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	США з. № US2006008627-A1 МПК B32B-031/12; B32B-015/08	Заявитель HEWLETT-PACKARD DEV CO LP з. № US888450 пр-т 09 Июль 2004 опубл 12 Январь 2006	1.	PLATING OF SUBSTRATE FOR MICROELECTRONIC DEVICE, E.G. MICROPROCESSOR, INVOLVES COATING SURFACE OF NON-PLATEABLE SUBSTRATE, LASER TREATING REGION OF COATED SURFACE AND PLATING LASER-TREATED REGION EXCLUSIVELY. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) a system comprising a microelectronic device having a substrate with a surface (15), a plating enhancing layer (20) supported by the surface of the substrate and having a roughened region, and a plating layer supported in the roughened region; and (2) a microelectronic device comprising a substrate with a surface, a plating enhancing layer applied to the surface of the substrate and having a laser-roughened region, a seed layer supported by the laser-roughened region, and a plating layer supported by the seed layer. The plating enhancing layer includes a non-wetting layer from fluoropolymer, polyparaxylylene, Parylene, Teflon (RTM; polytetrafluoroethylene) or a non-wetting polymer.
	США п. № 6540866-B1; МПК B32B-031/12; B32B-015/08	Заявитель INST MICROELECTRONICS UNIV SINGAPORE NAT з. № US604959 дата подачи 28 Июнь 2000 Опубл. 01 Апрель 2003 Приоритетные данные SG003216 29 Июнь 1999 Аналоги SG93210-A1	2.	LAMINATION OF FLUOROPOLYMERS TO METAL AND/OR TO PRINTED CIRCUIT BOARD SUBSTRATE SURFACES, COMPRISES PRETREATING FLUOROPOLYMER WITH PLASMA, THERMAL GRAFT CO-POLYMERIZING FUNCTIONAL MONOMER(S), AND APPLYING ADHESIVE(S). Fluoropolymers are laminated to metal and/or to printed circuit board substrate surfaces by pretreating fluoropolymer with plasma, thermal graft co-polymerizing functional monomer(s) to obtain grafted fluoropolymer, and applying adhesive(s) at lapped interface between metal and/or printed circuit board substrate and the grafted fluoropolymer and curing adhesive(s). ADVANTAGE - The invention improves adhesion and affect the lamination process.
	США з. № 2006014097-A1 МПК G03G-005/043; G03G-005/047	Заявитель XEROX CORP з. № 890249 пр-т 14.07.2004 опубл. 19 января 2006	3.	FORMING DISPERSION FOR COATING CHARGE TRANSPORT LAYER INVOLVES MIXING SLURRY OF POLYTETRAFLUOROETHYLENE PARTICLES, SURFACTANT AND SOLVENT WITH BASE COMPOSITION COMPRISING POLYCARBONATE POLYMERIC BINDER, CHARGE TRANSPORT MATERIAL AND SOLVENT. Forming a stable charge transport layer dispersion involves combining polytetrafluoroethylene (PTFE) particles, at least one surfactant and at least one solvent to form a slurry; combining at least one polycarbonate polymeric binder, at least one charge transport material and at least one solvent to form a base composition; and mixing the slurry and base composition to form the dispersion where the PTFE particles are uniformly dispersed. USE - For forming a stable charge transport layer dispersion, which is coated on a surface of a photoreactor to form a charge transport layer (claimed). ADVANTAGE - The charge transport layer on the photoreactor or other imaging member e.g. photoreceptor has stable PTFE dispersion which increases the durability

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	<p>США в. з. № 2005288413 А1 МПК С08К-003/00</p>	<p>Заявитель ZHENG M WOOD K BRYANT L WOOD K A З. № 874783 Дата подачи 23 Июнь 2004 опубл. 29 Декабрь 2005</p>	4.	<p>FLUOROPOLYMER RESIN-BASED COATING COMPOSITION FOR USE AS STAIN RESISTANT COATING FOR E.G. ROOFING MATERIALS OR WALL MATERIALS, COMPRISES FLUOROPOLYMER(S), ORGANOSILICATE, AND WATER SCAVENGER(S).</p> <p>A fluoropolymer resin-based coating composition comprises greater than or equal to 30 wt.% fluoropolymer(s); 0.1-20 wt.% organosilicate; and 0.1-40 wt.% water scavenger(s). The water scavenger is molecular sieves, gypsum, zeolites, alumina, and/or synthetic clays. The composition is free of alcohol-based solvents.</p> <p>USE - For use as stain resistant coating for roofing materials, wall materials and other outdoor building materials.</p> <p>ADVANTAGE - The composition has extended pot life and capable of forming a coating having superior weatherability, and stain resistance. Articles coated with the inventive composition show superior dirt shedding and stain resistance without a negative effect on gloss.</p> <p>DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method for increasing the pot-life of an organosilicate-containing coating composition, comprising combining greater than or equal to 30 wt.% fluoropolymer, 0.1-20 wt.% organosilicate, and 0.1-40 wt.% water scavenger.</p>
	<p>США з. № 2005267260</p>	<p>Заявитель DU PONT DE NEMOURS & CO E I</p>	5.	<p>ABRASION RESISTANT FLUOROPOLYMER COMPOSITION FOR FILMS FORMED ON FUSER ROLL IN COPY MACHINES AND LASER PRINTERS,</p>

