIWAGI K з. № JP360343 пр-т 26- 12 -1997 опубл. 13- 07- 1999	90.	ORGANIC COLOURING THIN FILM FORMATION METHOD IN MANUFACTURE OF COLOUR FILTERS used in flat panel display, liquid crystal display - involves depositing organic pigment evaporated in ethylene plasma atmosphere, on substrate. The organic pigment (15) is introduced into a vacuum deposition apparatus and is sublimated or evaporated using an evaporation source (10) in an ethylene plasma atmosphere. The pigment is made to adhere on the substrate (10) arranged at upper portion of the apparatus for film formation. USE - For manufacturing colour filters used in flat panel display, liquid crystal display etc. ADVANTAGE - Ion plating apparatus uses evaporation source of large area and hence reduction of film forming velocity is prevented. The absence of surface unevenness enhances the optical characters and durability of the film.
	ЯПОНИЯ в.з. № 11283974-А МПК B32B-007/02; C23C- 014/12	Заявитель ULVAC CORP NIPPON TELEGRAPH & TELEPHONE CORP NTT ADVANCE TECHNOLOGY KK з. № JP100273 пр-т 27 -03- 1997 опубл 15 -10 -1999	91.	POLYMER FILMS WITH LOWER SPECIFIC DIELECTRIC CONSTANT FOR INTERLAYER INSULATING FILMS OF SEMICONDUCTOR DEVICES - containing specified amount of fluorine in mother polymer film formed on substrate by vacuum deposition polymerization A new polymer film with lower specific dielectric constant contains a given amount of fluorine in a mother polymer film which is formed on a substrate by vacuum deposition polymerization. Production of the polymer film is also claimed, where source monomers having substituted groups containing fluorine are vacuum-evaporated and deposited and polymerized on a substrate. Interlayer insulating films are also claimed, which are given by forming the new polymer films between metal circuit layers on a semiconductor substrate. USE - As an interlayer insulating film for semiconductor devices. ADVANTAGE - An interlayer

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				insulating polymer film with a lower specific dielectric constant up to 4 can be obtained stably.
	Япония в.з. № JP10312562-A МПК C23C-030/00; C25D-015/02; F16C-033/12;	Заявитель SANKYO SEIKI MFG CO LTD з. № JP136079 Пр-т 09 Мая 1997 Опубл. 24 Ноября 1998	92.	OBJECTIVE LENS DRIVE UNIT FOR OPTICAL DISC APPARATUS - HAS PTFE COATING ON SURFACE OF ALUMINIUM BEARING, THAT HAS BEEN HEATED. Objective lens drive unit comprises of a bearing (12) with an aluminium element (12b), supported by a support shaft (5). A polytetrafluoroethylene (PTFE) content coating (12a) is coated on one surface of the aluminium element. Then the PTFE content coating is subjected to heat treatment. USE - Used for optical disc apparatus. ADVANTAGE - Improves sliding property and lens tracking property of drive unit.
	Япония з. № JP10092800 МПК H01L21/31; C23C14/12; H01L21/312	Заявитель ULVAC JAPAN LTD з. № JP19960262319 пр-т 1996-09-12 опубл. 1998-04-10	93.	EVAPORATION SOURCE AND VACUUM TREATMENT CHAMBER PROVIDED WITH EVAPORATION SOURCE, AND FORMING METHOD OF ORGANIC COMPOUND FILM PROBLEM TO BE SOLVED: To eliminate impurities of raw material monomer in an evaporation sources by installing a cooling through heating equipment and an exhauster in at least one out of evaporation sources. SOLUTION: After valves 10, 13 are opened and the pressure in an evaporation source 1a is set, a raw material monomer 3 in an evaporation tank 2 is heated and sublimated by an evaporation source heater 5 and made to stick on a cooled cylindrical vessel 9 in a vacuum vessel 6 of an evaporation source 1b. The valves 10, 13 are closed, the cooling of the vessel 9 is stopped, and the monomer 3 sticking on the vessel 9 is heated by a vacuum vessel heater 7. A valve 14 is opened, and the monomer 3 is introduced into a vacuum treatment chamber from a monomer nozzle. The raw material monomer is once subjected to vacuum treatment between the evaporation source and the heating cooling equipment. Thereby raw material monomer of organic compound of high impurity can be easily obtained.
	Япония з. № JP10158816 МПК C23C14/02; C23C14/12	Заявитель ULVAC JAPAN LTD з. № JP19960342650 пр-т 1996-12-06 опубл. 1998-06-16	94.	FORMATION OF ORGANIC THIN FILM USING RADICAL AND ORGANIC THIN FILM FORMING DEVICE PROBLEM TO BE SOLVED: To provide a technique for forming an org. thin film on the activated surface of a substrate without receiving any damages SOLUTION: A substrate is arranged in a vacuum vessel 12 before an org. thin film is formed on the substrate 11, the vessel is evacuated, the substrate 11 surface is irradiated with a radical by a radical gun 5, then the substrate is sent to an evacuated vacuum vessel 32, and the org. thin film is formed on the activated surface. Since the surface is treated with the radical gun 5, a transparent conductive film is hardly damaged, and even a substrate of resin is treated because a temp. rise is slight. The org. film is formed without being exposed to the atmosphere after the transparent conductive film surface is activated, hence the adhesion of the transparent conductive film to the org. thin film is improved, and an EL element good in characteristic is obtained
	Япония з. № JP10168559	Заявитель ULVAC JAPAN LTD	95.	ORGANIC THIN FILM FORMING DEVICE AND METHOD FOR REUTILIZING ORGANIC MATERIAL

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	МПК C23C14/12; C09K11/01; C09K11/06; H01L21/203	з. № JP19960342653 пр-т 1996-12-06 опубл. 1998-06-23		<p>PROBLEM TO BE SOLVED: To provide an organic thin film forming device capable of easily recovering an organic material adhered to a shutter for screening vapor from an evaporating source for an organic material and to provide a method for reutilizing an organic material.</p> <p>SOLUTION: This organic thin film forming device has an evaporating source 3 for an organic material evaporating an organic material 14 in a vacuum tank 2 and forming organic thin film on a substrate and a shutter 4 screening and shielding the vapor of the organic material 14 evaporated from the evaporating source 3 for an organic material till a prescribed evaporating rate can be obtd. The organic material 14 deposited on the shutter 4 is heated to reevaporate by a heater 5, and the vapor is cooled by a shroud 7 in which a cooling medium 71 circulates and is captured and housed in a housing part 70. The organic material for forming an organic EL element high in purity can be reutilized</p>
	Япония з. № JP9255791-A МПК C08G-085/00; C23C-014/12	Заявитель ULVAC CORP з. № JP090489 пр-т 19- 03- 1996 опубл. 30 -09 -1997	96.	<p>DEPOSITION POLYMERISATION DEVICE - where a monomer is evaporated under vacuum to be deposited and polymerised on a base material for forming a polymer film</p> <p>In a deposition polymerisation device, where a monomer is evaporated under vacuum to be deposited and polymerised on a base material (S) for forming a polymer film: a polymerisation heat treatment chamber (21) is installed in a vacuum vessel (11), which can be evacuated to or below the pressure of the vacuum vessel (11); heaters (23) are provided on the inside surfaces of the polymerisation heat treatment chamber (21); and, after the deposition polymerisation, the temperature of the polymerisation heat treatment chamber (21) is raised above the temperatures during the deposition polymerisation to heat treat the polymer film which has been formed. ADVANTAGE - Since the deposition polymerisation chamber (21) is separated from the vacuum vessel (11) through a vacuum space, if the polymerisation heat treatment chamber (21) is heated to high temperatures, the temperature of the vacuum vessel (11) will not rise. Therefore, the rubber seal for vacuum does not deteriorate and the degree of vacuum can be maintained. Further, after the deposition polymerisation, the heat treatment can be successively performed, so the polymer film formed can be heat treated without contact with the atmosphere.</p>
	ЯПОНИЯ з. № 10092800 МПК H01L21/31 ; C23C14/12	Заявитель ULVAC CORP з. № JP19960262319 пр-т 1996-09-12 опубл. 1998-04-10	97.	<p><u>EVAPORATION SOURCE AND VACUUM TREATMENT CHAMBER PROVIDED WITH EVAPORATION SOURCE, AND FORMING METHOD OF ORGANIC COMPOUND FILM</u></p> <p>To eliminate impurities of raw material monomer in an evaporation sources by installing a cooling through heating equipment and an exhauster in at least one out of evaporation sources.</p> <p>SOLUTION: After valves 10, 13 are opened and the pressure in an evaporation source 1a is set, a raw material monomer 3 in an evaporation tank 2 is heated and sublimated by an evaporation source heater 5 and made to stick on a cooled cylindrical vessel 9 in a vacuum vessel 6 of an evaporation source 1b. The valves 10, 13 are closed, the cooling of the vessel 9 is stopped, and the monomer 3 sticking on the vessel 9 is heated by a vacuum vessel heater 7. A valve 14 is opened, and the monomer 3 is introduced into a vacuum treatment chamber from a monomer nozzle. The raw material monomer is once subjected to vacuum treatment between the evaporation source and the heating cooling equipment. Thereby raw material monomer of organic compound of high impurity can be easily obtained</p>
	ЯПОНИЯ в.з. № 10102045-A	Заявитель NIPPON TELEGRAPH &	98.	TRANSPARENT WATER REPELLENT FILM COMPOSITION USED IN WINDOW GLASS in vehicles

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	МПК B32B-027/30; C03C-017/32; C08J-005/18; C09K-003/18; C23C-014/12	TELEPHONE CORP NTT ADVANCE TECHNOLOGY KK з. № JP276974 пр-т 30- 09- 1996 опубл. 21- 04- 1998		and mirrors - includes tetra:fluoroethylene or copolymer of per:fluoroalkyl vinyl ether which is deposited on base by vacuum deposition process. The composition includes tetrafluoroethylene or a copolymer of perfluoroalkyl vinyl ether. Tetrafluoroethylene or copolymer of perfluoroalkyl vinyl ether is deposited on a base by vacuum deposition process. The vacuum deposition process is carried out at a temperature of 180C which is lower than the melting point of the water repellent film. USE - For instruments used in physics and chemistry. Used for transparent water repellent film compositions used in window glass in vehicles and mirrors. ADVANTAGE - Exhibits high transparency, water repellent property and durability.
	ЯПОНИЯ в.з. № 9291357-А МПК B22F-009/04; C23C-014/12; C23C-014/28; H01S-003/00	Заявитель KAWASAKI HEAVY IND LTD з. № JP131205 пр-т 25- 04 -1996 опубл. 11- 11- 1997	99.	THIN FILM AND POWDER MANUFACTURE using solid state mix as raw materials - involves heating solid state mix by laser irradiation and making molecules to jump and precipitate on capture object inside reaction chamber The method involves forming a solid state mix (16) by mixing a metal, a metallic compound/organic compound as a second component to an organic compound which is a first component. The solid state mix is arranged in a reaction chamber (14). The inner space of the reaction chamber is exhausted to a low pressure state of 10-1-10-6 Pa subsequently. The solid state mix is heated by the excitation and irradiation of an IR light or a UV ray laser. The molecules of the solid state mix are made to jump out by the irradiation heating and made to precipitated and captured on a capture object (20) placed in opposition inside the reaction chamber. The metal which is the second component is chosen from either Co, Fe, Ni, Cu or their compounds. A ceramic compound is used as an inorganic compound. ADVANTAGE - Achieves large film forming velocity or powder forming velocity by enlarging heat conduction of raw material organic compound. Improves quality of film or powder.
	ЯПОНИЯ в.з. № 10195109-А МПК C08F-002/00; C23C-014/12; C23C-014/24	Заявитель ULVAC CORP з. № JP359140 пр-т 27-12- 1996 опубл. 28- 07- 1998	100.	EVAPORATION POLYMERISATION DEVICE - inside wall of evaporation chamber, inside surface of exhaust pipe, outside surfaces of jigs, and surfaces of members exposed to monomer are coated with copper or gold. An evaporation polymerisation device, where monomers are evaporated under vacuum to form a polymer film on the surface of a substrate comprises. The inside wall surface of an evaporation polymerisation chamber (2), the inside surface of an exhaust pipe (8), the outside surfaces of jigs, and the surfaces of constituent members to be exposed to the monomer in evacuation polymerisation are plated with copper or gold. USE - Used to form a polymeric film on the surface of a substrate (D) through evaporation polymerisation. ADVANTAGE - The evaporation polymerisation product being attached can be easily separated after the evaporation polymerisation has been completed.
п о р о ш	ЯПОНИЯ а.з. № 3192071-B2 МПК	Заявитель CENTRAL GLASS CO LTD з. № JP297060 пр-т 15 -11 -1995 опубл. 23 -07- 2001	101.	PREPARATION OF WATER-REPELLENT COMPOSITE GRANULES - by applying vapour deposition of low molecular weight PTFE onto surface of primary granules. Onto the surface of primary granules having mechanical strength greater than that of low molecular weight PTFE is applied vapour deposition of low molecular weight PTFE. The material has a rough surface formed by covering the surface of base material with water-repellent composite

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о к				granules through an adhesive layer. ADVANTAGE - Good durability and water repelling property and durability. EA (JP3192071-B2) Onto the surface of primary granules having mechanical strength greater than that of low molecular weight PTFE is applied vapour deposition of low molecular weight PTFE. The material has a rough surface formed by covering the surface of base material with water-repellent composite granules through an adhesive layer. ADVANTAGE - Good durability and water repelling property and durability.
	Япония з. № JP8283932 МПК C23C14/12; G01J1/02; H01L41/08;	Заявитель ULVAC JAPAN LTD з. № JP19950085721 пр-т 1995-04-11 опубл. 1996-10-29	102.	METHOD FOR FORMING ORGANIC PYROELECTRIC PIEZOELECTRIC BODY PURPOSE: To provide a method for forming an org. pyroelectric piezoelectric body excellent in pyroelectric piezoelectric properties by sufficiently executing poling treatment to a polymer film formed on a substrate kept at low temps. CONSTITUTION: The raw-material monomers A and B capable of forming a polymer film are vaporized in vacuum to form a polymer film on a substrate 5 kept at low temps. A gas is then introduced into a vacuum treating chamber 1, a high electric field is impressed between an electrode set below the polymer film and an acicular electrode 12 arranged in front of the substrate 5 to heat the substrate, and the polymer film is poled. Consequently, while the polymer film is still in an oligomer state, the unreacted part is poled in the film when the unreacted part undergoes a reaction when the substrate is heated, and an org. pyroelectric piezoelectric body improved in pyroelectric and piezoelectric properties is easily and efficiently formed.
	Япония з. № JP9025559 МПК C23C14/00; C08F114/00	Заявитель CENTRAL GLASS CO LTD з. № JP19950170918 пр-т 1995-07-06 опубл. 1997-01-28	103.	PRODUCTION OF WATER REPELLENT COATING FILM PROBLEM TO BE SOLVED: To provide a producing method of a water repellent coating film excellent in water repellency and durability. SOLUTION: The coating film composed of a mixed layer of a metal and/or a ceramic with a low molecular weight fluororesin is formed on a substrate by physically depositing the metal or ceramic jointly with the vapor deposition of the low molecular weight fluororesin capable of evaporating by heating and having 500-20000 molecular weight.
	Япония з. № JP9143681-A МПК C08G-018/32; C08G-073/10; C23C-014/12	Заявитель ULVAC CORP з. № JP319642 пр-т 14- 11- 1995 опубл. 03- 06- 1997	104.	FORMING THIN FILM OF MACROMOLECULE - COMPRISES EVAPORATING PRECURSOR MONOMER FOR MACROMOLECULAR POLYMER IN VACUUM, DEPOSITING AND POLYMERISING PRECURSOR MONOMER ON BASE The formation comprises: (a) evaporating a precursor monomer for a macromolecular polymer in vacuum; (b) depositing and polymerising the precursor monomer on a base. The temperature of the base is retained so that the precursor monomer having low vapour pressure out of the entire precursor monomer may have a surface residence time of 10-1 second or less. USE - The method forms a thin film of a macromolecule, including thin film of polyurea, or polyimide. ADVANTAGE - The method retains the temp. of the base so that the precursor monomer having low vapour pressure may have a surface residence time of 10 -1 second or below. The result provides the precursor monomer on the substrate with sufficient migration to react the monomer, isotropically growing the film of the macromolecular polymer on the base. The method forms the flat thin film on the stepped base. The flat thin film of the macromolecule is formed with simple processes and conditions without requiring complicate processes and conditions.

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	Япония з. № JP9049072-A МПК C23C-014/12; C23C-014/24	Заявитель ULVAC CORP з. № JP204583 пр-т 10- 08- 1995 опубл. 18- 02 -1997	105.	EVAPORATION SOURCE FOR ORGANIC COMPOUND - comprises vaporising container housing organic compound, and container heating apparatus The evaporation source for forming a polymer film on a substrate disposed in a vacuum treating chamber, has a vaporising container in which an organic cpd. monomers housed, and a container heating apparatus. The container is made of good heat conductive metal, and is heated with a liquid heating apparatus in which a thermal medium is circulating. USE - For forming polymer film on a substrate.
	Япония з. № JP9041128-A МПК C23C-014/12; C23C-014/24	Заявитель ULVAC CORP з. № JP198573 пр-т 03- 08- 1995 опубл. 10- 02 -1997	106.	ORGANIC CPD. EVAPN. SOURCE FOR POLYMER FILM FORMATION ON SUBSTRATE - comprises glass container contg. concave part at wall surface part fitted with monomer temp. measuring monitoring thermocouple The evapn. source for forming a polymer film on a substrate in a vacuum treating chamber, has a glass container for housing an organic cpd. monomer, in which a concave part for inserting into the container at part of the wall surface of the container and the monomer temp. measuring monitoring thermocouple is fitted to the concave part.
	Япония в.з. № JP7276578-A МПК B29C-063/02;	Заявитель NITTO DENKO CORP з. № JP074894 Пр-т 13 Апреля 1994 Опубл. 24 Октября 1995	107.	POLY:TETRA:FLUOROETHYLENE-COATED ARTICLE PRODN. - BY FORMING LAMINATE OF SINTERED PTFE AND UNSINTERED PTFE, PRESSING AND HEATING. A laminate film composed of sinter PTFE layer and unsintered PTFE layer is prepd. The laminate film is laid over a predetermined surface of a base material, in opposition to the unsintered layer of the base material, and pressed, so that the base material and the laminate film are temporarily bonded, and heated above the m.pt. of the unsintered PTFE to sinter it. Also claimed is the prodn. of the article in which base material, unsintered PTFE film and a sintered PTFE film are overlaid in that order, pressed, and heated. ADVANTAGE - High dielectric breakdown voltage is imparted to the article. Prodn. is convenient without using an adhesive. The PTFE layer, free from conventional pinholes, has high reliability.
	Япония JP3594950-B2 МПК B29B-009/08;	Заявитель MITSUI FLUOROCHEMICAL CO LTD з. № JP307457 Пр-т 06 Июня 1994 Опубл. 22 Октября 2002	108.	FLUORO RESIN POWDER COMPOSITION FOR COATING, COMPRISES TETRAFLUOROETHYLENE/PERFLUORO(ALKOXY TRIFLUORO ETHYLENE) COPOLYMER MIXTURE, AND HAS PRESET MEAN PARTICLE DIAMETER AND NO-LOAD MELTING FLUIDITY. NOVELTY - The fluoro resin powder composition comprises tetrafluoroethylene/perfluoro(alkoxy trifluoro ethylene) copolymer (PTFE/PFA) mixture. PTFE particles have preset mean particle diameter and heat of crystallization. The powder composition is heat-fused and sprayed in the atmosphere heated beyond the melting point of PFA. The powder has a mean particle diameter of 1-1000 microns and predefined no-load melting fluidity. USE - As powder for powder coating and rotational molding. ADVANTAGE - The powder composition has excellent surface smoothness, chemical resistance and heat resistance. Dust adhering to processed material surface using the powder, is easily removed. The composition has high purity. DETAILED DESCRIPTION - The fluoro resin powder composition comprises PTFE/PFA mixture. PTFE

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				particles have a mean particle diameter of 0.05-1 microns and a heat of crystallization (HC) of less than 50 J/g. HC is calculated from the crystallization peak in a crystallization curve obtained from differential scanning calorimetry, by conditions of temperature raise from 200-300degreesC at 10degreesC/minute, maintaining for 1 minute at 380degreesC, and temperature fall by 10degreesC/minute to 200degreesC. The powder composition is obtained by spraying the mixture in atmosphere heated beyond the melting point of PFA, or by heat-fusing the mixture at a temperature more than the melting start temperature of PFA which does not exceed its melting point. The powder has a mean particle diameter of 1-1000 microns and no-load melting fluidity which satisfies the formula (1), where F is no-load melting fluidity of copolymer powder and eta is the specific melt viscosity (poise) of copolymer powder at 372degreesC.
	Япония з. № JP2911378-B2 МПК C09C-003/10;	Заявитель CENTRAL GLASS CO LTD з. № JP007216 Пр-т 26 Января 1994 Опубл. 09 Января 1995 Аналоги US5578361-A; EP665274-B1; DE69524268-E	109.	WATER-REPELLENT COMPOSITE PARTICLE - WITH LOW MOL. WT. PTFE COVERING ARE USEFUL FOR PREPN. OF WATER-REPELLENT COATINGS WITH SUPERIOR ABRASION RESISTANCE A water-repellent composite grain (I) comprises (A) a first grain and (B) a low mol. wt. polytetrafluoroethylene covering. (A) has higher mechanical strength than (B). Also claimed were: (i) A method to produce (I) comprising first covering (A) with (B) and then breaking up the agglomerated mass into separate grains of (I). (ii) A water-repellent article (II) comprising a substrate, an adhesive layer formed on the substrate and (I) which is anchored to the substrate by means of the adhesive layer whereby part of (I) is exposed on and part of it submerged in the adhesive layer. The resulting water-repellent article is minutely rough. (iii) A method for producing (II) by (a) forming the adhesive layer on the substrate (b) applying (I) to the adhesive layer so that (I) float on the adhesive layer. (c) pressing down (I) so that the grains are partly exposed and partly submerged in the adhesive layer thereby making the water-repellent article minutely rough and (d) harde! ning the adhesive layer. (iv) A method for producing (II) by mixing (I) and an adhesive layer. USE - (I) are useful for producing water-repellent article. ADVANTAGE - (II) have good water repellent properties and improved mechanical strength such as abrasion resistance
	Япония в.з. № 8020895 МПК C25D-011/18	Заявитель MITSUBISHI MATERIALS CORP з. № JP154846 пр-т 06 Июля 1994 опубл. 06 Июля 1994	110.	SURFACE TREATMENT OF ALUMINIUM (ALLOY) - BY ELECTROLYSING ALUMINIUM (ALLOY) AS ANODE IN ACIDIC AQ. SOLN. AND DIPPING OBTD. METAL INTO AQ. SOLN. OF ANIONIC PER:FLUORO:ALKYL CPD. AND PTFE PARTICLES. AL (ALLOY) IS SURFACE TREATED by electrolysing Al (alloy) as an anode, in an acidic aq. soln., to form a porous anodised coating on the surface of the metal, and dipping the obtd. metal into an aq. soln. contg. an anionic perfluoroalkyl cpd. and PTFE particles.
	ЯПОНИЯ В.з. № 8020895-A МПК C25D-011/18	Заявитель MITSUBISHI MATERIALS CORP з. № JP154846 Пр-т 06 Июля 1994 Опубл. 23 Января 1996	111.	SURFACE TREATMENT OF ALUMINIUM (ALLOY) - BY ELECTROLYSING ALUMINIUM (ALLOY) AS ANODE IN ACIDIC AQ. SOLN. AND DIPPING OBTD. METAL INTO AQ. SOLN. OF ANIONIC PER:FLUORO:ALKYL CPD. AND PTFE PARTICLES. Al (alloy) is surface treated by electrolysing Al (alloy) as an anode, in an acidic aq. soln., to form a porous anodised coating on the surface of the metal, and dipping the obtd. metal into an aq. soln. contg. an anionic perfluoroalkyl cpd. and PTFE particles.

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				ADVANTAGE - The treatment offers resistance to wear and corrosion and water and oil-repellency.
	ЯПОНИЯ В.з. № 7335627-А МПК С23F-004/00; H01L- 021/3065	Заявитель NISSHIN ELECTRICAL CO LTD З. № JP129164 Пр-т 10 Июня 1994 Опубл. 22 Декабря 1995	112.	DRY ETCHING APPTS. FOR MFR. OF PCB - HAS A FLUOROCARBON OR POLYIMIDE RESIN COVERING AT LEAST PART OF THE WORK SURFACE The appts. has a fluorocarbon resin, or polyimide resin contg. at least one of polytetrafluoroethylene, ethylene-tetrafluoroethylene copolymer, tetrafluoroethylene-perfluoroalkylvinylether copolymer, tetrafluoroethylene-hexafluoropropylene copolymer, ethylene-chlorotrifluoroethylene copolymer, or polychlorotrifluoroethylene, covering at least part of the surface facing the work to be treated in the vacuum container
	Япония з. № JP8035058 МПК С23С14/12	Заявитель N T T LEASE KK з. № JP19940168291 пр-т 1994-07-20 опубл. 1996-02-06	113.	METHOD AND DEVICE FOR FORMING WATER REPELLENT ORGANIC FILM PURPOSE: To form water repellent films having an excellent adhesion property, wear resistance and weatherability on a target surface by depositing a water repellent org. material by evaporation on the surface of the target to be treated or irradiating the surface of the target with ion beams of specific metals within a vacuum vessel. CONSTITUTION: The target 3 as a solid to be treated, such as glass or ceramics, is mounted at a fixing jig 8 in the vacuum vessel 1 and the metal ion beams of Ni, Cr, Ti, Al, Cu, Zn, etc., are generated from a first ion gun 4 and is accelerated by an acceleration electrode 7. The target 3 is irradiated with this accelerated ion beam and the water repellent material 10, such as fluoro-resin, is evaporated from an evaporating source 2 and is deposited by evaporation on the surface of the target 3. The ion beam of the water repellent org. material is otherwise generated from a second ion gun 6 and is accelerated by an acceleration electrode 7. The target 3 is irradiated with this accelerated ion beam and the vapor of the fluoro-resin is deposited by evaporation thereon from the evaporating source 2 or the target is simultaneously irradiated with the ion beam of the water repellent org. material during the irradiation with the metal ion beam.
	Япония а.з. № 2615317-B2 МПК B05C-011/08; G03F-007/16; H01L-021/027; H01L-021/68	Заявитель TOKYO OHKA KOGYO CO LTD З. № JP6061134-A Пр-т 04 Марта 1994	114.	SPINNER CHUCK FOR COATING RESIST SOLN. ON SURFACE OF DISK MEMBER - SURROUNDS SUCTION PORTS ON CHUCK SURFACE BY SEALING RINGS FORMED BY COVERING RUBBER CORE with PTFE. The spinner chuck has a suction port surrounded by a sealing ring comprising a rubber core and PTFE surface layer. USE/ADVANTAGE - The spinner chuck is used to coat resist solution on board-shaped processed objects, e.g. glass substrates. The PTFE layer of the seal prevents sticking to the rear side of the object being processed, allowing the seal to maintain elasticity. It also prevents deformation of the object being processed.
	Япония з. № JP8158055 МПК С23С16/48; С08F2/00; С08J5/18	Заявитель KAWASAKI HEAVY IND LTD з. № JP19940331094 пр-т 1994-12-07 опубл. 1996-06-18	115.	PRODUCTION OF ORGANIC THIN FILM BY INFRARED LIGHT LASER AND DEVICE THEREFOR PURPOSE: To provide a method and device for producing an org. thin film from a solid starting org. compd. by using an infrared light laser such as Nd:YAG laser. CONSTITUTION: The solid starting org. compd. 16 is disposed in a reaction chamber 14, and the inside of the chamber 14 is evacuated to attain a vacuum state, then this starting org. compd. 16 is irradiated with the infrared light laser to excite/activate its org. molecule and to spatter the org. molecule, and the excited org.

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				molecule is deposited on a substrate 20 disposed to the opposite surface of the starting org. compd. to produce the objective org. thin film. By this method a film forming speed is increased.
	Япония з. № JP8045338-A МПК C09D-171/02; C23C-014/12; H01B-001/06	Заявитель MITSUBISHI JUKOGYO KK з. № JP176493 пр-т 28- 07- 1994 опубл. 16- 02- 1996	116.	HIGH POLYMER SOLID ELECTROLYTE THIN FILM PREPN. FOR BATTERIES - by vacuum depositing polyethylene oxide on substrate depositing lithium supporting electrolyte and heat-treating. Polyethylene oxide is heated in vacuum to deposit it in vapour phase on a substrate. Lithium supporting electrolyte is heated in vacuum and deposited on the polyethylene oxide film. The obtd. electrolyte composite film is heat-treated in vacuum to make the lithium supporting electrolyte diffuse into the polyethylene oxide film. USE - The method is used for prepn. of the high polymer solid electrolyte thin film for high polymer battery. ADVANTAGE - High polymer solid electrolyte thin film having thickness of up to 1 m can be prepd..
	Япония з. № JP8013136-A МПК C08G-073/10; C08J-005/18; C23C-014/12	Заявитель MATSUSHITA ELECTRIC WORKS LTD з. № JP150202 пр-т 30- 06- 1994 опубл.16- 01- 1996	117.	DEPOSITION FILM FORMATION, on electronic part, etc. - by housing two monomers in evaporation tubes, heating and evaporating under vacuum, at same time, etc. Two types of monomers (1,2) are housed in evapn. tubes (4,5) having an opening part (4a,5a), respectively, and are heated and evaporated at the same time, under vacuum to form a deposition film consisting of the polymer of the monomers on the surface of an objective (3). The monomers (1,2) are put in box-type filling containers (6,7) opened at the upper part, respectively and with the filling containers (6,7) in the horizontal condition, they are inserted in the evapn. tubes (4,5) from the opening part (4a,5a). USE - Used to form a polymeric deposition film on an electronic part, e.g. semiconductor device, etc.. ADVANTAGE - When the monomers are put in the box-type filling containers, they can be visually distributed evenly on the opening part and inserted in the evapn. tubes. The monomers are housed in the evapn. tubes keeping their initial conditions. The monomers are polymerised at a specified mol. ratio through evaporating at a constant speed. Polymeric deposition film of stable physical properties are formed on the surface of the objective.
	Япония з. № JP7216536-A МПК C08F-002/00; C08F-002/34; C08G-085/00; C23C-014/12; H01L-021/312	Заявитель ULVAC CORP з. № JP023414 пр-т 24- 01- 1994 опубл. 15 -08- 1995	118.	WHOLE SURFACE SIMULTANEOUS VAPOUR DEPOSITION APPTS. - forms high polymer films on whole surface of sample in vacuum vapour deposition chamber while vapour of 2 monomers is introduced to the chamber Appts. forms high polymer films on whole surfaces of a sample simultaneously in a vacuum vapour deposition/polymerisation chamber while introducing two monomer vapour in the chamber as materials. Pairs of monomer containers and their introduction tubes are attached to the vacuum deposition/polymerisation chamber. ADVANTAGE - Vacuum vapour deposition speed and thickness of high polymer films can be increased as compared with conventional equipment. Thick high polymer films can be formed by taking a long time by using one each pair of monomer container alternately.
	ЯПОНИЯ з. № 8108469 МПК	Заявитель TORAY INDUSTRIES з. № JP19940270394	119.	BIAXIAL ORIENTED POLYESTER FILM FOR VACUUM EVAPORATION To improve rewinding characteristics during an evaporation process, and provide high precision of a margin whose width is narrow of an evaporation film for capacitor, especially, and which is a concern generated at