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	МПК C08F-008/30; C08K-007/02; C08L-027/12; C09D-127/12	FRANCES A MCKEEN L W HAYAKAWA O SERVICE A L M З. № US138972 Опубл. 26 Май 2005 Аналог WO2005118714-A1	США	COMPRISES FLUOROPOLYMER AND AN MICRO PULP. Abrasion resistant fluoropolymer composition comprises fluoropolymer and an micro pulp to increase the abrasion resistance. USE - For films formed on fuser roll (claimed) in copy machines and laser printers. ADVANTAGE - The invention increases abrasion resistant of film. It provides heat resistant polymer with release surface preventing the sticking of toner to fuser roll and allows more toner to affix to the receiver for production of high printed quality images. DETAILED DESCRIPTION - For use in vehicle trim components, bumper facia, body panel, wheel wells, underbody panels, interior trim components, deck lids, seat components, handles, cargo liners, instrument panels, engine
	США З. № 2005228152-A1 МПК C08F-016/24	Заявитель STARRY A B ZHENG H PUTS R D З. № US560683P Пр-т 08 Апрель 2004 Опубл. 06 Апрель 2005	6.	ANTI-REFLECTIVE COATING FOR REDUCING REFLECTIONS FROM SURFACE OF OPTICAL ARTICLES, E.G. DISPLAYS, OPTICAL LENSES, WINDOWS, OPTICAL POLARIZERS, TRANSPARENT FILMS OR GLOSSY PHOTOGRAPHS, COMPRISES AMORPHOUS FLUOROPOLYMER. An anti-reflective coating comprises amorphous fluoropolymer. USE - For reducing reflections from surface of optical articles, e.g. displays, optical lenses, windows, optical polarizers, transparent films, or glossy photographs. ADVANTAGE - The inventive coating has good adhesion properties, and is more durable. It does not depend on the use of coupling agents to enhance adhesion, which leads to a more stable fluoropolymer solution. It is a uniform, void-free layer, which is a simpler system.
	США П. № 6951559-B1 МПК B05D-005/08	Заявитель MEGADYNE MEDICAL PROD INC З. № US177351 Пр-т 21 Июнь 2002 Опубл. 04 Октябрь 2005	7.	ELECTROSURGICAL INSTRUMENT FOR CUTTING TISSUES, HAS COATING LAYER FORMED IN PORTION OF ELECTRODE TIP, BY USING HYBRID MATERIAL CONTAINING POLYMER OR ORGANIC MATERIAL AND MATERIAL SELECTED FROM CERAMIC, SILICON OR FLUOROPOLYMER. An electrode includes a tip for performing electrosurgical procedure. A coating layer (404) is formed in a portion of the electrode tip, by using a hybrid material containing polymer or organic material and any one of material such as ceramic, silicon and fluoropolymer. USE - For use in medical field for cutting tissue and/or cauterizing leaking blood vessels of patient. ADVANTAGE - Improves hardness, strength and flexibility and heat resistant property of the electrode tip, by forming the coating layer. Reduces amount of charred blood or tissue accumulated in the electrode tip, by using fluoropolymer to enhance non-stick property of the electrode tip.
	США З. № 2005191432-A1 МПК B05D-001/02; C09D-005/02;	Заявитель DU PONT DE NEMOURS & CO E I HOFMANS J З. № US039549 пр-т 19 Январь 2005	8.	AQUEOUS/OIL EMULSION TO FORM A COATING ON A SUBSTRATE E.G. METAL REQUIRED IN NONSTICK-COATED BAKEWARE (ЖАРОПРОЧНАЯ ПОСУДА) COMPRISES PARTICLES OF FLUOROPOLYMER. AN AQUEOUS/OIL EMULSION (A1) COMPRISES PARTICLES OF FLUOROPOLYMER.

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	C09D-127/12; B01F-003/08; B01F-003/12	опубл. 19 Январь 2005 Аналоги WO2005071022-A1	США	<p>USE - To form a coating on a substrate (claimed) such as metal and ceramics required in nonstick-coated bakeware.</p> <p>ADVANTAGE - The emulsion has high viscosity (at least 2000 centipoises), which keeps the fluoropolymer particles dispersed in the emulsion during storage and handling. The fluoropolymer has widespread approval for use in food contact applications. The emulsion is capable of forming a thick coating in a single pass without using temporary thickener additives that tend to decompose and vaporized during baking of the coating. The coating becomes crack-free coating after drying and baking.</p> <p>DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:</p> <p>(1) forming a release coating on a substrate involving spray coating the substrate with an aqueous medium of (A1); followed by drying and baking. Spraying is carried out in a single pass to obtain a crack-free thickness of at least 30 microns; and</p> <p>(2) forming (A1) having a viscosity of at least 2000 centipoises in a high shear blending process involving mixing a dispersion containing particles of fluoropolymer at a speed sufficient to cause an eddy formation; adding oil and emulsifying agent to the dispersion; increasing the speed of mixing.</p>
	США З. № 2005136200-A1 МПК B65D-001/00	Заявитель DURELL C N ВОНМЕ W З. № 742552 Пр-т 19 Декабрь 2003 Опубл. 23 Июнь 2005	9.	<p>DIFFUSE REFLECTIVE FILM FOR USE IN, E.G. LIGHT EMITTING DIODE DISPLAY HAS REFLECTIVE SPECULAR BOTTOM LAYER AND POLYTETRAFLUOROETHYLENE DIFFUSER TOP LAYER, AND HAS AN SPECIFIED THICKNESS.</p> <p>Diffuse reflective film (10) comprises a bottom layer of reflective specular material and a top layer of polytetrafluoroethylene (PTFE) diffuser material for diffusely reflecting greater than or equal to 96% of light within a portion of the electromagnetic spectrum between 400-2500 nm. The diffuse reflective film has a thickness of less than 1500 microns.</p> <p>USE - The diffuse reflective film is use in light conduit, light box, liquid crystal display (50), light emitting diode (52) display, optical cavity (54), or sign cabinet (claimed).</p> <p>ADVANTAGE - The inventive diffuse reflective film increases the light efficiency of the light conduit when used as extractors or back reflectors. It provides more uniform illumination.</p>
	США З. № 2005107518-A1 МПК C08J-003/00; C08F-006/16; C08F-014/26; C08F-214/26;	Заявитель 3M INNOVATIVE PROPERTIES CO з. № 962633 пр-т 12 Октябрь 2004 опубл. 19 Май 2005 Аналоги EP1533325-A1	10.	<p>AQUEOUS NON-MELT PROCESSABLE POLYTETRAFLUOROETHYLENE DISPERSION FOR FORMING COATING COMPOSITION FOR, E.G. METAL SUBSTRATE COMPRISES SPECIFIED AMOUNT OF NON-MELT PROCESSABLE POLYTETRAFLUOROETHYLENE PARTICLES AND NON-IONIC SURFACTANT.</p> <p>NOVELTY - An aqueous non-melt processable polytetrafluoroethylene dispersion comprises 30-70 wt.% non-melt processable polytetrafluoroethylene particles and 2-15</p>