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	B29C55/12 ; B29C71/02	пр-т 1994-10-06 опубл. 1996-04-30		the time of forming the margin. CONSTITUTION: This biaxial oriented polyester film for vacuum evaporation has creep elastic recovery rate of a slit-shaped wound object in a polyester film to be thermal-fixed after biaxial orientation of not less than 0.96. The creep elastic recovery rate ϕ is a value obtained from $\phi = L/L_0$, where L_0 : elongation at the time of the initial load and L: elastic recovery amount when 98% of a load is removed after creep test.
	ЯПОНИЯ в.з. № 7216536-А МПК C08F-002/00; C08F-002/34; C08G-085/00; C23C-014/12; H01L-021/312	Заявитель ULVAC CORP з. № JP023414 24 01 1994 пр-т 24- 01 -1994 опубл. 15- 08- 1995	120.	WHOLE SURFACE SIMULTANEOUS VAPOUR DEPOSITION APPTS. - forms high polymer films on whole surface of sample in vacuum vapour deposition chamber while vapour of 2 monomers is introduced to the chamber. Appts. forms high polymer films on whole surfaces of a sample simultaneously in a vacuum vapour deposition/polymerisation chamber while introducing two monomer vapour in the chamber as materials. Pairs of monomer containers and their introduction tubes are attached to the vacuum deposition/polymerisation chamber. ADVANTAGE - Vacuum vapour deposition speed and thickness of high polymer films can be increased as compared with conventional equipment. Thick high polymer films can be formed by taking a long time by using one each pair of monomer container alternately.
	ЯПОНИЯ в.з. № 7207429-А МПК C08F-002/00; C08F-002/34;	Заявитель NIPPON TELEGRAPH & TELEPHONE CORP з. № JP002375 пр-т 14- 01 -1994 опубл. 08 -08 -1995	121.	WATER REPELLENT LUBRICATING MATERIAL PRODN. - COMPRISES EVAPORATING PTFE powder at specified temp. under vacuum to adhere it to a base material Low molecular wt. ethylene tetrafluoride powder of molecular weight 500-20000 which is fluorinated till the end, is evaporated at a temp. 1.3 times or less m.pt. in absolute temp. under vacuum to ionise and make the powder adhere to a base. USE - To produce material having repellency, water-proofing property, corrosion resistance, snow adhesion resistance, weather-proofing property and lubricity.
	ЯПОНИЯ з. № JP3030309-B2 МПК B05D-001/02; C23C-004/12; C23C-016/44; C23C-014/12	Заявитель RES DEV CORP JAPAN; AGENCY OF IND SCI & TECHNOLOGY;SHINGIJUT SU JIGYODAN; HIRAGA T ; MORIYA T з. № JP066706 09 пр-т 03- 1994 опубл. 10 -04 -2000 Аналоги DE69418177-E EP671219-B1 KR264347-B1 US2001001945-A1	122.	FABRICATION OF THIN FILMS FOR PHOTO-ELECTRON CONVERSION DEVICES - by a spray deposition method giving greater film forming efficiency at lower temp. Process for producing thin films by dissolving one or more film material into a solution or dispersion and spraying through spray nozzles onto a substrate in high vacuum vessel followed by heating the deposit. Also claimed is the device for depositing the film. After heating the film is subjected to a pressure process. A composite film is formed using two or more organic or inorganic materials. The device consists of a vacuum vessel, one or more spray nozzles with on/off needle valves, substrate and mount with a heating means, and an exhaust, with a means to prevent carry over into the vacuum system, e.g. physical adsorption, low temperature trap and regenerate the material. A shutter is provided between the nozzles and substrate to give a sharp cut off. USE - Wavelength selective transmission films, reflection films, optical non-linear effect films used in photo-electric conversion device, etc. ADVANTAGE - Films are formed with greater efficiency and at lower temperature.
	ЯПОНИЯ	Заявитель	123.	

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	а.з. № 2599569-B2 МПК C23C-014/12; C23C-026/00	AGENCY OF IND SCI & TECHNOLOGY DAINICHISEIKA COLOR & CHEM MFG SHINGIJUTSU JIGYODAN з. № JP066707 пр-т 09 -03- 1994		COMPOSITE TYPE OPTICAL THIN FILM PRODN. - comprises spraying organic optical material contg. at least two components from spraying nozzles equipped for each component onto substrate in high vacuum vessel. Composite type optical thin film is made by spraying an organic optical material of at least two components in a soln. or dispersion state from spraying nozzles, which are equipped for each component into a high-vacuum vessel, to deposit the material on a substrate, followed by heat treating it. USE - For wavelength selective transmission film, reflection film, non- linear effect film and photoelectric conversion devices.
	Япония з. № JP6280024 МПК C23C16/48	Заявитель KAWASAKI HEAVY IND LTD з. № JP19930091947 пр-т 1993-03-26 опубл. 1994-10-04	124.	PRODUCTION OF ORGANIC THIN FILM BY ULTRAVIOLET LASER AND DEVICE THEREFOR PURPOSE:To produce an organic thin film from a solid raw material organic compound by using ultraviolet laser such as excimer laser. CONSTITUTION:The solid raw material organic compound 13 is arranged in a reaction chamber 12 as a target and after the reaction chamber 12 is evacuated to reduce pressure, an organic molecule is sputtered by irradiating the raw material organic compound 13 with ultraviolet laser to excite and activate an organic molecule and is deposited on a substrate 16 arranged opposing to the raw material organic compound 13.
	ЯПОНИЯ В.з. № 7027457-А МПК C08K-009/02; C08L- 101/00; C09D-127/12; C23C-018/52; C25D- 015/02; F25C-001/12	Заявитель OSAKA GAS CO LTD з. № JP113309 Пр-т 14 Мая 1993 Опубл. 27 Января 1995	125.	ICE MAKING BOARD FOR PERISHABLE FOODS OF GOOD WATER REPELLENCY, ADHESION AND IMPACT DEFORMATION RESISTANCE ETC. - HAS ON SURFACE OF BASE MATERIAL, COMPOSITE OF DISPERSED PARTICLES OF E.G. GRAPHITE FLUORIDE, PTFE PARTICLES OF TETRA:FLUORO:ETHYLENE- HEXA:FLUORO:PROPYLENE COPOLYMER. A composite plated film is provided on the surface of a base material. The composite plated film contains at least one of the following dispersed particles: (a) graphite fluoride particles (CF) n, having an average grain dia. of up to 2 micro: (b) PTFE particles; (c) tetrafluoroethylene-hexafluoropropylene copolymer particles and tetrafluoroethylene-perfluoroalkyl vinyl ether copolymer particles. A metal plating soln. serving as a matrix in the composite plated film prep. comprises nickel, copper, zinc, tin, iron, lead, cadmium, chromium, mobile metals, or their alloy.
	ЯПОНИЯ в.з. № 7023862-А МПК А47J-036/04; C08K- 009/02; C08L-101/00	Заявитель OSAKA GAS CO LTD з. № JP113309 Пр-т 14 Мая 1993 Опубл. 27 Января 1995	126.	WATER REPELLENT MATERIAL FOR COOKING DEVICE - COMPRISES COMPOSITE PLATED FILM CONTG. DISPERSED FLUORINE CPD. PARTICLES. Material cooking device has a composite plated film contg. dispersed fluorine cpd. particle having average grain dia. of up to 2 microns. USE/ADVANTAGE - The cooking device comprises a gas hot plate, gas table, oven, microwave range, rice cooker, barbecue hot plate, hot plate, frying pan, grill pan, toaster oven, electrical pot, electromagnetic induction heater. The material has good water repellency, non-stickiness, adherence, impact deformation resistance, chemical resistance, abrasion resistance, scorch resistance. Easy maintenance is provided. The material retains its initial properties after continuous application. Pref. fluorine cpd. comprises pitch fluoride, graphite fluoride, PTFE, a TFE-perfluoroalkyl biphenyl ether copolymer, or TFE-hexafluoropropylene copolymer.

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	ЯПОНИЯ В.з. № 7195616-А МПК В32В-015/08; С23С-002/06; С23С-028/00	Заявитель NKK CORP З. № JP351017 Пр-т 29 Декабря 1993 Опубл. 01 Августа 1995	127.	STEEL PLATE COATED WITH FLUORO RESIN, PROVIDING IMPROVED ANTICORROSION - HAS THERMAL FUSION LAYER COMPRISING ETHYLENE!-TETRA:FLUOROETHYLENE COPOLYMER RESIN, ON ALLOY-PLATED STEEL PLATE. A thermal fusion layer of ethylene tetrafluoroethylene copolymer resin film is formed on a Zn/Al alloy-plated steel plate surface including 20 - 80 wt.% of Al, via a chromate coating film. ADVANTAGE - Adhesion and anticorrosion properties can be improved
	ЯПОНИЯ В.з. № 6240486-А МПК В29С-033/38; С25D-001/00	Заявитель OLYMPUS OPTICAL CO LTD З. № JP047283 Пр-т 12 Февраля 1993 Опубл. 30 Августа 1994	128.	ELECTRO:CASTING MOULD PRODN. - INVOLVES FORMING METALLIC COATING LAYER CONTG. PARTICLES AND POWDER OF FLUORO-RESIN ON MASTER THEN APPLYING ELECTROLYTIC COATING LAYER. Prodn. of electrocasting mould comprises applying a metallic coating layer dispersed with particles and powder of fluorine resin on the master; applying an electrolytic coating on the metallic coating layer to prepare the electrocasting mould; and separating the metallic coating layer from the master to obtain the electrocasting mould. USE/ADVANTAGE - The mould gives good separation property in resin moulding
	Япония з. № JP6287752 МПК С23С14/34; С23С14/12	Заявитель NTN CORP з. № JP19930098858 пр-т 1993-03-31 опубл. 1994-10-11	129.	METHOD AND APPARATUS FOR FORMING SOLID LUBRICATING FILM FOR BALL SCREW NUT PURPOSE:To provide solid lubricating film which is applied to nuts, etc., of ball screws for cosmetic equipment, has a sufficient film thickness and film thickness distribution and has excellent durability. CONSTITUTION:This apparatus forms the solid lubricating films on the nuts 20 of the ball screws by a physical vapor deposition method, such as sputtering or vacuum vapor deposition. The apparatus is provided with a vacuum chamber 1 housing a target or evaporating source 6 and the plural nuts 20. This vacuum chamber is internally provided with a nut rotating device 8 which rotates the respective nuts 20 in the posture that the center line M of the nuts inclines with the perpendicular O of the surface of the target or the evaporating source 6. The films are formed on the rolling surfaces 21 of the nuts 20 while the nuts 20 are rotated in the inclined posture by this rotating device 8.
	Япония з. № JP7011424 МПК С23С14/12; H01L37/02; H01L41/26	Заявитель ULVAC JAPAN LTD з. № JP19930147825 пр-т 1993-06-18 опубл. 1995-01-13	130.	PRODUCTION OF ORGANIC PYROELECTRIC AND PIEZOELECTRIC BODY AND DEVICE THEREFOR PURPOSE:To simultaneously produce an org. pyroelectric and piezoelectric body excellent in heat resistance and insulating property by forming a large-area polyurea film on a substrate in uniform thickness and quality with this device. CONSTITUTION:A positive bias voltage is impressed on a substrate 3, the substrate 3 is irradiated with an electron, monomers of a polyurea are vaporized in vacuum, a polyurea film being deposited and polymerized on the substrate 3 is polarized, and an org. pyroelectric and piezoelectric body is produced
	Япония з. № JP7102364 МПК С23С14/24; С23С14/12	Заявитель ULVAC JAPAN LTD з. № JP19930271309 19931004 пр-т 1993-10-04	131.	OMNIDIRECTIONAL SIMULTANEOUS VAPOR-DEPOSITION POLYMERIZER PURPOSE:To provide the polymerizer without its vaporization source container being easily broken, easy to attach and detach, without condensing the raw material monomer when deposited and polymerized and further convenient to handle.

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		опубл. 1995-04-18		CONSTITUTION:A vaporization source container 35 consisting of a bottomed metallic straight tube 34 is inserted and fitted into one end of an inlet tube 61 with the other end opened to a treating chamber 1 through an O ring 37 and airtightly connected, and a freely detachable heating cylinder 70 traveling on a guide rail 86 is provided to control the temp. of the container 35.
	Япония з. № JP7130643 МПК H01L21/027; C23C14/12; G03F7/16	Заявитель TORAY IND INC з. № JP19930294353 пр-т 1993-10-28 опубл. 1995-05-19	132.	EQUIPMENT AND METHOD FOR FORMING THIN FILM PURPOSE:To provide a thin film forming equipment and a thin film forming method which can form an antireflection film having a uniform thickness even in the case where a complicated step-difference exists on a substrate. CONSTITUTION:After the pressure is reduced by discharging the gas in a reaction vessel 20 with an exhaust means 30a, catalyst and monomer are supplied in order in the reaction vessel 20 by a gaseous supply means 30b, 30c, and finally inert gas is supplied in the reaction vessel with an inert gas supplying means 30d.
	ЯПОНИЯ В.з. № 5269430-A МПК B05D-001/36; B05D-003/02; B05D-005/00; B05D-007/14	Заявитель KAWATETSU KOHAN KK з. № JP070648 Пр-т 27 Марта 1992 Опубл. 19 Октября 1993	133.	PRODUCING HEAT RESISTING PAINT COATED STEEL PLATE FOR COOKERS OR FREEZERS - BY FORMING SILICA-CHROMATE FILM ON STEEL PLATE, APPLYING PAINT CONTG. ALUMINIUM@ AND PTFE AND BAKING. A silica-chromate film with Cr ₂ :SiO ₂ =1:0.5-3 (by wt.) is formed in a thickness of 0.02-0.8 g/m ² on a stainless steel plate or a plated steel plate. A paint, which contains 5-40 pts. wt. of Al powders and 100 pts. wt. of a 1:0.8-9 (by wt.) mixt. of TFE and other heat-resisting resin (e.g., polyether sulphone or polyphenylene sulphide), is coated over the silica-chromate film. The whole plate is baked above 300 deg. C.. The silica-chromate film was formed by immersing a base steel plate into a soln. which is given by admixing silica powders with reduced chromic acid contg. Cr ³⁺ . USE - /ADVANTAG - A heat-resisting paint coated steel plate is produced, which is used for cooking ovens or freezers. Good adhesion between the base steel plate and the paint coating is obtd
	Япония з. № JP6162579 МПК G11B7/26; C08J7/00; C08J7/04; C23C14/12	Заявитель HITACHI MAXELL LTD з. № JP19920305549 пр-т 1992-11-16 опубл. 1994-06-10	134.	METHOD AND DEVICE FOR PRODUCTION OF OPTICAL INFORMATION RECORDING MEDIUM PURPOSE:To improve durability for repeated reproducing of an optical information recording medium by improving chemical stability of a polymer compd. film as a base coating film. CONSTITUTION:A substrate with a substrate carrier bed 34 is housed in a first film forming room 12 which is evacuated to a vacuum to form a high-molecular compd. film by sputtering on the substrate. Then, the substrate with the substrate carrier bed 34 is housed in a polymer stabilizing room 13 where electric power is supplied to a UV lamp 22 and/or a heater 23 to irradiate the polymer compd. film already formed with UV rays at room temp. or in a heated state. By this method, reaction of unreacted component such as an active low mol.wt. component and free radicals included in the high-molecular compd. film is promoted to stabilize the high-molecular compd. film. Then, the substrate with the carrier bed 34 is housed in a second film forming room 14 where a recording film is formed by sputtering on the high-molecular compd. film.
	Япония	Заявитель	135.	PATTERN FORMING METHOD FOR SYNTHETIC RESIN THIN FILM

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	з. № JP6179958 МПК C23C14/04; C23C14/12; H01L23/29;	MATSUSHITA ELECTRIC IND CO LTD; з. № JP19920332954 пр-т 1992-12-14 опубл. 1994-06-28		PURPOSE:To provide a pattern forming method for a synthetic resin thin film free from remaining foreign matters on the surface of a substrate, easy in the working of a multi-ply film in a pattern forming process and having uniform film thickness and the high clarity of the pattern. CONSTITUTION:In the method for forming the pattern of the synthetic resin thin film on the substrate 3 by evaporating one or more kinds of a synthetic resin raw material monomer in vacuum from evaporating source emitting openings 5, 6 to the substrate 3 and using a mask 11 mounted at the direct front of the substrate 3, a cooling plate 10 is arranged between the emitting openings 5, 6 of the synthetic resin raw material monomer and the mask 11 and out of the region made by linking the mask 11 with the emitting openings 5, 6 of the synthetic resin raw material monomer and the pattern of the synthetic resin thin film is formed on the substrate 3. By this method, reevaporating components generated from other than the evaporating source are removed and the clear pattern of the synthetic resin thin film is obtained.
	ЯПОНИЯ в.з. № 5331626-А МПК C08J-005/18; C09K-009/02; C23C-014/12; C23C-014/32; G03C-001/73	Заявитель ОИ КАКО СО LTD з. № JP085776 пр-т 07- 04 -1992 опубл. 14 12 1993	136.	PRODN. OF ORGANIC PHOTOCHROMIC MEMBRANE FOR DISPLAYS - IN WHICH MEMBRANE IS FORMED BY HF INDUCED ION PLATING Prodn. comprises: forming a single organic photochromic cpd. membrane on the substrate or forming a plasma polymerised membrane made of composite of organic photochromic cpd. and a polymer resin. The plasma polymerised membrane is pref. formed by hF induced ion plating at a thickness of 500-5000 angstroms. USE/ADVANTAGE - The photochromic membrane is applied on accessories and displays. The thickness of the membrane is less than one twentieth that of application type. In an example, an ion plating unit was employed to prepare the PET film coated with a plasma polymerisation membrane of organic photochromic cpd. The conditions were discharge of 50W at 4 x 10 power -4 Torr in Ar atmos. to form a spironaphthox-azine plasma polymerisation membrane (620 anstroms thick) on the PET film. The blue colouring concn. under a UV ray irradiation for 3 min. was 0.557.
	ЯПОНИЯ в.з. № 6145212-А МПК C08F-002/00; C08F-002/52; C08G-085/00; G03G-009/113	Заявитель ТОМОЕГАВА SEISHISHO КК з. № JP315505 пр-т 02- 11- 1992 опубл. 24- 05- 1994	137.	POWDER SURFACE TREATMENT PROCESS - COMPRISES FEEDING POLYMERISABLE MONOMER GAS INTO VACUUM FLUID REACTOR CONTG. SUSPENDEED POWDER IN PLASMA ATMOS. TO FORM POLYMER FILM ON PARTICLES Improvement of the surface of powder comprises (1) feeding polymeric monomer gas into a vacuum fluid reactor contg. powder to be treated suspended in plasma atmos., and forming a plasma polymer film of the monomer gas on the surface of the powder. Plasma-treatment of polymer powder suspended in a vacuum fluid reactor by the feed of non-polymeric gas, is also claimed. The powder pref. is that of 10 micron or more of volume mean grain size, 0.9-22 Kg/cm3 of density, and 0.5-0.8 of mean space rate at fluidity. The polymeric monomer gas is pref. tetrafluoroethylene, hexafluorobenzene, or perfluorobenzene. The non-polymeric gas for plasma treatment is a gas contg. argon, oxygen, nitrogen, or hydrogen. ADVANTAGE - The powder treated by monomer gas or non-polymeric gas is useful for electronic powder (e.g. magnetic powder or semiconductive powder) or paint and dispersion stabilizer, or cosmetics. In an example, magnetite powder of 30 micron of mean grain size (80g) was added to a pyrex (RTM) glass reactor with the feed of tetrafluoroethylene gas (30 cc/min, and promoter gas of argon (90cc/min) and reacted in 0.6 Torr for 10 mins. to form surface-treated magnetite powder.

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	<p>ЯПОНИЯ а.з. № 2912756-B2 МПК C09D-005/25; C23C-014/12; C23C-014/24; C08F-002/00</p>	<p>Заявитель MATSUSHITA ELEC IND CO LTD; ULVAC CORP з. № JP046599 пр-т 04 -03 -1992 опубл. 28- 06 -1999</p>	138.	<p>APPTS. FOR FORMING SYNTHETIC RESIN COATING - COMPRISES EVAPN. SOURCE VESSEL HAVING OPENING DEVICE AND EVACUATING DEVICE PROVIDED WITH SYNTHETIC RESIN MONOMER TRAPS</p> <p>Process comprises evaporating two or more types of starting synthetic resin monomers in vacuum and polymerising them on the base to form a resin coating. The appts. comprises an evapn. source vessel having an opening and shutting device and a vacuum evacuating device on each of the evapn. source vessels, where each of the synthetic resin monomer traps are each provided branched from the vacuum evacuation paths. The monomer traps are pref. heated to reuse the synthetic resin monomers.</p> <p>The synthetic resin is a urea formed by polymerisation addn. reaction of diisocyanate and diamine. The synthetic resin is polyamide formed by hot polymerisation of diamine with an acid dianhydride.</p> <p>USE/ADVANTAGE - For forming insulating films for semiconductor devices and electrostatic chucks, passivation films, soft error films and dielectrics of plastic capacitors.</p>
	<p>Япония з. № JP4341559 МПК C23C14/12</p>	<p>Заявитель MATSUSHITA ELECTRIC IND CO LTD з. № JP19910112969 пр-т 1991-05-17 опубл. 1992-11-27</p>	139.	<p>PRODUCTION OF SYNTHETIC RESIN COATING FILM</p> <p>PURPOSE:To produce a synthetic resin coating film free from defects in a uniform thickness and a uniform ratio in the compsn. when two or more kinds of monomers as starting materials for synthetic resin are evaporated in vacuum and polymerized on a substrate to form a synthetic resin coating film.</p> <p>CONSTITUTION:Plural evaporating sources 5 for evaporating monomers as starting materials are arranged at the lower part of a vacuum vessel 2 and the monomers evaporated from the sources 5 are introduced into a heated mixing vessel 6 and spouted as mixed vapor of the monomers from the nozzle 8 of the vessel 6 to form a synthetic resin coating film on a substrate. By this method, a coating film having a uniform thickness, a uniform compsn. and excellent physical properties can be obtd. and the sticking of a film liable to peel off to the surface of the inner wall of the vacuum vessel can be prevented.</p>
	<p>ЯПОНИЯ В.з. № 5162243-A; МПК B32B-015/08</p>	<p>Заявитель KAWATETSU GALVANIZING CO LTD KAWATETSU KOHAN KK з. № JP327744 Пр-т 11 Декабря 1991 Опубл. 29 Июня 1993 Аналоги WO9311935-A1; AU9230952-A</p>	140.	<p>FLUORO RESIN COATED STEEL PLATE FOR HEAT RESISTANCE, DURABILITY AND ADHESION - COMPRISES SUBSTRATE TREATMENT FILM CONTG FLUORO AND HEAT RESISTANT RESINS ON SURFACE OF ALUMINIUM@ PLATED STEEL PLATE, AND THERMALLY FUSED FILM OF THERMOPLASTIC</p> <p>A fluororesin film coated steel plate obtained by forming a substrate treatment film consisting of a mixed resin of a fluororesin and a heat resisting resin on the surface of an aluminium plated steel plate, an aluminium-zinc alloy plated steel plate, an alloyed molten zinc plated steel plate or a stainless steel plate, and further forming a thermally fused film consisting of a thermoplastic fluororesin film on the substrate treatment film. This resin coated steel plate is superior not only in heat resistance, durability and adhesion but also in the adhesion, wear resistance, processability and corrosion resistance of the film.</p>
	<p>ЯПОНИЯ В.з. № 2681025-B2 МПК</p>	<p>Заявитель SUMITOMO ELECTRIC IND CO</p>	141.	<p>COATED ARTICLE WITH WATER REPELLENCY AND ANTISTICKING PROPERTY - COMPRISES STAINLESS STEEL BASE WITH ETCHED SURFACE ON WHICH IS PROVIDED COATED LAYER. A COATED ARTICLE COMPRISES A STAINLESS STEEL BASE HAVING AN ETCHED SURFACE</p>

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	B05D-007/14; C23F-001/28; C25F-003/06;	SUMITOMO ELECTRIC CO З. № JP354107 Пр-т 15 Ноября 1991 Опубл. 19 Ноября 1997 Аналоги EP543293-A3; US5773087-A;		<p>ON WHICH IS A COATED LAYER.</p> <p>Also claimed are methods for producing such an article by (1) etching the planar stainless steel base, coating it with the coated layer and shaping the resulting coated base to a desired configuration, or by providing the coated layer after: (2) sensitising the base through heating, treating with an acid, subjecting to etching and subjecting to a soln. treatment through heating at 1000-1100 deg. C; (3) immersing the base in aq. acid soln. or aq. FeCl3 soln. causing the base to be dissolved to such an extent that the surface gloss disappears, and subjecting to electrolytic etching; (4) uniformly abrading the surface through buffing or blasting to the wt. corresp. to a base thickness of 1 micron or more, then treating as (3); or (5) subjecting electrolytic etching at below 15 deg. C and/or using a mixed aq. soln. of H2SO4 and NaCl.</p> <p>The coated layer pref. comprises rubber or plastics. A partic. pref. layer comprises a fluororesin alone or a fluororesin compsn. contg. a fluororesin and a filler. The filler, present as below 20 wt.% based on the amt. of the fluororesin is selected from: (1) heat-resistant plastics comprising polyamide-imide, polyether sulphone or polyphenylene sulphide; and/or (2) inorganic pigments comprising mica, C TiO2 or F3 oxide.</p> <p>ADVANTAGE - The durable coated articles have water repellency, anti-sticking properties and stain resistance imparted to the base by the strongly adhered coated layer, and can be processed by pressing, bending etc co</p> <p>EA (JP5278160-A) The coated material is prepd. by etching stainless steel sheet and forming a coating layer on the etched surface. The coating layer consists of fluorocarbon resin which may contain less than 20 wt.% of filler. The coated material is formed into the desired shape by pressing, bending, etc.</p> <p>The coated material is prepd. by sensitising stainless steel by heating, cleaning it with acid, etching it, heat treating it at 1000 to 1100 deg.C and then forming the coating layer on it. The coated material is prepd. by dipping stainless steel in acidic aq. soln. or soln. of ferric chloride to dissolve it until it loses surface lustre. it is then subjected to electrolytic etching and the coating layer is formed on it. The surface of stainless steel is made uniform to 1 microm by buffing or blasting before the dipping. The electrolytic etching is carried out at a temp. below 15 deg.C using a mixed. aq. soln. of sulphuric acid and sodium chloride. The fluorocarbon resin includes PTFE TFE-perfluoroalkyl vinyl ether copolymer, tetrafluoroethylene-hexafluoropropylene copolymer, tetrafluoroethylene-ethylene copolymer, polychlorotrifluoroethylene, polyvinylidene fluoride, etc.</p>
	Япония З. № JP5068874 МПК B01J19/08; C23C14/12; C23C14/48	Заявитель SEIKO EPSON CORP З. № JP19910233376 пр-т 1991-09-12 опубл. 1993-03-23	142.	<p>METHOD AND DEVICE FOR IMPARTING WATER REPELLENCY WITH PLASMA</p> <p>PURPOSE:To impart water repellency to even a material of metal or glass with plasma by accelerating the fluorine-based ion generated by plasma with a bias voltage impressed on the material to drive the ion into the material surface and forcedly forming a layer contg. fluorine.</p> <p>CONSTITUTION:A vacuum vessel 1 is evacuated, and CF4 is introduced as a plasma gas. The pressure is kept at 0.1Pa, a high-frequency power source 11 is turned on, and a voltage is impressed on a plasma producing electrode 4. A high-frequency power is supplied to an insulator glass as a material 5 to be treated from a bias power source 9 (high-frequency power source), and hence a fluorine-based ion generated by the plasma is accelerated and struck against the material 5 to form a fluorine-contg. layer on the outermost surface. When a good conductor is used for the material 5, a DC voltage is impressed from a bias power</p>

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				source 9 (DC power source), and a fluorine-contg. layer is formed on the outermost surface of the material.
	Япония з. № JP5069190 МПК B23K35/40; B23K3/06; C23C14/18; C23C18/50	Заявитель TANAKA KIKINZOKU KOGYO KK з. № JP19910245142 пр-т 1991-08-30 опубл. 1993-03-23	143.	METHOD FOR FORMING SOLDER SHEET PURPOSE:To forming a solder sheet standing in a row with high dimensional precision and high positional precision and to provide a simple and easy method for the above. CONSTITUTION:A fine film of solder is formed on a base plate of a smooth surface of 'Teflon(R)', etc., with a sputtering method, etc., next, photoresist is coated on the surface of this film, and dried, next, the photoresist except the pattern part is removed by using a negative film protted with the required pattern as a mask, exposing with a exposure phenomenon, the object is achieved by removing the resist after etching this exposed fine film part with pickling, etc.
	Япония з. № JP5132759 МПК C23C14/24; B01D8/00; C23C14/12	Заявитель ULVAC JAPAN LTD з. № JP19910321360 пр-т 1991-11-08 опубл. 1993-05-28	144.	VAPOR-DEPOSITION POLYMERIZATION DEVIC PURPOSE:To eliminate the effect of a harmful unpolymerized monomer on the human body by collecting the unpolymerized monomer passing through an evacuating system in a trap and preventing the leakage of the monomer from the evacuating system. CONSTITUTION:A water-cooled trap 12 for collecting an unpolymerized monomer is provided below an opening 14 formed in the bottom wall of the vacuum treating chamber 1a of a vapor-deposition polymerization device 1, an evacuating valve 13 is furnished at the lower part, and the treating chamber 1a and an evacuating system 2 are partitioned. The monomers A and B supplied in vaporization-source container storage parts 7a and 7b are heated by a heater 9, vaporized and vapor-deposition polymerized on a substrate 3. At this time, the unpolymerized monomer, which has not been deposited on the substrate 3 in the chamber 1a, is discharged in the direction of the evacuating system 2, i.e., toward the opening 14.
	Япония з. № JP5132765 МПК C23C14/24; C08F2/34; C23C14/12	Заявитель ULVAC JAPAN LTD з. № JP19910323810 пр-т 1991-11-12 опубл. 1993-05-28	145.	VAPOR-DEPOSITION POLYMERIZATION DEVICE PURPOSE:To improve the quality of a polymer coating film by preventing the transmission of the heat of a heater to a vaporization source. CONSTITUTION:A partition plate 11 is set vertically to the bottom wall 12 of a vacuum chamber 1a, and vaporization source containers 7a and 7b are separated by the partition plate. A reflector 15 is horizontally fixed to the upper end of the partition plate 11. The reflector 15 is set directly above nichrome-wire heaters 9a and 9b, and the heat from the heaters 9a and 9b is reflected into the containers 7a and 7b. Openings 18a and 18b are formed in the reflector 15, the shape of the openings 18a and 18b varies with the position and shape of a substrate 3, and directionality is imparted to the vaporized monomer. As a result, the vapor-source monomer is efficiently heated, the transmission of the heat of the heaters to the surroundings is minimized, and the quality of a polymer coating film formed on the substrate is improved
	Япония з. № JP5132763 МПК C23C14/24; C08F2/34; C23C14/12;	Заявитель ULVAC JAPAN LTD з. № JP19910323808 пр-т 1991-11-12 опубл. 1993-05-28	146.	OMNIDIRECTIONAL AND SIMULTANEOUS VAPOR-DEPOSITION POLYMERIZATION DEVICE PURPOSE:To improve the quality of a polymer film to be formed on the surface of a material by vapor deposition. CONSTITUTION:Flange heaters 14a and 14b are embedded in both walls 19a and 19b of a vacuum treating chamber 1a, and a treating chamber heater 13 is embedded in the peripheral wall 18 to be confronted with the face of each barrel 10. A heater 15 is embedded in the wall of an evacuating pipeline 51, and heaters 16a