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	C09D-127/18	WO2005052013-A1		<p>wt.% non-ionic surfactant based on the weight of polytetrafluoroethylene solids. The dispersion is free of fluorinated surfactant or contains fluorinated surfactant at not more than 200 ppm based on the amount of polytetrafluoroethylene solids.</p> <p>USE - Used as non-melt processable polytetrafluoroethylene for forming coating composition for coating metal substrates or fabric (claimed), e.g. cookware or glass fiber based fabrics.</p> <p>ADVANTAGE - The non-melt processable polytetrafluoroethylene has melt viscosity that is so high that conventional melt processing equipment cannot be used to process the polytetrafluoroethylene, preferably has a melt viscosity of greater than 1010 Pa.s. The aqueous dispersions is more environmentally friendly because of a low amount of fluorinated surfactant combined with less problems of coagulation during preparation and/or application of a final coating composition in which the dispersions are combined with further components and in particular organic solvents. The dispersions may be conveniently and cost effectively produced.</p>
	СИА 3. № 2005090601-A1 МПК C08J-003/00; C08F-214/00; C08F-002/24; C08F-214/26; C09D-127/18	Заявитель 3M INNOVATIVE PROPERTIES CO 3. № US957898 Дата подачи 04 Октябрь 2004 Приоритетные данные Пр-т EP1529785-A1, 24 Октябрь 2003 Опубл. 28 Апрель 2005 Аналоги WO2005040239-A2;	11.	<p>POLYTETRAFLUOROETHYLENE DISPERSION COMPOSITION FOR USE AS COATING COMPOSITION USED IN COATING SUBSTRATE, E.G. COOKWARE, CONTAINS POLYTETRAFLUOROETHYLENE POLYMER CHAINS WITH REPEATING UNITS OF IONIC GROUPS.</p> <p>A polytetrafluoroethylene particles dispersion composition comprises aqueous non-melt processible polytetrafluoroethylene particles (30-70 wt.% based on the total weight of the dispersion), and non-ionic surfactant(s). The part(s) of the non-melt processible polytetrafluoroethylene particles comprises polytetrafluoroethylene polymer chains containing repeating units of ionic groups.</p> <p>USE - For use as coating composition used in coating substrate, e.g. cookware.</p> <p>ADVANTAGE - The invention provides good mechanical and physical properties of polytetrafluoroethylene. It is easy and convenient and is cost effect. It is also environmental friendly.</p> <p>EXAMPLE - Tetrafluoroethylene (90 wt.%) was added with azodicarboxyl diamide and solution of sodium silicon dioxide (0.6g) in water (50g). A solution containing ammonium persulfate (APS) (0.8g), copper silicon dioxide penta hydrate (20 mg), and 25% aqueous ammonia solution in 150 ml water (60g). Emulsion of MV4S in ammonium perfluoro octanoate solution (340g) was injected in the polymerization vessel. The dispersion was added with Triton X-100 (2 wt.%) and ammonia/dispersion (5 millimoles). The dispersion had shear stability of greater than 30 min.</p>
	СИА 3. № 2005107506-A1 МПК F16J-007/00	Заявитель SOLVAY SOLEXIS SPA 3. № US968048 Дата подачи 20 Октябрь 2004 Пр-т ITMI2050 21 Октябрь 2003	12.	<p>PREPARATION OF PUMPABLE FLUOROPOLYMER DISPERSION FOR COATING, INVOLVES ADDING NON-IONIC SURFACTANT, ELECTROLYTE AND BUFFER AGENT TO FLUOROPOLYMER DISPERSION, HEATING, SEPARATING PHASE HAVING FLUOROPOLYMER, AND REPEATING PROCESSES</p>

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		<p>Опубл. 19 Май 2005 Аналоги EP1526142-A1 JP2005126715-A</p>		<p>A non-ionic surfactant having cloud point (CP) of 40-80degreesC, optionally electrolyte and buffer agent are added in fluoropolymer dispersion, and heated. Decantation is performed, to obtain lower phase having concentrated fluoropolymer. The lower phase is discharged. The discharged dispersion is subjected to addition, heating and separation processes repeatedly, to obtain pumpable fluoropolymer dispersion free of surfactant.</p> <p>USE - For preparing pumpable fluoropolymer dispersion for coating of metals and ceramics, glass fiber impregnation, cast film production and additive of polymer and inorganic materials.</p> <p>ADVANTAGE - The fluoropolymer dispersion with good stability to shear, excellent pumpability and free of fluorinated anionic surfactant, is obtained.</p>
	<p>США 3. № 2005084742-A1 МПК C08F-214/26; C09D-127/18</p>	<p>Заявитель GENERAL MOTORS CORP ANGELOPOULOS A P J I C MATTHIAS M F 3. № US924317 Пр-т 23 Август 2004 Опубл. 21 Апрель 2005 Аналоги WO2005041331-A1</p>	13.	<p>PREPARATION OF FLUOROPOLYMER COATED CARBON FIBER BASED SUBSTRATE FOR FUEL CELL, COMPRISES APPLYING POLYMER COMPOSITION COMPRISING FLUOROCARBON POLYMER AND SOLVENT TO SURFACE OF SUBSTRATE.</p> <p>A fluoropolymer coated carbon fiber based substrate is prepared applying polymer composition comprising fluorocarbon polymer and solvent to surface of substrate; and removing the solvent from the substrate, leaving a deposited film on the carbon fiber substrate.</p> <p>USE - Used in the preparation of fluoropolymer coated carbon fiber based substrate for PEM fuel cell, and for a sheet material (claimed).</p> <p>ADVANTAGE - The invention provides fuel cell having improved consistent performance.</p> <p>DETAILED DESCRIPTION - The preparation of fluoropolymer coated carbon fiber based substrate involves prepared applying polymer composition comprising fluorocarbon polymer and solvent to surface of substrate; and removing the solvent from the substrate, leaving a deposited film on the carbon fiber substrate. The rate of removal of the solvent is slower than would be achieved by heating the coated substrate at a temperature above the boiling point of the solvent. The carbon/fluorine (C/F) ratio of the coated substrate is greater than or equal to 8.</p>
	<p>США 3. № 2005070633 МПК C08L-001/00</p>	<p>Заявитель 3M INNOVATIVE PROPERTIES CO 3. № US429387 Пр-т 05 Май 2003 Опубл. 31 Март 2005</p>	14.	<p>COMPOSITION COMPRISES AQUEOUS FLUOROPOLYMER DISPERSION OBTAINED BY MIXING DISPERSION WITH SURFACTANT TO STABILIZE DISPERSION, CONTACTING DISPERSION WITH ANION EXCHANGE RESIN FOR SPECIFIC TIME AND SEPARATING RESIN FROM DISPERSION.</p> <p>A composition comprises an aqueous fluoropolymer dispersion obtained by mixing the dispersion with effective amount of surfactant to stabilize the dispersion during contact with resin. The dispersion is contacted with anion exchange resin by agitating the dispersion with the resin for less than 4 hours. The resin is separated from the</p>