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	C23C14/54			and 16b are embedded in the inlet pipes 6a and 6b connected to the vaporization source containers 5a and 5b. The temps. of the heaters are independently controlled. Since the inlet pipe heaters 16a and 16b are thus provided, a monomer is not deposited in the inlet pipes 6a and 6b, the vaporization rate is not lowered, the monomer is not deposited on the inner wall of an evacuating system 2 because the heater 15 is furnished, and the vaporization is stabilized.
	Япония з. № JP5171416 МПК C23C14/12; C08J7/04	Заявитель OSAKA GAS CO LTD з. № JP19910343066 пр-т 1991-12-25 опубл. 1993-07-09	147.	PRODUCTION OF POLYSILANE ORIENTED FILM PURPOSE: To produce a polysilane film excellent in the orientation of molecules and nearly free from orientation defects by orienting a polysilane film formed on a substrate by vacuum deposition. CONSTITUTION: The surface of a silicon wafer is rubbed with cotton in one direction to improve the adhesion of a film. Polysilane synthesized by an electrode reaction with phenylmethylsilane as starting material is vacuum-deposited at 100-250 deg.C deposition temp. under 10<-4>-10<-5> Torr pressure to form a thin polysilane film of 300Angstrom thickness. The resulting polysilane oriented film enhances the mobility of carriers and attains reduced bright resistance
	Япония з. № JP5132763-A МПК C23C-014/12; C23C-014/24	Заявитель ULVAC CORP з. № JP323808 пр-т 12- 11 -1991 опубл. 28 -05- 1993	148.	MULTI-DIRECTIONAL SIMULTANEOUS VAPOUR DEPOSITION POLYMERISATION APPTS. - HAS HEATERS COVERING WALLS OF VACUUM CHAMBER AND PIPING, FOR FORMING PASSIVATION FILMS ETC. Appts. has inside a vacuum chamber, an inlet pipe for introducing the vapour of a monomer material from an external evapn. source for a polymer film, and a barrel contg. the base on which the polymer film is deposited. Heaters are provided over all of the wall of the vacuum chamber and all of the entire wall of the piping. Pref. the heaters are individually controlled. The vacuum treatment comprises a peripheral wall and two end walls, and the heaters are each individually controlled. In vapour depositing a polyimide film, pyromellitic dianhydride is supplied as the monomer material, and 4,4'-aminodiphenyl ether is supplied as another evapn. source. USE/ ADVANTAGE - To form a polymer film on the surface of an object; includes insulator films, passivation films, soft-error preventive films, dielectric films or semiconductors, etc
	Япония з. № JP5132762-A МПК C23C-014/12; C23C-014/24	Заявитель ULVAC CORP з. № JP322487 пр-т 11- 11- 1991 опубл. 28 -05 -1993	149.	VAPOUR DEPOSITION POLYMERISATION APPTS. FORMING HIGH MOL. WT. POLYMER FILM - HAS HOUSING COVERING TREATMENT CHAMBER INCLUDING HEATED VAPOUR SOURCE RECEPTACLE, SUBSTRATE HOLDER AND FAN IN HOUSING WALL In the vapour depositing polymerisation appts. to form high polymer film onto a substrate, a housing (2) is prepared to cover totally the vacuum treatment chamber which includes the vapour source receptacle, a heater for the receptacle, and a holder holding a substrate to and an opening (Q) formed at one portion of the housing wall, in which a fan is attached. ADVANTAGE - Monomer from the vacuum treatment chamber is completely exhausted out from the housing with the fan, hazardous effect for human body is reliably avoided.
	Япония	Заявитель	150.	VAPOUR DEPOSITING POLYMERISATION APPTS. GIVING HIGH QUALITY HIGH POLYMER

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	з. № JP5132761-A МПК C23C-014/12; C23C-014/24	ULVAC CORP з. № JP322486 пр-т 11- 11- 1991 опубл. 28- 05- 1993		FILM - where source monomer is fed into vapour source receptacle in vacuum chamber which has opening at bottom connected to gas exhaust system, etc. The source monomer is fed into the vapour source receptacle in the vacuum chamber and heated by a heating means. An opening is formed in the bottom wall of vacuum chamber. The opening is connected to the gas exhausting system and positioned under the receptacle. A cooling means is provided for the source monomer storing section and lower wall portion of the chamber. ADVANTAGE - High quality high polymer film is obtd. on the substrate.
	Япония з. № JP5132760-A МПК C23C-014/12; C23C-014/24	Заявитель ULVAC CORP з. № JP321361 пр-т 08 -11 -1991 опубл. 28 -05- 1993	151.	VAPOUR DEPOSITING POLYMERISATION APPTS. - COMPRISES VACUUM CHAMBER CONTG. VAPOUR SOURCE RECEPTACLE CONTG. VAPORISING HEATER, SHUTTER ABOVE RECEPTACLE AND OPENING BENEATH RECEPTACLE In a vapour depositing polymerisation appts. a source monomer is fed into a vapour source receptacle in the vacuum chamber and is vapourised by a heater. A shutter which is free to open and close is provided above the receptacle. An opening is formed in bottom wall of the vacuum chamber, underneath the receptacle. ADVANTAGE - With stabilised vapourisation rate of the monomer, high quality high polymer film is obtained.
	Япония з. № JP5065627-A МПК C23C-014/12; C23C-014/24	Заявитель ULVAC CORP з. № JP253087 пр-т 04- 09- 1991 опубл. 19- 03- 1993	152.	VAPOUR DEPOSITING POLYMERISATION APPTS. PRODUCING HIGH QUALITY FILM - IN WHICH TEMP. OF VAPOUR SOURCE HEATERS IS SET AT TEMP. SLIGHTLY LOWER THAN VAPOUR SOURCE INJECTING OUT PORT HEATERS Vapour source heaters (A) are provided for outer circumference of vapour source storing sections and vapour source injecting out port heaters (B) are provided for outer circumference of vapour source injecting out ports. Temp. of the heaters (A) is set at a temp. slightly lower than those of the heaters (B). ADVANTAGE - High quality polymer film is obtd.
	ЯПОНИЯ в.з. № 5093260-A МПК	Заявитель OSAKA GAS CO LTD ASAHI GLASS CO LTD з. № JP201548 пр-т 09- 05- 1991 опубл. 16 -04- 1993	153.	COATING METHOD OF FLUORINE RESIN TO SUBSTRATE - IN WHICH SURFACE OF SUBSTRATE IS FORMED WITH COMPOSITE METAL PLATING FILM HAVING PITCH PARTICULATE CO-PPTD. Surface of substrate is formed with composite metal plating film having fluoride pitch CF _x (x is 0.5-1.8) particulate co-pptd. and this plating film is provided with fluoride pitch coating by vacuum evapn. or liq. application. ADVANTAGE - The fluoride pitch particulate is strongly fixed to the metal plating and the film body is improved in coherence to substrate.
	ЯПОНИЯ а.з. № 3364687-B2 МПК B32B-007/02; C08J-005/18; C23C-014/12; G02F-001/35	Заявитель AGENCY OF IND SCI & TECHNOLOGY ULVAC CORP з. № JP346376 пр-т 27- 12- 1991 опубл. 08- 01- 2003	154.	HIGH POLYMER FILM IN WHICH DYE IS DISPERSED - FORMED BY DISPERSING ORGANIC DYE INTO HIGH POLYMER FILM FORMED BY VACUUM EVAPN. POLYMERISATION OF MONOMERS ON BASE PLATE A high polymer film in which dye is dispersed is formed by dispersing organic dye into a high polymer film formed by vacuum-evaporation- polymerisation of material monomer(s) on a base plate during the polymerisation. Also new is a method of forming a high polymer film in which dye is dispersed which

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				comprises forming high polymer film on a base plate by evaporating material monomer(s) in vacuum and at the same time or alternately subliming organic dye, and thus vacuum plating and dispersing the organic dye into the high polymer film. USE/ADVANTAGE - The dye-contg. high polymer film is useful for nonlinear optical material or light waveguide material. As formation of high polymer film and the dispersion of dye are carried out by dry process, control of the film thickness, concn. of dye, refractive index, etc. can be easily carried out.
	Япония з. № JP4045259 МПК С23С14/12; С23С14/24	Заявитель ULVAC JAPAN LTD з. № JP19900152358 пр-т 1990-06-11 опубл. 1992-02-14	155.	FILM FORMING DEVICE PURPOSE:To improve the yield of a polymer film when the film is vapor- deposited on a substrate and polymerized in a vacuum treating chamber by heating the wall surface of the chamber extending from a vaporization source to the substrate. CONSTITUTION:A vacuum treating chamber 1 is evacuated, raw monomers A and B in the vaporization source 3 are heated by a heater 4 and vaporized, and a polymer film is formed on a substrate 5. Meanwhile, a liq. is circulated to a substrate holder 6 through a circulating pipe 9 to keep the holder 5 at a specified temp. At this time, a heater 8 is arranged on the wall surface 7 in the chamber 1 extending from the source 3 to the substrate 5, and hence the monomers A and B on the wall surface 7 are heated and revaporized. Consequently, the deposition of the monomers A and B on the wall surface 7 is prevented, and the yield of the polymer film is improved
	Япония з. № JP4072056 МПК С23С14/12; С23С14/24	Заявитель ULVAC JAPAN LTD з. № JP19900182776 пр-т 1990-07-12 опубл. 1992-03-06	156.	DEVICE FOR FORMING FILM PURPOSE:To form a polymer film of a uniform thickness on a substrate set in a vacuum treating chamber by installing a uniform heating chamber between the substrate and the wall of the vacuum treating chamber and heating the substrate to a uniform temp. CONSTITUTION:A substrate 7 and evaporating ports 6 connected to evaporating sources 3 for evaporating monomers A, B as starting materials for a polymer film or to other external evaporating sources are set in the vacuum treating chamber 1 of the title device and a polymer film is formed on the substrate 7 by vapor-depositing and polymerizing the monomers A, B. In the device, a uniform heating chamber 10 is installed between the wall 9 of the vacuum treating chamber 1 and the substrate 7 so as to enclose the substrate 7 with the uniform heating chamber 10.
	Япония з. № JP4176863 МПК С23С14/32; С23С14/12	Заявитель MITSUBISHI ELECTRIC CORP з. № JP19900304777 пр-т 1990-11-09 опубл. 1992-06-24	157.	THIN FILM FORMING DEVICE PURPOSE:To efficiently form an organic thin film on a base plate by providing a cooling collimator between a cluster forming part and an ionization part in a cluster ion beam vapor deposition device. CONSTITUTION:Organic substance such as polyethylene is introduced into a crucible as a raw material 4 to be vapor-deposited, heated and vaporized. A base plate 23 is irradiated by cluster beams 27 to form the thin film of polyethylene. In this case, cooling collimators 29a, 29b are arranged between a cluster forming part 12 and the ionization part 18 of the vaporized particles of polyethylene. Polyethylene of the vapor deposited material is built-up on these cooling collimators. In this case, a replacement chamber 32b is

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				exhausted at high vacuum and a valve 33b is closed. A rod 31b for transfer is operated until a vacuum sealing mechanism 30 is pushed to a vacuum tank 1 of a replacement chamber 32a side. The cooling collimator 29b is inserted between the cluster forming part 12 and the ionization part 18. The raw material 4 to be vapor- deposited is filled by using a crucible replacing mechanism 35. The base plate 23 is replaced by using a base plate replacing mechanism 37. In such a way, the thin film of polyethylene is formed on the base plate 23 with excellent working rate without opening the vacuum tank to the atmosphere.
	Япония з. № JP4180553 МПК C23C14/12	Заявитель MATSUSHITA ELECTRIC IND CO LTD з. № JP19900307452 пр-т 1990-11-13 опубл. 1992-06-26	158.	FORMATION OF SYNTHETIC RESIN FILM PURPOSE:To form a synthetic resin film having excellent heat resistance at a high film forming speed on a substrate by polymerizing the vapors of plural synthetic resin raw material monomers on the substrate in a vacuum and cooling this substrate to the temp. meeting the vapor pressure of the monomers. CONSTITUTION:Two or more kinds of the synthetic resin raw material monomers are evaporated in the vacuum. The vapors thereof are introduced to the substrate and are polyemized thereon to form the synthetic resin film. The above-mentioned substrate is cooled down to the temp., at which the vapor pressure of the raw material monomer having the highest vapor pressure among the above-mentioned synthetic resin raw material monomers exhibits 10<-3> Pa, or below. For example, the substrate is cooled down to <=35 deg.C at which one of the raw material monomers, 4, 4' diphenyl methane diisocyanate, exhibits the vapor pressure of 10<-3> Pa. The reevaporation of the raw material monomers on the substrate is prevented in this way and the high-quality synthetic resin film having high quality is obtd. without lowering the film forming speed.
	Япония з.№ JP4180552-A МПК B01J-019/00; C08J-005/18; C23C-014/12; H01L-021/312	Заявитель ULVAC CORP з. № JP307286 пр-т 15 -11 -1990 опубл. 26- 06- 1992	159.	FORMING HIGH POLYMER THIN FILM FOR SEMICONDUCTOR INSULATOR FILM - by vaporising source monomer, depositing on substrate and polymerising, etc. Source monomer of the high polymer film is vaporised within a vacuum, and vapour deposited monomer. The vapour is polymerised on the substrate to form a high polymer film, and at least a two layer high polymer film is formed on the substrate. USE/ ADVANTAGE - Used for semiconductor insulator film or electrostatic chuck, etc. Cooling and heating for the substrate are not repeated during the film forming operation.
	Япония з. № JP4103636-A МПК C08J-005/18; C23C-014/34; G01N-005/02; C08L-027:12; C23C-014/12; C23C- 014/40	Заявитель NIPPON TELEGRAPH & з. № JP221070 пр-т 24- 08-1990 опубл.06- 04 -1992	160.	MOLECULAR SENSOR THIN FILM USEFUL FOR DETECTION OF FIRE - prepd. by forming halogen contg. polymer into film by high frequency sputtering Film has a thin film of halogenated C skeletons having stable radicals and conjugated pi bonds in high densities. Prepn. comprises forming a halogen-contg. polymer(s) into a thin film by high-frequency sputtering, using the polymer as the sputter target. A new molecular sensor has the film on one or both sides of a substrate. Available halogen-contg. polymers include PTFE, PCTFE, PVDF and ECTFE: they pref. contain fluorine. Available materials for the substrate include quartz, Li niobate and Li tantalate. The film is usually 100-800nm, pref. 380nm, thick. USE/ ADVANTAGE - Used for absorbing molecules onto its surface to identify them. The film improves the sensitivity to chemical substances by one order. The sensor is useful for detection of fire and gases to monitor global environments. With improved resistance to chemicals and circumstances, it is usable in organic solvents, allowing application to chemical processes.

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	<p>ЯПОНИЯ а.з. № 95017764-B2 МПК C08J-005/18; C23C-014/34; G01N-005/02; C08L-027:12; C23C-014/12; C23C-014/40</p>	<p>Заявитель NIPPON TELEGRAPH & з. № JP221070 пр-т 24 -08- 1990 опубл. 01 -03 -1995</p>	161.	<p>MOLECULAR SENSOR THIN FILM USEFUL FOR DETECTION OF FIRE - prepd. by forming halogen contg. polymer into film by high frequency sputtering Film has a thin film of halogenated C skeletons having stable radicals and conjugated pi bonds in high densities. Prepn. comprises forming a halogen-contg. polymer(s) into a thin film by high-frequency sputtering, using the polymer as the sputter target. A new molecular sensor has the film on one or both sides of a substrate. Available halogen-contg. polymers include PTFE, PCTFE, PVDF and ECTFE: they pref. contain fluorine. Available materials for the substrate include quartz, Li niobate and Li tantalate. The film is usually 100-800nm, pref. 380nm, thick. USE/ADVANTAGE - Used for absorbing molecules onto its surface to identify them. The film improves the sensitivity to chemical substances by one order. The sensor is useful for detection of fire and gases to monitor global environments. With improved resistance to chemicals and circumstances, it is usable in organic solvents, allowing application to chemical processes. (0/1)</p>
	<p>ЯПОНИЯ в.з. № 4116156-A МПК C23C016/44; C23C-016/54</p>	<p>Заявитель TERUMO CORP з. № JP231892 пр-т 31- 08- 1990 опубл. 16 -04- 1992</p>	162.	<p>FUNCTIONAL FILM MANUFACTURING DEVICE - comprises vacuum tank body with 2 preparatory chambers, sputtering chamber, polymerisation chamber, evacuating device and transfer device. In the use of a device which comprises a vacuum tank body having a pair of preparatory chambers, a sputtering chamber and a polymerising chamber, an evacuation device to evacuate each chamber, a transfer device to transfer substrates to be treated between the preparatory chambers, the polymerising chamber, and a sputtering chamber, a polymerising device provided in the polymerising chamber to form a polymerised coating on the surface of substrate by polymerisation through irradiating the substrate with plasma, and a sputtering device provided in the sputtering chamber to form a spattered coating on the surface of substrate: the surfaces of substrate to be treated are cleaned by evacuating the preparatory chambers and performing plasma discharge the substrates are transferred; and, at least, either polymerisation or sputtering is performed. ADVANTAGE - Device is used to modify polymeric porous film or polypropylene, polyvinylidene fluoride, etc. and to form an antibacterial coating on the surface. The polymeric porous film has been widely used in many fields as the film for separating materials such as filtration or dialysis. The moisture, contaminants, etc. absorbed in the atmosphere before treatments can be removed, so polymerisation and sputtering can be made stably.</p>
	<p>ЯПОНИЯ В.з. № 2680734-B2 МПК C25D-015/02</p>	<p>Заявитель MITSUBISHI HEAVY IND CO LTD з. № JP265114 Пр-т 04 Октября 1990 Опубл. 19 Ноября 1997</p>	163.	<p>COMPOSITE PLATING OF GOOD LUBRICATING PROPERTY AND WEAR RESISTANCE - BY ELECTROLYSING SUBSTRATE IN PLATING BATH CONTG. FLUORO-POLYMER E.G. PTFE COATED INORGANIC PARTICLES OF E.G. ALUMINA In composite plating by electrolysing an electroconductive substrate in a composite plating bath contg solid particles, each of the solid particles consists of an inorganic particle coated with a high polymer cpd layer contg fluorine atoms. Inorganic particle e.g. consists of alumina, silica or chromia etc. High polymer cpd e.g. consists of polyfluoroalkyl methacrylate (alkyl is ethyl, butyl or octyl etc.), polyfluoroalkyl acrylate, polytetrafluoroethylene, polyfluorovinylidene, or tetrafluoroethylene - ethylene copolymer etc. The</p>

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				composite plating is e.g. effected in a plating bath contg Co sulphate 500 g/l, Na chloride 17 g/l, boric acid 60 g/l, and the solid particles 50 g/l at pH 4-5 40 deg.C, 3 A/dm ² .
	ЯПОНИЯ В.з. № 94047755-B2 МПК C25D-015/02	Заявитель SHARP KOGYO KK З. № JP208842 Пр-т 06 Августа 1990 Опубл. 31 Марта 1992	164.	MFG. FLUORO-RESIN DISPERSIONS PROVIDING GOOD PTFE SOLN. - BY FILTERING FLUORO-RESIN DISPERSION WITH ACTIVE CARBON, ADDING CATIONIC SURFACTANT, HEATING, STIRRING, NULL ELECTROLYSING AND ADDING TO NICKEL@ PLATING BATH. Process comprises (i) filtering a fluororesin dispersion with active C to reduce the content of the stabilising agent and the nonionic surfactant to the vicinity of the min. limit necessary to avoid gelling of the dispersion; (ii) adding a trace amt. of a cationic surfactant while heating and stirring the dispersion; (iii) removing fine grains of the active C by applying null electrolysis; and (iv) adding the treated soln. into a Ni plating bath to effect plating of a composite film of Ni and fluororesin. USE/ADVANTAGE - Provides a PTFE soln. capable of producing a composite plating of composite PTFE-Ni films. (0/2)
	ЯПОНИЯ В.з. № 3203639-A МПК A47J-027/00; B05D-003/10	Заявитель KASEI NAOETSU KK З. № JP342082 Пр-т 29 Декабря 1989 Опубл. 05 Сентября 1991	165.	METAL PLATE FOR PLASTIC WORKING AND COOKING UTENSILS - PREPD. BY COATING ROUGHENED METAL PLATE WITH FLUORINE-CONTG. RESIN E.G. PTFE AND ALKALI ETCHING. The dispersion is coated on the patterned surface by spraying, flow coating, roll coating, spin coating or die coating. USE/ADVANTAGE - The metal plate is used for mfg. cooking utensils having well-defined signs, letters, figures or patterns and coated F-contg. resin film only by the plastic deformation. @(5pp Dwg.No.0/0)
	ЯПОНИЯ а.з. № 2819170-B2 МПК C08J-005/18; C23C-014/12; C23C-014/24	Заявитель ULVAC CORP з. № JP277188 пр-т 26- 10- 1989 опубл30 -10- 1998	166.	PRODN. OF POLYMERIC FILM CONTG.. dispersed semiconductor fine powder - comprises vaporising feed monomer and sublimating semiconductor under vacuum to deposit on film as fine powder. Prepn. of a polymeric film contg. a dispersed semiconductor fine powder comprises vaporising under vacuum, a feed monomer, deposited on a substrate and polymerised to give a polymeric film, and, at the same time, a semiconductor material is sublimated and deposited on the film by the attenuation of its kinetic energy and its fine powder is dispersed in the polymeric film. Pref. the kinetic energy of the semiconductor fine powder is attenuated by the reflection by means of a reflector. The feed monomer is, e.g. 2,2-bis(4-aminophenyl) hexafluoropropane or 2,2-bis(4-(4-aminophenoxy)phenyl) hexafluoropropane. The semiconductor material is e.g. CdS, CdSe or ZnTe. The degree of vacuum of the process is 1x10 power-1 - 1x10 power-5 Torr. The temp. of the evapn. of the feed monomer is about 200 deg.C. The temp. of the sublimation of the semiconductor material is about 600 deg.C. USE/ ADVANTAGE - The polymeric film is used as a non-linear type optical element for optical electronics and a coloured filter for optical device. In it, the semiconductor fine powder is uniformly dispersed.

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	ЯПОНИЯ в.з. № 3104857-А МПК B05D-003/10; B32B-009/00; C23C-014/12; G01N-021/35	Заявитель CENTRAL GLASS CO LTD з. № JP241389 пр-т 18 -09- 1989 опубл. 01- 05- 1991	167.	FLUORINE-CONTG. RESIN COATED POTASSIUM BROMIDE SHEET FORM BODY - MADE BY VACUUM PLATING AND USED AS WINDOW IN IR SPECTROPHOTOMETRY. The KBr sheet form body has a F-contg. resin having 600-10000 average molecular wt. and 10-300 nm in thickness, formed on a KBr sheet form body. The KBr sheet form body is made by vacuum plating using a F- contg. resin having 600-10000 average molecular wt., as a target. USE - For infrared spectrophotometry
	ЯПОНИЯ в.з. № 3170400-А МПК C08J-003/28; C23C- 014/12; C30B-029/58;	Заявитель TOSHIBA КК (ТОКЕ) з. № JP219395 пр-т 25- 08- 1989 опубл. 23- 07- 1991 Аналоги US5061509-А DE69016134-Е EP414560-В1	168.	POLYIMIDE HAVING IMIDE AND DECOMPOSABLE BONDS IN MAIN CHAIN – IS SUBJECTED TO ENERGY UNDER VACUUM TO DEPOSIT THIN FILM ON SUBSTRATE. A polyimide having in the polymer main chain imide bonds and decomposable bonds is subjected to energy under vacuum to break the decomposed bonds and to deposit a polyimide thin film on a substrate. The energy is imparted to the film by heating, sputtering, and/or light or electron beam radiation. The substrate temp. is 50-200 deg.C. The growth rate of the polyimide thin film is 1-100 nm/min.. In forming a polyimide liq. crystal orientation film, the film is formed in an oblique direction relative to the substrate. USE/ ADVANTAGE - The thin film can be an insulating protective film for a semiconductor device, a dielectric film for a capacitor or a liq. crystal(s) orientation film (1).
	ЯПОНИЯ в.з. №2182766-А МПК C09D-005/00; C09J-005/00	Заявитель FUJI GOMU КК з. № JP002111 пр-т 10 -01- 1989 опубл. 17- 07- 1990	169.	PRECISION COATING PROCESS - BY INJECTION OR COATING OF LIQ. ADHESIVE THEN EVACUATING COATING CHAMBER BY VACUUM. Process comprises coating or injecting liq. adhesive or material, e.g. polymer material by the coating device. After injecting of the material with pressure, the remaining pressure in the device is evacuated by vacuum to prevent liq. dropping. The device is driven by the switch (Sw 1), and the relay (Y1) drives the solenoid switch (SL 1) after elapsing delay time and charges pressure in the syringe (1) to outlet liq. adhesive from the needle (2). Anything remaining in the syringe is evacuated. USE/ADVANTAGE - Used for precision coating of hard disk cover, wrist watch O ring, or small vibration proof rubber oil injection, etc. The process prevents dropping of adhesive by evacuation of remaining pressure and is optimum for precision coating.
	Япония з. № JP2145763-А МПК B05D-003/10; C08F-002/00; C08G-085/00; C23C-014/12	Заявитель MATSUSHITA ELECTRIC WORKS LTD з. № JP299094 пр-т 25-11- 1988 опубл. 05- 06- 1990	170.	FORMING POLYMER FILMS - BY DEPOSITING POLYMER FILM ON OBJECT WHILE SIMULTANEOUSLY HEAT-VAPORISING 2 OR MORE MONOMERS Deposition of a polymer film of an object by simultaneously heat- vaporising 2 or more monomers in vacuum is claimed where, a solidified monomer is vapourised under pressure, while the object is rotated inside a barrel during the film deposition. USE ADVANTAGE - Provides a uniform film on electronic parts etc which functions as insulating films, water-proof films, surface protective films of metals, circuit printing etc. Evapn. of the monomers is pref. carried out under a pressure of 0.2 - 0.01 kg/cm2. Monomers pref. used in the process include those of condensation polymerisation type polymers, such as of polyamide, polyimide, and polyester, and solidification is conducted by melting at 100 - 300 deg.C and cooling.
	Япония	Заявитель	171.	FILM COATED SPINNING NOZZLE - IS COATED WITH FILM OF CROSSLINKED POLYMER OF

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	з. № JP1201511-A МПК C23C-014/12; D01D-004/04	KURARAY CO LTD з. № JP022579 пр-т 01- 02 -1988 опубл. 14- 08- 1989		<p>FLUORO RESIN OR SILOXANE! RESIN</p> <p>The spinning nozzle is coated with a film of crosslinked polymer of fluoro resin or siloxane resin of 500-10000 Angstrom thickness onto nozzle surface. The fluoro cpd. is e.g. ethylene tetrafluoride, propylene hexafluoride or propane octafluoride. Siloxane cpd. is a organosilicon cpd., such as vinyl trimethoxysilane, methyl trimethoxysilane, dimethyl dichlorosilane or dimethyl trimethyl silylamine. Any plasma generator, which is capable of generating low- temp. plasma may be used.</p> <p>ADVANTAGE - The film coated spinning nozzle may be used for melt, dry or wet spinning, esp. melt spinning of PET. Spinning condition was good, no breaking of single fibre occurred and amt. of fuzzing was 0/100 kg. of PET. When using non-coating nozzle, spinning condition was not satisfactory, breaking of some single fibres occurred and amt. of fuzzing was 3-100 kg. of PET.</p>
	ЯПОНИЯ а.з. № 94009918-B2 МПК B05D-007/24; B32B-027/30; C23C-014/12	Заявитель CENTRAL GLASS CO LTD з. № JP136467 пр-т 02 -06 -1988 опубл. 09- 02- 1994	172.	<p>FLUORINE-CONTG. RESIN COATED BODY - MFD. BY COATING MATRIX WITH RESIN BY VACUUM PLATING</p> <p>The resin coated body has F-contg. resin having 600-1500 mean molecular wt. coated on a matrix. The resin coated body is made by coating a matrix with the F-contg. resin by vacuum plating method. USE - For F-contg. resin coated body, partic. excellent of lubricity, and for surface modification of materials which are likely to deform by thermal hysteresis. The resin coated body has F-contg. resin having 600- 1500 mean molecular wt. coated on a matrix. The resin coated body is made by coating a matrix with the F-contg. resin by vacuum plating method.</p> <p>USE - For F-contg. resin coated body, partic. excellent of lubricity, and for surface modification of materials which are likely to deform by thermal hysteresis.</p>
	Япония з. № JP63195261 МПК C23C14/12; C23C14/34	Заявитель NIPPON TELEGR & TELEPH CORP з. № JP19870026364 пр-т 1987-02-09 опубл. 1988-08-12	173.	<p>PRODUCTION OF LUBRICATIVE FILM OF FLUOROCARBON POLYMER</p> <p>PURPOSE: To obtain a lubricative film having a long service life, a low coefft. of friction and superior chemical resistance, by sputtering a fluoropolymer target with plasma of gaseous fluorocarbon.</p> <p>CONSTITUTION: Substrates 3 and a fluoropolymer target 4 are set in a vacuum vessel 1. Gaseous fluorocarbon mixed optionally with an inert gas is introduced into the vessel 1 and plasma is generated by impressing high frequency voltage to form films on the surfaces of the substrates 3.</p>
	Япония з. № JP63282254 МПК C23C14/12	Заявитель SUMITOMO ELECTRIC IND LTD з. № JP19870115461 пр-т 1987-05-11 опубл. 1988-11-18	174.	<p>PRODUCTION OF THIN FLUORORESIN FILM</p> <p>PURPOSE: To produce a thin fluoro-resin film having superior adhesion to a substrate and free from pinholes by depositing fluoro-resin on the substrate by electrolytic elimination.</p> <p>CONSTITUTION: Polytetrafluoroethylene having a prescribed mol.wt. is used as org. starting material and held on a porous metal 1. The metal 1 is heated to a prescribed temp. with a heater 3 to melt the starting material. A prescribed voltage is impressed between the metal 1 and an electrode 2 placed opposite to the metal 1 with a space in-between. The starting material is extracted into a vapor phase as molecular ions or electrically charged particles and deposited on a substrate 4. Thus, a thin film of a tetrafluoroethylene oligomer having satisfactory water repellency, <=1mum thickness and high adhesion to the substrate is</p>

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				formed on Al foil 4 as the substrate. The mol.wt. of the film can be increased by plasma-polymerizing the film.
	Япония з. № JP1087768 МПК C23C14/34	Заявитель HITACHI LTD з. № JP19870242490 пр-т 1987-09-29 опубл. 1989-03-31	175.	MULTIFUNCTION VACUUM PLATING DEVICE PURPOSE: To form multi-layered films by the same vacuum vessel and to form the inorg. films having high purity by segmenting a vacuum plating chamber to org. film and inorg. film forming regions, providing targets to the respective regions and constructing a device in such a manner that a substrate can be opposed to either of the targets at proper times. CONSTITUTION: A copper film is formed by sputtering on, for example, the polytetrafluoroethylene (PTFE) substrate 6. The substrate 5 faces the PTFE target 5 in the figure. A substrate rotating and mounting jig 9 is rotated to direct the substrate toward a copper target 4 electrode 3 side in the case of forming the copper film. Sputtering is then executed under prescribed conditions to form the copper film on the substrate 6. The target 6 is kept mounted to the jig 9 and is opposed in this state to the target 5. The sputtering is then executed under the prescribed conditions to form the PTFE film on the copper film. The contamination in the inorg. film forming chamber 7 is suppressed by providing a partition plate 2 and adequately maintaining the spacing between the inside circumference and the jig 9.
	ЯПОНИЯ а.з. № 93032468-B МПК C23C-014/26; C23C-016/00; C23C-014/24; C23C-014/12	Заявитель RES DEV CORP JAPAN; SHINGIJUTSU KAIHATSU КК; HATTORI S; ТАКАНАГИ Т; ISHITANI А; з. № JP308426 пр-т 04- 12 -1987 опубл. 17- 05- 1993 Аналоги US5007372-A, EP319347-B1; DE3850941-G,	176.	VACUUM DEPOSITION APPTS. - includes substrate and spouting cells in vacuum chamber with means to prevent impurities being mixed with deposited film Vacuum deposition appts. includes: one or more substrates (13) to be coated; one or more spouting cells (2) charged with material (5) to be vapour deposited; and a mechanism for preventing impurities from mixing into the vapour-deposited film, pref. collimators (2c) installed substrate centre. Pref. the collimator is held at a lower temp. than the cell or substrate. ADVANTAGE - Deposited film is free of impurities from the internal surfaces of the chamber; and material can be deposited which to thermal decomposition.
	ЯПОНИЯ в.з. № 63195261-A МПК C08J-007/00; C23C-014/12	Заявитель NIPPON TELEGRAPH & TELEPHONE CORP з. № JP026364 пр-т 09- 02 -1987 опубл.12 -08 -1988	177.	FLUOROCARBON TYPE HIGH MOLECULAR LUBRICANT FILM PRODN. - INVOLVES DEPOSITING A FILM FORMED FROM FLUOROCARBON GAS AND FLUORO POLYMER, ON E.G. SILICON WAFERS BY SPUTTERING A fluorocarbon type gas such as CF ₄ gas or similar type gas or a mixed gas comprising a fluorocarbon type gas and an inert gas is introduced as a plasma gas into a vacuum chamber (1) so as to deposit fluoride type gas onto the fluoro polymer spaced as a target (4) in it, when carrying out plasma sputtering on the surface of fluoro polymer such as PTFE or similar fluoro polymer mounted as a target (4) on a HF electrode (6). A fluorocarbon coating is deposited on the surface of the baseplates such as the Si wafers etc. fixed under the bottom surface of the holder (2). USE/ADVANTAGE - A fluorocarbon coating (film) showing good