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				dispersion. USE - For coating substrate. ADVANTAGE - The composition has reduced amount of fluorinated emulsifier, and is obtained economically. The change of one type of dispersion to another type of dispersion is performed quickly, without contamination. The anion exchange resin is discharged easily and quickly.
	СИИ З. № 2004253387-A1 МПК B29B-009/06; C09D-127/12; C09D-127/18; B05D-001/12	Заявитель AKZO NOBEL COATINGS INT BV З. № US860957 Пр-т 04 Июнь 2004 Опубл. 16 Декабрь 2004 Аналоги WO2004108842-A1	15.	COATING SUBSTRATE INVOLVES SUBJECTING EXTRUDATE OF FLUOROPOLYMER AND THERMOPLASTIC POLYMER TO MECHANICAL DEVICE TO OBTAIN POWDER; AND HEATING SUBSTRATE APPLIED WITH THE POWDER TO FLUIDIZE THE POWDER TO COAT THE SUBSTRATE. NOVELTY - Coating a substrate involves a) preparing a solid mixture containing at least one fluoropolymer and at least one thermoplastic polymer thermally stable at 400degreesC; b) melt blending and extruding the mixture at 250 - 400degreesC to achieve homogeneity; c) subjecting the extrudate to mechanical device to obtain a powder having a particle size of less than or equal to 100 microns; d) applying the powder onto the substrate; and e) heating the substrate to fluidize the powder to coat the substrate. USE - For coating a substrate with a coating (claimed). ADVANTAGE - The method provides a coated substrate having improved long term release characteristics due to the presence of high levels of fluoropolymers at the surface of the baked powder coating.
	СИИ З. № 2004226506-A1 МПК B05C-013/00; B05C-013/02	Заявитель LYNN D M З. № US438552 Пр-т 14 Май 2003 Опубл. 18 Ноябрь 2004	16.	WAFER-PROCESSING COMPONENT, E.G. WAFER CARRIER OR TANK, COMPRISES QUARTZ SUBSTRATE AND FLUOROPOLYMER COATING A wafer-processing component comprises a quartz substrate, and a fluoropolymer coating on the substrate. USE - For processing semiconductor wafers. ADVANTAGE - The inventive wafer-processing component can tolerate hot and acidic environments while maintaining rigidity and without shedding of particulates.
	СИИ п. № 6861466-B2 МПК C08L-027/12; C08L-027/18; C09D-127/12; C09D-127/18; C08J-003/00; C08K-005/06	Заявитель 3M INNOVATIVE PROPERTIES CO З. № US761086 Дата подачи 20 Январь 2004 Опубл. 01 Март 2005 Аналоги EP1452571-A1 WO2004078836-A1 DE60301322-E Приоритетные данные	17.	FLUOROPOLYMER DISPERSION FOR COATING SUBSTRATE, COMPRISES NON-IONIC NON-FLUORINATED SURFACTANT OR ITS MIXTURE WITH NON-FLUORINATED ANIONIC SURFACTANT(S), IN AMOUNT AND NATURE TO OBTAIN SPECIFIC VISCOSITY TRANSITION TEMPERATURE OF DISPERSION NOVELTY - Fluoropolymer dispersion comprises a non-ionic non-fluorinated surfactant or mixture of non-ionic non-fluorinated surfactants and non-fluorinated anionic surfactant(s), in an amount and nature such that the viscosity transition temperature of the fluoropolymer dispersion is at least 26degreesC, where fluoropolymer dispersion is free of aromatic group containing non-ionic surfactants.

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		DE601322 пр-т 28 Февраль 2003		USE - The invention is used in coating or impregnation of a substrate comprising metal substrates, glass fiber fabrics, polymeric substrates, paper, and kitchenware (claimed). ADVANTAGE - The invention has good coating properties and good film forming properties comparable or better, as dispersions that contain the low molecular weight fluorinated surfactant in large amounts. It is free of aromatic group containing non-ionic surfactants and is more environmentally friendly, and yields coatings that are less susceptible of discoloration.
	США З. № 2005074555-A1 МПК B05D-003/02; B05C-005/00; B05C-005/02; B05D-007/24; G03C-001/74	Заявитель KONICA MINOLTA MEDICAL & GRAPHIC INC KONICA MINOLTA MG KK З. № US955464 Дата подачи 30 Сентябрь 2004 Опубл. 07 Апрель 2005 Приоритетные данные JP2005131635-A пр-т 07 Октябрь 2003	18.	PRODUCTION OF DIE COATER STRUCTURED WITH BARS COMPRISES COVERING PART OF SURFACE OF BAR COMING IN CONTACT WITH COATING LIQUID WITH FLUORINE-BASED RESIN, AND BAKING FLUORINE-BASED RESIN COVERING PART OF SURFACE OF BAR NOVELTY - Die coater (1) structured with greater than or equal to 2 bars is produced by covering a part of a surface of a bar coming in contact with a coating liquid with a fluorine-based resin; and baking the fluorine-based resin covering the part of the surface of the bar at a temperature of 100-380degreesC. USE - For producing a die coater structured with greater than or equal to 2 bars for use in a coating apparatus.
	США П. №6712919 МПК B 32 B 31/14	Заявитель Ruefer Bruce G., Marlow Leonard G. (Jr), Ruefer Rebecca U., Sharber N. Joe. З. № 09/918845 Пр-т 31.07.2001 Опубл. 30.03.2004	19.	Способ изготовления изделия из вспененных ПТФЭ состоит из стадий: экструдирование первого ПТФЭ для формования первого экструдата и второго ПТФЭ для формования второго экструдата, а первый ПТФЭ является более вспененным, чем второй ПТФЭ; формование пакета из <u>i</u> 1 слоя первого ПТФЭ и <u>i</u> 1 слоя второго ПТФЭ; создание во втором материале агрегатов узлов из взаимосвязанных коротких фибрилл длиной 10-30 мкм и агрегатов взаимосвязанных длинными фибриллами длиной 100-1000 мкм, радиально расположенных в слое, и далее спекание вспененного изделия.
	США П. №6734227 МПК C 08 K 9/04	Заявитель 3M Innovative Properties Co., Jing Naiyong, Dyke Tiers George Van, Pellerite Mark J З. № 09/961669 Пр-т 24.09.2001 Опубл. 11.05.2004	20.	Оптические элементы, улучшаемые обработкой поверхности фторполимерами. Optical elements comprising a fluoropolymer surface treatment Оптические элементы улучшают обработкой их ПВ фторполимерами, содержащими в основной цепи фторуглеродороды и в боковой цепи фторалкильные, фторалкоксиалкильные, фторалкоксирадикалы. Элементы используют при изготовлении отражающих пластин и оптич. экранов.
	США З.№ <u>6734236</u>	Заявитель <u>Daikin Ind., Ltd, Tomihashi Mobuyuki,</u>	21.	<u>Фторполимерные порошковые окрасочные системы. Fluorine-containing resin powder coating composition</u>