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				lubrication, high moisture proof, good electroconductivity, fine structure and good protectivity can be formed (deposited) on the surface of articles such as magnetic disks, electronic parts, machine parts etc.
	ЯПОНИЯ а.з. № 94008503-В2 МПК С08J-007/00; С23С-014/12	Заявитель CENTRAL GLASS CO LTD з. № JP075977 пр-т 31 -03- 1987 опубл. 02- 02 -1994 Аналоги US4863762-А GB2203758-А FR2613257-А DE3811163-А IT1216667-В	178.	COATING FILM OF FLUORINATED RESIN - BY PHYSICAL VAPOUR DEPOSITION USING, AS SOURCE MATERIAL, FLUORINE-CONTG. POLYMER OF MOL. WT. BELOW 5000 Coating film of fluorine-contg. polymer (I) is mfd. by physical vapour deposition on a substrate using a mol. wt.-reduced F-contg. polymer (mol. wt. below 5000) (II) as source material. Technique used is vacuum evapn., atomisation or ion implantation, pref. vacuum evapn. in which (II) is heated at 100-350 deg.C at not above 13.3 Pa; (II) is PTFE, PCTFE, PVDF, PVF, or copolymer of TFE with ethylene, hexafluoropropylene, or perfluoroalkoxyethylene; substrate surface is metal, organic polymer or inorganic non-metallic material. ADVANTAGE - (I) is useful for coating precision parts, e.g. of watches, cameras, etc. to improve frictional properties, for coating electronic parts, floppy discs, etc. to improve stability and water resistance, etc. Process enables prodn. of a good coating without unnecessary overheating of the substrate (unlike prior-art processes using high mol. wt. polymer).
	ЯПОНИЯ в.з. № 1116063-А МПК С23С-014/12	Заявитель MATSUSHITA ELECTRIC WORKS LTD з. № JP271135 пр-т 27- 10- 1987 опубл. 09- 05- 1989	179.	MFR. OF POLYMER FILM - COMPRISES EVAPORATING A SPECIFIC BIS-MALEIMIDE CPD. TO FORM HEAT RESISTANT HOMOGENEOUS FILM Polymer film is made by evaporating a bis-maleimide of formula (1) in vacuum to polymerise it to form the polymer film comprising bis- maleimide polymer on a surface. In (I), Ar is (where X is -O-, -SO ₂ -, or -CH ₂ -). USE - Used for forming good heat resistant and homogeneous polymer film on a surface by easy control of vapour plating and polymerisation.
	ЯПОНИЯ в.з. № 1136102-А МПК С23С-014/12; G02В-001/08; G02В-005/30	Заявитель MITSUI TOATSU CHEM INC з. № JP293996 пр-т 24- 11- 1987 опубл. 29 -05- 1989	180.	POLARISING FILM FOR LCD, FILTERS, CRT, etc. - comprises amorphous polymer film having layers of dyestuff mols. and pigment mols. by ionising vapour deposition. Polarising film comprises film or sheet consisting of amorphous polymer, having layers of dyestuff mol. and/or pigment mol. formed on the film or sheet by ionising vapour deposition method, pref., by ion plating or ion cluster beam process. USE - For liq. crystal displays, hue variable filters, variable transmittance sunglasses, photographic filter, cathode ray tubes, and reflection preventive filter of displaying parts of instruments, having improved polarisability, and mechanical strength.
	ЯПОНИЯ а.з. № 96015758-В2 МПК В29С-065/48; В29С-065/78	Заявитель KINYOSHA KK (KINY) з. № JP055226 пр-т 12- 03- 1987 опубл. 21 -02- 1996	181.	COVERING RUBBER ROLLS WITH FLUORINE RESIN TUBES - by placing fluorine resin tubes in vacuum containers and inserting rubber rolls in them. Fluorine resin tube (3) is suspended in a vacuum container (2) by using a holding ring (4) and to tightly close a space between the tube and the upper end of the vacuum container by using a spacer (6) and a packing (7). A rubber roll (9), with a dia. slightly larger than that of the fluorine resin tube, coated with adhesive (8) on its whole outer surface, is inserted and air in the vacuum chamber evacuated to produce a rubber roll tightly covered with a fluorine resin tube. USE/ ADVANTAGE - Employed in a fixing device of a photocopier. The fluorine resin tube tightly cover the rubber roll without wrinkles.

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	ЯПОНИЯ в.з. № 63019689-А МПК С23С-014/12; G03G-015/20	Заявитель RICOH КК (RICO) з. № JP165089 пр-т 14 -07 -1986 опубл. 27-01- 1988	182.	MFR. OF HEATING FIXING ROLLER HAVING COVER LAYER OF RESIN FLUORIDE - comprises sealing, depositing metallic layer, and vacuum depositing resin fluoride Base material of heating roller is sealed in vacuum chamber; metallic layer is deposited on peripheral surface of the roller and thereafter resin fluoride is vacuum-deposited 15 micro m thick on upper surface of the metallic layer except both ends in axial direction of the roller. ADVANTAGE - Prevents prodn. of defect of film on covering layer of Teflon (RTM), and eliminates process of smoothing surface.
	ЯПОНИЯ в.з. № 62164737-А МПК В29С-059/16; С08J-007/00	Заявитель TOSHIBA КК (ТОКЕ) з. № JP004115 пр-т 14 -01 -1986 опубл. 21 -07 -1987	183.	PROCESSING ORGANIC POLYMER MATTER - BY SELECTIVELY IRRADIATING WITH LASER AND REMOVING IRRADIATED PARTS In processing part of an organic polymer matter, the organic polymer matter is selectively irradiated with laser and then the parts of the organic polymer matter irradiated are removed by heating or etching. The organic polymer matter is PTFE or thermosetting 1-2 polybutadiene. The laser source is excimer laser. A first layer wiring is formed on support base. Thermosetting 1-2 polybutadiene is coated on the wiring by spin coating method and cured at 200 deg.C for 30 mins. to form an organic polymer matter 20 microns thick. The organic coat is selectively irradiated with KrF laser (wavelength: 248nm). After irradiation for 3 sec., the organic coat is heated to 300 deg.C in a vacuum to evaporate the irradiated parts of the polymer, to obtain through holes 120 micron in dia. Cu is evapd. on the through hole.
	Япония з. № JP62235464-А МПК С23С-014/12; С30В-023/00	Заявитель NIPPON TELEGRAPH & TELEPHONE CORP з. № JP279071 пр-т 13 -12- 1985 опубл. 15- 10 -1987	184.	MACHINE FOR PRODUCING ORIENTED POLYMER FILM - has more than two separate vapour sources, shutters above sources, device for directing ion beam etc.Machine comprises more than two separate vapour sources, shutters disposed above the respective vapour sources, a device for directing ion beam towards a substrate, a measuring device for monitoring the orientation in the polymer film formed on the substrate, and a controlling device for separately moving the individual shutters in response to the measurement signal.
	ЯПОНИЯ в.з. № 61201770-А МПК С08F-002/52; С08J-005/18; С23С-014/12	Заявитель MIYATA S з. № JP041435 пр-т 01 -03- 1985 опубл. 06 -09 -1986	185.	ORIENTED ORGANIC THIN FILM PREPN. - BY VAPOUR DEPOSITION OF ORGANIC POLYMER E.G. POLYETHYLENE, COMPRISES IMPRESSING DIRECT CURRENT ELECTRIC FIELD BETWEEN SOURCE AND SUBSTRATE An oriented thin org. film is prepd. by housing an org. polymer in a heat vaporisation source, arranging source to face oppositely to a substrate coated with the vaporised particles in a vapour deposition chamber, impressing a DC electric field between source and the substrate,maintaining the degree of vacuum in chamber at 1-10 power -5 mmHg forming a hf discharge area between source and the substrate, thus forming a thin film of polymer on the substrate. Pref. polymer is constituted primarily of recurrent units -(CH ₂ CXY)- (X and Y are H, CH ₃ or halogen) and has 300-5,000,000 mol. wt., specifically, polyethylene, polyvinylidene fluoride, PVC or polypropylene or copolymer, e.g. polyethylene PTFE, polyvinylidene fluoride, polytrifluoroethylene etc.. A superthin film of org. polymer of polyethylene, polyvinylidene fluoride, PVC or polypropylene with high adhesion to a substrate is formed without generating defects e.g. pinholes. The

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				control of the structures of the film is possible and the reproducibility is satisfactory. The orientation is effected to high degree, so an oriented org. film with uniform surface is obtd. Film is used as an oxidn. preventing film of a metal surface, improvement of abrasion resistance, reflection prevention of Igass or metal, clouding preventing film, optical-waveguide element or modulating element. Insulative film for MIS, or MIM type rectifying device, etc..
	ЯПОНИЯ з. № JP62146256-A МПК B05D-003/10; C08F-002/00; C23C-014/12; G11B-007/26	Заявитель SEIKO EPSON CORP з. № JP286453 пр-т 19- 12- 1985 опубл. 30- 06- 1987	186.	FORMING OF ORGANIC PROTECTIVE FILM - UNDER VACUUM, BY APPLYING BIAS VOLTAGE TO THIN FILM, FOR PHOTOMAGNETIC RECORDING Protective film is formed in vacuum by applying bias voltage on a thin film formed previously without leakage of the system, introducing inert gas and monomers into vacuum, to generate active species of the monomers, and polymerising a number of monomers on the thin film to be protective film. USE/ADVANTAGE - Degradation of thin film formed by the vacuum film forming method, due to inert gas, water or solvent, can be prevented, leakage time and leakage gas can be reduced, simplifying protective film formation processes, because the thin film formed in vacuum is not exposed to air before and during formation of protective film. The method is used for protecting photomagnetic recording layer. In an example in forming photomagnetic recording media having upward or downward direction of magnetisation Tb(terbium)-Fe photomagnetic recording layer (1000 angstroms thick) was deposited by sputtering, followed by introducing p-xylene monomers and inert gas in the vacuum chamber, to generate plasma, and applying bias voltage between the chamber and the thin film to control polymer film forming rate and quality. The Tb-Fe system layer coated with epoxy light curing resin protective layer had Kerr angle of rotation of 0 deg. 12 mins. which was almost constant after 200 days ageing.
	ЯПОНИЯ в.з. № 94062978-B2 МПК C10M-107/38; C10M-111/04; C23C-014/06; C23C-014/12	Заявитель NIPPON TELEGRAPH & TELEPHONE CORP з. № JP179326 пр-т 16 -08- 1985 опубл. 17 -08 -1994	187.	SPUTTERING SOLID LUBRICATING FILM ONTO A SUBSTRATE - BY PRETREATING VIA SPUTTERING WITH MOLYBDENUM SULPHIDE AND THEN SPUTTERING PTFE USING PTFE TARGET AND HIGH ENERGY ATOM BEAMS The substrate is sputtered with polytetrafluoroethylene film by irradiating high speed atomic beams onto polytetrafluoroethylene target. USE/ ADVANTAGE - Polytetrafluoroethylene film is firmly bonded to the substrate and has high moisture-impermeability and a low friction coefft.
	ЯПОНИЯ в.з. № 60191435-A МПК C23C-014/12; G11B-005/85	Заявитель HITACHI MAXELL KK з. № JP046080 пр-т 10- 03- 1984 опубл. 28 -09- 1985	188.	APPTS. FOR MFG. MAGNETIC RECORDING MEDIUM, e.g. tapes - includes partitioned vacuum tank, plasma polymerisation chamber and substrate guide chamber Appts. has a vacuum tank for vacuum depositing ferromagnetic material onto a substrate and plasma polymerising monomer gas of high mol. organic cpd. The vacuum tank is partitioned into a vacuum deposition chamber, 1 or more plasma polymerisation chambers and substrate running guide chamber having running guides to guide the substrate to the vacuum deposition chamber and plasma polymerisation chamber where a top coat and/or back coat of polymer are formed on the ferromagnetic film.
	ЯПОНИЯ	Заявитель	189.	FORMATION OF ORGANIC THIN FILMS - by vacuum-deposition of oligomers or Organic thin films are

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	а.з. № 91017902-В МПК С10М-111/04; С23С-014/06;	ULVAC CORP з. № JP206178 пр-т 03- 10- 1984 опубл. 11 -03- 1991		formed by vacuum evaporating of oligomers or monomers (1) and photopolymerisation initiators (2) from sepd. sources to deposit a mixt. having a given compsn. on a substrate; then curing the deposited mixt. by UV-light irradiation. (1) include epoxyacrylate, urethane-acrylate, polyester-acrylate or the like. (2) are e.g. benzyl, benzophenone, benzoin or alkylethers. A 0.5 microns thick organic film was formed on a Al-coated polyester tape 12 microns thick by vacuum-depositing a mixt. of 100 pts. wt. of epoxyacrylate and 3 pts. wt. of benzoin-alkylether under a pressure 10 power-3 Pa and irradiating a 160 W UV-light for 5 min. while running the tape at 0.1 m/min. USE/ADVANTAGE - To form organic thin films on plastic films or sheets, such as insulator films for ICs or condensers. Uniform organic thin films can be formed continuously with the same appts. used for thin metallic films, without using flammable pollutive organic solvents. Dust contamination is effectively prevented.
	ЯПОНИЯ в.з. № 60145372-А МПК С08J-007/04; С23С-014/12	Заявитель FURUKAWA ELECTRIC CO LTD з. № JP000830 пр-т 09- 01- 1984 опубл. 31 -07- 1985	190.	APPLYING COATING OF HEAT RESISTANT AROMATIC RESIN - BY VAPOUR DEPOSITION UNDER REDUCED PRESSURE NEAR SUBSTRATE Aromatic heat resistant resin is heated to above 350 deg.C under pressure lower than 1 atmos. in the vicinity of the coating substrate. Vaporised resin adheres to the substrate. Resin contg. -(p-C6H4-CO-O)- is esp. desirable, pref. polyethylene terephthalate and polycarbonate. USE/ADVANTAGE - Easy coating is obtd. regardless of the extrusionability or paintability of the resins. In an example, 5g polycarbonate powder and 1g Cu2O powder mixt. was heated under vacuum (0.01 Torr) at 500 deg.C using a resistance heater. Cu-substrate placed 20 mm above the heater was coated with 40 micron thick resin coating after 5 min. Little solubility of the coating was observed - 5% (to xylene), 3% (methylethylketone) and 6% (m-clesol). Pencil hardness (H) was 4, softening temp. was 280 deg.C.
	ЯПОНИЯ в.з. № 60195035-А МПК С03С-017/32; С08J-007/04; С23С-014/12	Заявитель UNITIKA LTD з. № JP052650 пр-т 19- 03 -1984 опубл. 03 -10- 1985	191.	ANTI-DAZZLING TRANSPARENT SHAPED PROD. - includes coating of thin organic polymer film formed by vapour phase coating process. The transparent shaped product is coated by vapour phase coating process with a thin organic polymer film having fine unevenness on its surface. The vapour phase coating is e.g. vacuum plating, ion plating, spattering or chemical vapour phase growth in which monomer gas is fused to the inside of vacuum system together with inert gas so as to be subjected to plasma polymerisation etc. The film produced is e.g. polyvinylidene fluoride . USE/ ADVANTAGE - The treated prod. exhibits very decreased cloudiness and glossiness and improved transparency. It is e.g. film, sheet, board etc..
	ЯПОНИЯ В.з. № 61138567-А МПК В05D-005/08; В05D-007/14	Заявитель NIPPON KOKAN КК з. № JP260011 Пр-т 11 Декабря 1984 Опубл. 26 Июня 1986	192.	NON-STICK STEEL PLATE PRODN. - BY COATING WITH PTFE AND OTHER HEAT RESISTANT RESIN. A paint consisting of a mixture of PTFE and other heat resisting resins e.g., polyphenylene sulphide or polyether sulphone is coated on a stainless steel or plated steel plates e.g., Zn, Al, Ni, or Cr plated. Then the coating is baked, generally at 350-400 deg. C, the plate is rolled under pressure to roll spread the coating and make the surface smooth. Alternatively polyphenylene sulphide resin, polyether sulphone resin, or their mixture is preliminary coated on the surface before the paint is coated, as a primer coating. Opt. anti-corrosion agents, like Sr-