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	МПК С 08 К 5/34	<u>Ogita Koichiro, Miyatani Toshio</u> З. № 09/937705 Дата подачи 23.03.2000 Опубл. 11.05.2004 Аналоги		<u>Порошковые окрасочные системы с температурой отверждения 300 ° содержат (ч.) на 100 мелкодисперсного фторполимера [СПЛ тетрафторэтилена, перфторалкилвинилового эфира и(или) гексафторпропилена 1 0,5-10 модифиц. рутильного TiO₂] и 0,3-3 термостабилизатора с температурой плавления 170 °С из группы органосульфидных, аминокосоединений и металлич. порошков (Co, Fe, Zn, Sn, Cu). Такие системы образуют защитные покрытия с индексом белизны 160 после отверждения при температуре 1300 ° и могут быть использованы для нанесения на изделия медицинского назначения или кухонную утварь.</u>
	США З.№ 6767942 МПК С 08 К 5/15	Заявитель Xerox Corp., Gervasi David J., Badesha Santokh S., Bingham George J З. № 10/199619 Дата подачи 18.07.2002 Опубл. 27.07.2004	22.	Композиции на основе смеси металлоорганического соединения, фторированного растворителя и фторированного солюбилизатора и покрытия с полупроводниковыми свойствами на их основе. Coatings having fully fluorinated co-solubilizer, metal material and fluorinated solvent Композиции содержат 5-35% комплексного соединения соответствующего металла (гексафторпентадионат Cu(2), метакрилоксиэтилацетоацетонат Cu(2), этоксид Sb, гексафторпентадионат Zn), фторированный растворитель (фторорг. соединения) и 0,1-40% солюбилизатора из группы перфторированных полисилоксанов, ПУ, ПС, а СПЛ тетрафторэтилена и др. перфторполимеров
	США П.№ 6761964 МПК В 32 В 27/06	Заявитель E. I. du Pont de Nemours and Co, Tannenbaum Harvey P З. № 10/108967 Дата подачи 27.03.2002 Опубл. 13.07.2004	23.	Системы для нанесения противопригарных покрытий на кухонную утварь. Fluoropolymer non-stick coatings Системы содержат композиции (КМ) для нанесения грунтовочного, промежуточного и наружного слоев. Грунтовочная КМ содержит фторполимер, пленкообразующий полимер и 5-20% керамич. наполнителя с размером частиц больше толщины слоя грунтовки. Промежуточная КМ содержит фторполимер и 18% неорганич. наполнителя с размером частиц 1/2 толщины промежуточного слоя. Отделочная КМ содержит фторполимер
	США П.№ 6743842 МПК С 08 К 5/24	Заявитель Daiking Industries, Ltd., Fukagawa Ryoichi, Tsuda Nobuhiko, Nagato Masaru, Nagai Go. З. № 09/868071 Дата подачи 13.12.1999 Опубл. 01.06.2004	24.	Фторполимерные порошковые окрасочные системы. Fluorine-containing resin powder coating composition Порошковые окрасочные системы содержат (ч.) на 1000 мелкодисперсного фторполимера 1-40 гидролизата три- или тетраалкоксисилана. Такие системы образуют антистатич. покрытия с улучшенными твердостью и грязезащитными свойствами.
	США П. № 6797746 МПК С 09 D 11/10	Заявитель Vidriera Monterrey, S. A. de C. V., Cavazos-Gutierrez Rodrigo З. № 09/925559 Дата подачи 09.08.2001	25.	Печатные краски УФ-отверждения для отделки изделий из стекла. Ultraviolet radiation curable ink composition and a process for its application on glass substrates Печатные краски УФ-отверждения содержат 80-95% эпоксицированного ПУ, 0,5-8,0% ПО-воска или ПТФЭ-воска, триметоксисилановый промотор адгезии и 1-8% блокированного алифатич. полиизоцианата с т. активации 160-200 °.

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	США П. № 6794027 МПК В 32 В 27/08	Заявитель Daikin Ind., Ltd, Araki Takayuki, Tanaka Yoshito, Kumegawa Masahiro. З. № 09/763412 Дата подачи 20.08.1999 Опубл. 21.09.2004	26.	Фторполимеры с улучшенными адгезионными свойствами и тонкослойные покрытия на их основе. Thin coating film comprising fluorine-containing polymer fna method of forming same Окрасочные системы содержат в качестве пленкообразующего компонента СПЛ 50-99,95 мол.% фторолефина и 0,05-50 мол.% винилового сомономера с полярными функциональными группами (гидроксильные, карбоксильные, сульфокислотные, их соли и т. п.). Такие системы образуют покрытия толщ. до 0,5 мкм с хорошей адгезией к различным подложкам (металлы, стекло, пластмассы).
	США П. № 6767626 МПК В 32 В 27/08	Заявитель E. I. du Pont de Nomours and Co., Tuminello William Howard, Wheland Robert Clayton. З. № 10/258250 Дата подачи 15.05.2001 Опубл. 27.08.2004	27.	Защита камней частично аморфными фторполимерами. Method for protection of stone with substantially amorphous fluoropolymers Частично аморфные фторполимеры, используемые для обработки камней с целью защиты их от атмосферного воздействия (вода и загрязнения), содержат (мольные %) 30-50 звеньев формулы -CF[2]CF(CF[3])- , 25-50 формулы -CF[2]CF[2]- и 10-25 -CF[2]CFX-, и -CH[2]CF[2]-, где X-H или перфторалкил C[1-20], R-H, алкил, алкоксигруппы, перфторалкил, F.
	США П. № 6329042 МПК В 32 В 27/00	Заявитель Sumitomo Electric. Ind., Ltd, Yamada Katsuya, Matsushita Nobutaka, Kashiwara Hideki, Ohwaki Shigeyoshi, Kashiwagi Tohru, Nakabayashi Makoto, Miyamoto Masahiro З. № 09/275001 Дата подачи 24.03.1999 Опубл. 11.12.2001 Приоритет 23.10.1991, N 3-315615 (Япония)	28.	Жидкофазные фторполимерные композиции и противопожарные покрытия на их основе. Fluororesin coating composition and coated article obtained using the same Жидкофазные композиции (КМ) содержат дисперсию фторполимера в жидкофазном носителе и 60% неионного ПАВ. Такие КМ используют для нанесения фторполимерных противопожарных покрытий на пищевую кухонную утварь.
	США П. № 6361865 МПК В 32 В 27/36	Заявитель Daikin Ind., Ltd, Tsuda Nobuhiko, Iwakiri Ryuji, Nagato Masaru, Imoto Katsuhiko З. № 09/423046 Дата подачи 23.04.1998 Опубл. 26.03.2002	29.	Водные фторполимерные дисперсии для нанесения защитных покрытий на полимерные подложки. Method for surface-coating synthetic resins Водные полимерные дисперсии получают водоземulsionной полимеризацией эпоксиненасыщ. мономеров в присутствии зародышеобразующих частиц поливинилиденфторида. Такие дисперсии используют для хим. и атмосферной защиты полимерных подложек (поликарбонат).
	США П. № 6319600	Заявитель Seagate Technology LLC, Stirniman	30.	Магнитные носители информации с лицевым самосмазываемым фторполимерным покрытием. Fluoropolyether topcoat lubricants

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	МПК В 01 D 3/00	Michael Joseph, Falcone Samuel John. З. № 09/082967 Дата подачи 22.05.1998 Опубл. 20.11.2001		Магнитные носители информации содержат самосмазываемый лицевой слой толщиной <1 нм из инертного простого фторполиэфира с молекулярной массой ≤ 6000 дальтон, концевыми нереакционноспособными группами (алкильные, галогеналкильные, алкоксильные, галогеналкоксильные, ароматические и галогенароматические) и отсутствием низкомолекулярной фракции с т. кип. $< 150^\circ$ при давлении $1 \cdot 10^{-2}$ мм. рт. столба.
	США П. № 6395346 МПК В 05 D 1/06	Заявитель Nylok Fastener Corp., Duffy Richard J., Sessa Eugene D З. № 09/686010 Дата подачи 10.10.2000 Опубл. 28.05.2002	31.	Способ электростатического нанесения фторполимерных покрытий на резьбовую часть крепежных элементов. Process for application of a fluoropolymer coating to a threaded fastener Установки для электростатического нанесения фторполимерных порошков имеют трибоэлектрический способ зарядки и обеспечивают формирование на полимерных частицах заряда величиной $(1-30000) \cdot 10^{-7}$ Ку/кг.
	США П. № 6362135 МПК С 10 M 125/00	Заявитель Platinum Research Organization, L.L.C., Greer Conrad F З. № 09/648360 Дата подачи 25.08.2000 Опубл. 26.03.2002	32.	Способ нанесения противообледенительных покрытий. Catalyzed compositions and methods for use in vehicle surface anti-icing and other applications Композиция (КМ) содержат жидкофазный носитель (моторное масло), противообледенительный компонент в мелкодисперсной форме (ПТФЭ, полихлортрифторэтилен, перфторполиэфиры, поливинилиденфторид, перфторполиэфироксиды, фториды Ba, Ca или Li), диспергатор для него, КТ в виде соединения металлов с атомными номерами 21-31, 39-49 и 71-81, а также возможно соединение F (криолит). Такие КМ после нанесения на обшивку фюзеляжа самолета обеспечивают за счет протекания ряда химических реакций дефторирования и фторирования химическое соединение материала подложки и наружного противообледенительного слоя.
	США П. № 6410626 МПК С 08 K 5/24	Заявитель Daikin Ind. Ltd, Wada Susumu, Imoto Katsuhiko, Honda Kayoko. З. № 09/423070 Дата подачи 30.04.1998 Опубл. 25.06.2002	33.	Водная дисперсия композиции и изделия с покрытием. Aqueous dispersion composition and coated articles Для защиты пористых конструкционных и строительных материалов от воздействия влаги и улучшения внешнего вида на их поверхность наносят водную дисперсию композиции, включающей репеллент, полисилоксан и фторполимер.
	США П. № 6448302 МПК С 09 D 4/00	Заявитель The Sherwin-Williams Co., Dawson William R., Liang Tai M., Miller Joseph E. З. № 09/724149 Дата подачи 28.11.2000 Опубл. 10.09.2002	34.	Матовые окрасочные системы радиационного отверждения. Radiation curable coatings having low gloss and coated articles made therefrom Окрасочные системы содержат смесь полимеризуемого компонента (ди-, три- и полиакрилаты) и 10% воска (ПТФЭ) и необходимое количество фотоинициатора, а также возможно кремнезема и (или) глинозема.
	США	Заявитель	35.	Матовые порошковые окрасочные системы. Matte finish powder

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	П. № 6432488 МПК В 05 D 1/06;	Rohm and Haas Co., Daly Andrew T., Haley Richard P., Nicholl Edward G З. № 09/627672 Дата подачи 28.07.2000 Опубл. 13.08.2002		Матовые порошковые окрасочные системы содержат (ч.) 20-100 полиглицидилметакрилата, до 35 дикарбоновой кислоты (себациновая, полиангидрид 1,12-додекандионовой к-ты), 1-10 КТ - аддукт изопропилимидазола и диановой ЭС и необходимое кол-во текстурирующего матирующего агента (порошок ПТФЭ или его смеси с низкоплавкими восками). Такие системы используют для электростатич. окраски кухонной мебели. Получаемые покрытия отмечаются повышенной влагостойкостью и стойкостью к пожелтению.
	США П. № 6383638 МПК С 09 С 1/62	Заявитель Flex Products, Inc., Coulter Kent E., Mayer Thomas, Phillips Roger W., Matteucci John S. З. № 09/687490 Дата подачи 13.10.2000 Опубл. 07.05.2002	36.	Пигменты на основе ярких металлических хлопьев. Bright metal flake based pigments В кач-ве пигмента используют частицы металлов (Al, Cu, Ag, Au, Pt, Pd, Ni, Co, Sn, Nb, Cr, их сплавов), имеющие форму хлопьев толщиной 10-200 (40-150) нм и покрытые слоем MgF[2], SiO, SiO[2], Al[2]O[3], TiO[2], ZnS или их сочетаниями, с коэф. преломлением $n_{1,65}$ и защитным слоем, состоящим из полиакрилатов, полиперфторалкенов, ПТФЭ, фторированного СПЛ этилен/пропилен или их комбинаций, толщиной 50-800 нм.
	США П. № 6174955 МПК С 08 L 27/12	Заявитель Central Glass Co, Ltd, Hirashima Yoshi, Maeda Kazuhiko, Kobayashi Satoru, Tsutsumi Kentaro. З. № 09/139272 Дата подачи 25.08.1998 Опубл. 16.04.2001 Приоритет 15.05.1995, N 7-115987 (Япония)	37.	Водные окрасочные системы на основе фторполимеров. Water-based fluorine-containing paint Водные окрасочные системы содержат (ч.) на 100 вододисперсионного СПЛ 30-65 мол.% фторолефина, 14-69 мол.% виниловых сомономеров и 1-30 мол.% смеси гидроксивинилового мономера и ненасыщенной карбоновой кислоты (10-ундециленовая) 1-50 отвердителя в виде самоэмульгирующегося продукта обработки гидрофильного полиизоцианата алкоксисилированным соединением с 1-20 звеньями этиленоксида при их соотношении по массе 1/(0,01-1).
	США П. № 6156860 МПК С 08 F 120/22	Заявитель Dainippon Ink and Chemicals, Inc., Tanaka Kazunori, Takano Kiyofumi, Higuchi Toraо, Hashimoto Yutaka З. № 09/024564 Дата подачи 17.02.1998 Опубл. 05.12.2000 Приоритет 18.02.1997, N 9-033717 (Япония)	38.	Фторполимерные ПАВ и окрасочные системы с их использованием. Surface active agent containing fluorine and coating compositions using the same Фторполимерные ПАВ представляют собой СПЛ винилового мономера с фторалкильной группой и винилового мономера с органосилоксановой группой. Окрасочные системы с добавкой таких ПАВ образуют ровные, гладкие покрытия с пониженным коэффициентом трения.
	США П. № 6168866	Заявитель 3M Innovative Properties Co., Clark	39.	Окрасочные системы, содержащие фторполимер и грязеотталкивающие абразивостойкие покрытия на их основе. Abrasion and stain resistant curable