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				related inorganic pigments are added to the primer coating paint. ADVANTAGE - The plate is used as frying pan, heating plate, roof plate of ovens which require heat resistance up to 260 deg. C, being press mouldable without the coating peeling off, non-adhesive, and non-corrosive
	ЯПОНИЯ В.з. № 87010704-В МПК B05D-003/00; B05D-007/14; C23F-007/00	Заявитель НИККЕН ТОСО КОГЬО З. № JP063779 Пр-т 13 Апреля 1983 Опубл. 07 Марта 1987	193.	FORMING STRONGLY-ADHERING PTFE COATING ON METAL SURFACE - BY BAKING LIQ. TFE DISPERSION ON SURFACE UNDER LOW PRESSURE. The dispersion is applied onto a metal surface and then baked under low pressure to obtain a coated film. The metal surface is previously derusted and degreased. The degreased surface may be roughened. The baking is performed in a vacuum oven of 10 power (-3) torr at 380-320 deg.C for a predetermined time. The in-oven temp. is lowered down to 40-100 deg.C, while holding the interior of the oven at the same deg. of vacuum. The interior is then rapidly cooled by introducing air. USE/ADVANTAGE - A PTFE coating of excellent adhesiveness is formed on a metal surface without the need to apply a primer. Fine cavities in the surface are filled with the liq. suspension, thus improving adhesion
	ЯПОНИЯ з.№ JP88038424-В2 МПК B05D-003/06; C23C-014/12; G03F-007/16; H01L-021/30	Заявитель НИТАСИ LTD з. № JP190898 пр-т 14 -10 -1983 опубл. 29- 07- 1988 Аналоги US4604294-А;- KR8601860-В; EP140240-В; DE3472574-Г	194.	FORMING ORGANIC THIN FILM ON SUBSTRATE - by vacuum vapour deposition Organic thin film, esp. a light- or radiation-sensitive resist film, is formed on a substrate by vacuum vapour deposition, which comprises exposing an organic cpd. as a vapour source to a laser beam having an energy level corresp. to that of the chemical bond of the organic cpd., under vacuum, to sputter the organic cpd. onto the substrate surface. Pref. laser beam has wavelength 190-400 nm and power density 0.5-30 J/cm ² . Sputtering is pref. carried out under a vacuum of 10 power minus 8 to 10 power minus 2 Torr. Process has the advantage of being a dry process, e.g. the film is free from pin holes, and also the chemical structure of the organic cpd. is retained in the film.
	ЯПОНИЯ з. № 60067657 МПК C23C14/24 ; C23C14/12	Заявитель ТОКЬО ШИБАУРА ELECTRIC CO TOSHIBA КК з. № JP19830173242 пр-т 1983-09-21 опубл. 1985-04-18	195.	<u>VACUUM VAPOR DEPOSITION METHOD</u> PURPOSE:To obtain a high purity thin film excellent in crystallinity, by providing a low temp. wall in the vicinity of an evaporation source, and vapor depositing only a high vapor pressure component to a substrate. CONSTITUTION:In the vicinity of an evaporation source of an org. compound (e.g., anthracene, naphthalene, tetracene or perylene), a wall 13 having a temp. lower than that of the evaporation source and communicated with a low temp. apparatus 3 is provided. The low vapor pressure component in vapor generated from the evaporation source 11 is condensed and collected by said low temp. wall 13 and only a high vapor pressure component is allowed to reach a heated substrate 8 to be vapor deposited thereto. By this method, a high purity thin film excellent in crystallinity is obtained
	ЯПОНИЯ а.з. № 87045316-В МПК C23C-014/12; C23C-022/24;	Заявитель ТОЙО СЕЙКАН КАЙША LTD з. № JP162517 пр-т 06 -09 -1983	196.	CORROSION RESISTANT SURFACE FINISHED STEEL SHEET - has chromium-contg. layer and phenol cpd. coating layer, suitable for food containers etc. Sheet consists of a steel sheet, a Cr-contg. layer on the steel sheet surface, and an organic coating layer consisting of hydroxymethyl gp.- contg. phenol series cpd. or polycondensn. prod.. Cr-contg. layer pref. consists of a lower metallic Cr plating layer of up to 300 mg/m ² and an upper non-metallic Cr layer

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	C23C-028/00; C25D-011/38	опубл. 25-09-1987		consisting of Cr oxide and hydrated Cr oxide and having an amt. of 1 - 60 mg/m ² . Organic coating layer is e.g. produced by contacting the steel sheet with the vapour of the organic cpd. such as o-hydroxymethyl -p-cresol, o-hydroxymethyl-p -t- butylphenol, or mono-, di- or tri-methylol deriv. of bisphenol A etc. at 150 - 300 deg.C. ADVANTAGE - The steel sheet shows an excellent corrosion resistance and adhesion to organic adhesive, and it is suitable as a material for food cans or drink cans etc..
	ЯПОНИЯ в.з. № 60116773-А МПК C23C-014/32	Заявитель HITACHI CONDENSER KK з. № JP225785 пр-т 20 -11- 1983 опубл. 24- 06- 1985	197.	POLYMER ION PLATING APPTS. - FOR COATING E.G. FERROMAGNETIC MATERIAL WITH POLYMER E.G. POLYESTER Appts. is claimed to ion-plate a high polymer material such as polyester on a surface of workpieces such as ferromagnetic metal thin layer formed on a plastic resin film to produce a magnetic recording medium such as magnetic recording tape. To form a thin film having specified and uniform thickness, a high polymer sheet 7 is contacted with a hf coil assembly in a vacuum chamber contg. reels to run the high polymer material over the sheet, which may be made of PTFE polyacetal, etc. and is evaporated by heating until depositing on the workpiece surface.
	ЯПОНИЯ в.з. № 60248703-А МПК C08F-002/52; C08F-014/18; C23C-016/50	Заявитель MATSUSHITA ELEC IND CO LTD з. № JP102914 пр-т 22 -05 -1984 опубл. 09 -12- 1985	198.	PLASMA CVD DEVICE FOR FORMING PROTECTIVE SURFACE COATING - HAS PLASMA GENERATING TUBE INSERTED IN VACUUM CHAMBER. In a plasma CVD device to be used for providing surface protective coating onto a sheet-shaped base material such as magnetic recording medium, etc., the device has a plasma generating tube (23) inserted in a vacuum chamber (21). On the outside surface (24) of the part of the plasma generating tube (23) in the atmos., an induction coil (27) is wound, which is connected to a hf power source (25). On the outside surface of the part of the plasma generating tube in the vacuum chamber, there are provided at least one gas inlet port (29) and a plasma jetting port (32) at the end. A cylindrical can (33) is arranged near the plasma jetting port (32) in the vacuum chamber. On the surface of a sheet (35) moving along the peripheral surface of the cylindrical can (33), a coating is made through the chemical vapour phase growth of the introduced gas. As the reactive gas introduced, an organic monomer gas such as C ₄ F ₈ is used. By the polymerisation of a Teflon-based organic polymer film on the surface of magnetic sheet, a protective coating having high running property under circumstances such as high temp. and high humidity, ordinary temp. and low humidity, etc. can be formed.
п о р о ш о к	ЯПОНИЯ а.з. № 90004642-В МПК B22F-001/00; C23C-014/12; C23C-016/00	Заявитель JAPAN SYNTHETIC RUBBER CO LTD JAPAN SYNTHETIC RUBBER CO LTD з. № JP017577 пр-т 08- 02 -1982 опубл. 30 -01 -1990	199.	APPTS. TO TREAT SURFACE OF VERY FINE POWDER - BY ROLLING RAW POWDER IN PLASMA ATMOS. Реферат недоступен
	Япония	Заявитель	200.	PROTECTIVE FILM PREPN. FOR METAL OR SEMICONDUCTOR FILM - by ion bombardment

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	з.№ JP90001222-B МПК C23C-014/12; C23C-015/00; G11B-005/72; H01L-021/31	MATSUSHITA ELEC IND CO LTD з. № JP004803 пр-т 13- 01 -1981 опубл. 10- 01- 1990		vaporisation of polymer contg. imide bond to coat substrate surface Formation of a protective film for active surfaces of metal or a semiconductor film comprises vaporising a polymer target contg. the imide bond of formula (I) by bombardment with inert gas ions to coat surface of a substrate to be protected. The inert gas ions are bombarded through high frequency sputtering partic. of magnetron type with the temp. of the substrate surface at 20-180 deg.C. A ferromagnetic metal film of Fe, Co, Ni or an alloy material can be coated with a protective film of thickness 50-1000 Angstroms at a rate 1-50 Angstroms sec directly or indirectly through a non-magnetic layer of Al, Cr etc. The metal film has improved corrosion resistance and abrasive resistance to magnetic head.
	ЯПОНИЯ а.з. № 89041700-B МПК G11B-005/72; H01L-021/31	Заявитель FUJI PHOTO FILM CO LTD з. № JP021651 пр-т 16- 02 -1981 опубл. 07- 09- 1989 Аналоги US4543275-A DE3205384-A	201.	CONTINUOUS VACUUM VAPOUR DEPOSITION OF THIN ORGANIC FILMS - esp. where magnetic recording tape coated with ferromagnetic metal film is covered with protective polymer film. A substrate(a) is coated with an organic substance to be evaporated, and is fed over a heater located in a vacuum vapour deposition(VVD) chamber, so the organic substance evaporates. A second substrate(b) to be coated is fed through the chamber above substrate(a) so it receives the organic vapour, which forms a thin film on substrate(b). The chamber pref. has a vacuum of 10 power minus 2 to 10 power minus 6 torr; and the two substrates(a,b) may travel in the same or different directions through the chamber. Substrate(b) pref. already has a thin metal coating obtd. by VVD. Stable and continuous deposition of organic films, e.g. polymers, by using freshly evaporated organic material.EA (US4543275-A) Organic thin film is produced by continuously
	Япония з. № JP57083527-A МПК B05D-001/00; C08G-073/02	Заявитель NIPPON TELEGRAPH & TELEPHONE CORP з. № JP158218 пр-т 12- 11 -1980 опубл. 25 -05- 1982	202.	FLEXIBLE HIGH MOL. SEMICONDUCTOR FILM PRODN. - by vacuum evaporating organic salt of oxidant onto heated base material and heat-decomposing the salt Process comprises vacuum-evaporating (1) organic salt of oxidant on (2) heated base material and heat-decomposing (1) on (2), or heat- decomposing (1) in a heating boat and vacuum-evaporating the decompsn. prod. of (1) on (2) and thereby forming high mol. semiconductor film directly on (2). High mol. semiconductor film is produced by heat- decomposing (1) under vacuum and coupling-polymerising the active radical formed on base material or vacuum-evaporating (1) on (2) heated and simultaneously coupling-polymerising the active radical formed by heat decompsn. on (2). Extremely flexible semiconductor material is produced. In an example, aniline chlorate was charged in a heating boat and decomposed at 300-400 deg.C under 10 power(-5) mmHg and thereby 1 micron thick polyaniline film was formed on slide glass. The film showed electric conductivity at room temp. of 10 power(-12) to 10 power(-8) mho/cm
	ЯПОНИЯ в.з.№ 53088676-A МПК C23C-011/00; C23C-013/08; C23C-015/00	Заявитель NICHIDEN VARIAN KK з. № JP003757 пр-т 14-01- 1977 опубл. 04 -08 -1978	203.	FORMING A THIN FILM E.G. OF METAL OR PLASTIC ON THE INNER SURFACE OF A - such as a solar energy collector, or high pressure vessel by glow discharge sputtering A device is claimed for forming a thin film on an inner surface of a tubular vessel such as high-pressure gas bomb, bottle or solar energy collector. A source material such as metals, ceramics, and high- molecular polymers is sputtered by a glow discharge to coat the film. The object is to provide a uniform film deposited over the inner surface. The device comprises a vacuum chamber, a rod electrode extending in the chamber, means for feeding a specified gas into the chamber up to specified pressure, and power source for applying a

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				d-c or high-frequency voltage to the electrode. The velocity is that the electrode has one or more gas blow holes at the top end or side face.
	ЯПОНИЯ в.з. № 52099814-А МПК B05D-001/36; C23F-017/00; G03C-001/00; G03G-005/08	Заявитель FUJI PHOTO FILM CO LTD з. № JP016036 пр-т 16 -02 -1976 опубл. 22- 08- 1977 Аналоги DE2706392-А ; FR2340995-А ; GB1570357-А ; CA1096711-А ; US4268541-А	204.	SUPPORT FOR COPYING MATERIALS - prepd. by vacuum deposition of a metal cpd. and followed by vacuum deposition of an organic cpd. A layer of metal (cpd), metal alloy, different metals or a metal and a metal cpd. is vapour deposited onto a substrate (I) and an organic cpd. is vapour deposited onto the metallic layer. (I) is a polymer having Tg 0 degree C, paper or a combination of these two. The organic layer protects the metallic layer from scratching and pinhole formation. The process is economical and the prod. may be used for reproduction materials. Suitably, the metal layer is vacuum deposited at a pressure of 10 ⁻³ -10 ⁻⁶ Torr and the organic layer is vacuum deposited at a pressure of 10 ⁻¹ -10 ⁻⁴ Torr in a thickness of 30nm-3 mu pref. 100nm-3 mu in a chamber having a division to keep the vapours separate. The organic material to be deposited may be homo- and copolymers of (meth)acrylic acid, polyacrylates, cpds. contg. carboxy gps. e.g. (tere)phthalic acid, phthalocyanines, mono- and oligosaccharicides, abietic acid, or natural Bi resins. The metallic layer may be Al, Sb, Be, etc. (I) is esp. a PET film.
	ЯПОНИЯ в.з. № 53012346-А МПК C09K-003/34; G02F-001/13; G09F-009/00	Заявитель ASAHI GLASS CO LTD з. № JP085659 пр-т 20- 07- 1976 опубл. 03- 02 -1978	205.	LIQ. CRYSTAL DISPLAY DEVICE ELECTRODE PLATE - COATED WITH A UNIFORM, DURABLE POLYMER LAYER A method of treating the surface of electrode plate of liquid crystal display device comprises placing base plate having electrode formed on the surface in a reactive gas under reduced pressure, forming layer of polymer of the reactive gas on the surface of the base plate by electric discharge in the reactive gas by AC electric field, and forming microgroup of a given direction on the surface of the base plate with the polymer layer. As the operation can be performed under 0.01-10 mmHg the evacuation system can be simplified, lowering the cost and reducing the treating time. Uniform and durable surface most suitable for liquid crystal display device can be obtd. Reactive gas is e.g. cpd. of formula R _m SiX _{4-m} (m is 1 or 2, R is alkyl, aryl, allyl, vinyl group or these groups substd. with amino, gp. and X is H, CH ₃ , C ₂ H ₅ , OCH ₃ , OC ₂ H ₅ or halogen) or R _n 'Y (R' is alkyl, vinyl or allyl group and Y is aryl, thio or amino group). The microgroup is formed by grinding or vacuum evapn.
п	ЯПОНИЯ а.з. № 82015166-В МПК C09K-003/34; G02F-001/13; G09F-009/00	Заявитель ОИКЕ КОГЬО КК; ОИКЕ IND LTD з. № JP141769 пр-т 26- 11 -1975 опубл. 29- 03 -1982	206.	METAL, ALLOY OR COMPOUND POWDER PRODN. - BY VACUUM DEPOSITION OF FILM ON PTFE-SUPPORTED ALUMINIUM, STRIPPING THE FILM AND CRUSHING Prodn. of metal powder of Au, Ag, Cu, Pt, Pd, Ni, Ru or Cr, alloy powder of these metals, or metal cpd. powder of Ru-oxide or Zr boride. Method comprises forming an Al form on a base film of i.e. PTFE by vacuum evaporation; forming another film of the element, alloy or cpd. on the Al film; peeling off the second evaporated film at the interface with the Al film layer to get foil pieces; and pulverising the foil pieces. The powder, produced by the dry method, is flat, and of dia. <0.1 mu m.
	ЯПОНИЯ а.з. № 79044224-В	Заявитель DAINIPPON PRINTING CO	207.	ELECTRODE PLATE FOR A PHOTOELECTRIC DEVICE - IS COATED WITH A FLUORINE POLYMER TO IMPROVE HEAT RESISTANCE AND DURABILITY

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	МПК C09K-003/34; G02F-001/13; G09F-009/00	LTD з. № JP103595 пр-т 09- 09 -1974 опубл. 25-12- 1979		The surface of a transparent electrode disposed on a substrate is coated with a resin film of fluoride polymer by vacuum deposition. The electrode plate is suitable for use in a liq. crystal display.
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