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	МПК В 32 В 15/08	Gregory D. З. № 09/136185 Дата подачи 19.08.1998 Опубл. 02.01.2001		fluorinated coating Окрасочные системы содержат в качестве пленкообразующего аминок-альдегидный полимер, фторполимер с реакционноспособной функциональной группой и сшивающий агент. Фторполимер соответствует формуле $X_{-}[C(R\{1\},R\{2\})C(R\{3\})[2]_{-}][a]_{-}[C(R\{4\})[2]C(R\{4\})[2]_{-}][b]Z$, где R{1} - радикал формулы - QR[f], R{2} - водород, галоген или C[1-4] - алкил, R{3} - водород или C[1-4] - алкил, R{4} - водород, галоген или органический радикал, R[f] - фторалифатический или фторэфирный радикал, Q - органический дирадикал, X - остаток инициатора свободнорадикального типа, Z - водород, остаток агента передачи цепи или силанового агента сочетания.
	США П. № 6208077 МПК H 01 J 1/62	Заявитель Eastman Kodak Co., Hung Liang-Sun. З. № 09/186538 Дата подачи 05.11.1998 Опубл. 27.03.2001	40.	Электр люминисцентные приборы с электроизоляционным слоем из фторуглеродного полимера. Organic electroluminescent device with a non-conductive fluorocarbon polymer layer Электр люминисцентные приборы состоят из электроизоляционной прозрачной или непрозрачной основы (стекло, пластмасса, керамика), на которую нанесен слой электропроводного материала анода (окислы металлов, нитрид Ca, ZnSe, ZnS), слоя фторполимера толщиной 0,2-3 нм, полученного осаждением из плазмы радиочастотного (13,6 МГц) разряда в C[3]F[8], C[4]F[10], CHF[3], C[2]F[4] или C[4]F[8], светозлучающего слоя и слоя материала катода с работой выхода <4 эВ (Au, Ir, Pd, Pt).
	США П. № 6232372 МПК C 08 K 9/00	Заявитель E. I. du Pont de Nemours and Co., Brothers Paul Douglas, Kerbow Dewey Lynn, McKeen Laurence W З. № 09/270922 Дата подачи 16.03.1999 Опубл. 15.05.2001	41.	Композиции в виде многокомпонентных частиц на основе фторполимеров и полимерных связующих с увеличенной термостабильностью, недиспергированных [по массе фторполимеров]. Multicomponent particles of fluoropolymer and high temperature resistant non-dispersed polymer binder Композиции для изготовления покрытий на металлич. недиспергированных субстраты содержат фторполимеры с полярными функциональными группами и полимерные связующие с увеличенной термостабильностью, образующие с ними химические связи. Предпочтительно фторполимеры образуют сердцевину, а связующие их поверхности оболочку. Композиции имеют форму высокотекучих порошков, не подверженных сегрегации при переработке.
	США П. № 6248823 МПК C 08 D 27/12	Заявитель E. I. d Pont de Nemors and Co., Hrivnak Jeffrey A., Mahler Walter, O'Brien George, Petrov Viacheslav Alexandrovich, Wheland Robert Clayton. З. № 09/338149 Дата подачи 23.06.1999	42.	Растворители для аморфных фторполимеров. Solvents for amorphous fluoropolymers Покрывные пленкообразующие композиции содержат аморфные фторполимеры (ФПМ) и как р-рителы или образующие с ФПМ гели смеси фторалканов ф-л $C[n]F[2n+2-x]H[x]$ и $C[n]F[2n-x]H[x]$, где n=6-15, x=1-3. ФПМ - сополимеры гексафторпропилена и тетрафторэтилена (I), сополимер I и перфторметилвинилового эфира с концевыми иодированными группами

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		Опублик. 19.06.2001		
	США П. № 6228932 МПК С 08 J 3/00	Заявитель DuPont Mitsui Fluorochemicals, Saito Takumi З. № 09/213833 Дата подачи 17.12.1998 Опублик. 08.05.2001	43.	Водные фторполимерные дисперсии для нанесения толстослойных покрытий. Fluororesin powder liquid dispersion capable of forming thick coatings Водные дисперсии содержат 5-50% частиц термоплавкого фторполимера < размером частиц 5-300 мкм (СПЛ тетрафторэтилена), до 6% микронизированного наполнителя размером частиц < 8 мкм (SiO ₂ , Al ₂ O ₃ , Zn, SnO ₂), полиэфирсульфоны, полиимиды, ароматич. ПЭФ и ПА и т. п.) и жидкофазный носитель с поверхностным натяжением < 45 дин/см.
	США П. № 6245854 МПК С 09 D 127/12	Заявитель Visteon Global Technologies, Inc., Obioha Chimere N., Farah Riad A., Schuetzle Dennis, Zhang Yun-xiang З. № 09/209840 Дата подачи 11.12.1998 Опублик. 12.06.2001	44.	фторполимерные композиции для нанесения гидрофильных покрытий на поверхность теплообменной аппаратуры. Fluorocarbon-containing hydrophilic polymer coating composition for heat exchangers Гидрофильные покрытия с углом смачивания водой < 50° получают на основе СПЛ формулы -[CH ₂ C(R ₁),R ₂)] _n -[CH ₂ C(R ₁ , R ₃)] _m -[CH ₂ CH(R ₄)] _z , где R ₁ - водород или метил, R ₂ - гидроксил или радикал формул -C(O)NH ₂ , -OC(O)CH ₃ или -NCH ₂ CH ₂ CH ₂ CO, R ₃ - радикал формулы -C(O)O(X)[p]R[f], R ₄ - радикал формулы -C(O)OR ₅ , R ₅ - радикал формулы -C(CH ₃) ₂ , CH ₂ SO ₃ Na или -CH ₂ CH ₂ N(CH ₃) ₃ Cl, X - орг. дирадикал, p=0 или 1, R[f] - перфторалкил или перфторированный полиоксикалиленовый радикал, m=0,01-10 мол.%, (n+z)=90-99,99 мол.%, n/z=(10-90)/(10-90).
	США П. № 6258758 МПК	Заявитель Platinum Research Organization, Greer F. Conrad. З. № 09/258171 Дата подачи 25.03.1999 Опублик. 10.07.2001	45.	Окрасочные системы с добавлением промотирующего адгезию катализатора. Catalyzed surface composition altering and surface coating formulations and methods Композиции для нанесения покрытий содержат жидкофазный носитель, материал для формирования покрытия (ПТФЭ, др. фторполимеры, графит, BaF ₂ , CaF ₂ , LiF), диспергатор для него и КТ в виде соединения переходного металла с атомными номерами 21-31, 39-49 и 71-81 и(или) соединения фтора (Na ₃ AlF ₆ , FeF ₃ , AlF ₃ , ZrF ₄ , TiF ₃ , TiF ₄) и(или) соединения Al(Al ₂ O ₃).
	США П. № 6310141 МПК С 08 L 27/12	Заявитель Dyneon LLC, Chen Lisa P., Kaspar Harald, Hintzer Klaus, Kolb Robert E., Killich Albert. З. № 09/604139 Дата подачи 27.06.2000 Опублик. 30.10.2001	46.	Смеси на основе фторполимеров. Fluoropolymer-containing compositions Смешивают латексы фторкаучука и фторопласта и коагулируют смесь, получая глобулы с ядром из фторопласта и оболочкой из фторкаучука. В качестве фторопласта применяют сополимер тетрафторэтилена, гексафторпропилена и винилиденфторида с температурой плавления 110-260°. Фторкаучук получают сополимеризацией (%) 20-60 тетрафторэтилена, 10-40 винилиденфторида, 30-50 гексафторпропилена и 0,1-10 перфторвинилового эфира.
	США	Заявитель	47.	Антикоррозионные окрасочные системы. Corrosion barrier coating composition

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	П. № 6323264 МПК С 08 К 3/10	Turbine COntrols, Inc., Nazaryan Nikolay, Orkin Stanley S., Greenberg Glen. З. № 09/434192 Дата подачи 04.11.1999 Опубл. 27.11.2001		Антикоррозионные окрасочные системы содержат (%) 1) 60-95 смеси 30-60 диановой ЭС, 3-7 хромата стронция и 10-30 4-глицидокси-N,N-диглицидиланилина, 2) 1-30 ПТФЭ и 3) 1-20 стеклопорошка.
	США П. № 6007626-A МПК B05C-007/00	Заявитель LEENDERTSEN H V З. № US810727 Пр-т 04 Март 1997 Опубл. 28 Декабрь 1999	48.	Coating apparatus for applying a very thin film of fluoropolymer to internal surfaces of a heat exchanger. NOVELTY - The apparatus includes a first pump (22) located in flexible tubing (11) between a first tank (22) containing flushing solution and the heat exchanger (14). A blower (30) directs air into the heat exchanger to dry the inner surfaces. A second pump (40) directs fluoropolymer solution stored in a second tank (34) into the heat exchanger to coat its internal surfaces, the pump having an outlet associated with the first flexible hose. A second flexible hose (16) includes an inlet associated with a heat exchanger outlet and an outlet associated with a piping manifold which units the tanks, pumps and blower with the flexible hoses. USE - For applying a very thin film of fluoropolymer to a substrate surface that is a heat transfer, aerodynamic or hydrodynamic substrate, e.g. for coating internal surfaces of a heat exchanger (claimed), radiator, oil cooler or oil heater. ADVANTAGE - Improves the heat transfer capabilities of substrates
	США П. № 6924036-B2 МПК F16C-033/20	Заявитель SOLVAY SOLEXIS SPA POLASTRI F ROGGIO T З. № US372077 Пр-т 25 Февраль 2003 Опубл. 04 Май 2005 Аналоги EP1340792-A1	49.	HOMOPOLYMER OR MODIFIED POLYTETRAFLUOROETHYLENE-BASED COMPOSITION USEFUL AS COATINGS FOR METAL SUBSTRATE OR STEELS, E.G. ALUMINUM COMPRISING SURFACTANT (MIXTURES), AND (IN)ORGANIC SEQUESTRANTS. NOVELTY - Homopolymer or modified polytetrafluoroethylene (PTFE)-based composition comprises (parts by weight): (1) aqueous nano dispersion or latex of modified PTFE (100); (2) surfactant (mixtures) (5-30); (3) (in)organic sequestrant (0.2-20); and (4) optionally solid lubricating compound (0-60). The sequestrant is capable to give bi- or poly- coordination bands forming with metal ions soluble complexes and prevents them from forming insoluble salts of the metals. USE - Useful as coatings for metal substrate or steels (claimed), e.g. aluminum. ADVANTAGE - The invention is capable of forming thin films having excellent adhesion properties, low friction coefficient, crack free, good wear resistance, good scratch resistance and no modification of finishing degree of treated metal surface.
	США П. № 5885658-A	Заявитель MCDONNELL DOUGLAS	50.	PROCESS FOR PROTECTING OPTICAL PROPERTIES OF THERMAL CONTROL COATING ON METAL SUBSTRATE IN LOW EARTH ORBIT

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	МПК B05D-001/02; B05D-001/38; B05D-007/14	TECHNOLOGIES INC З. № US889548 Пр-т 08 Июль 1997 Опубл. 23 Март 1999		OUTER SPACE ENVIRONMENT. NOVELTY - Organic coating for protecting optical properties of a thermal control coating on metal substrate. USE - Used in any spacecraft and is not restricted to spacecraft designed for low orbits. ADVANTAGE - The fluoropolymer is used on earth for protecting sensitive surfaces during manufacturing from physical damage due to handling while providing a surface that is easily cleaned without damaging the optical properties. The fluoropolymer coating also provides corrosion protection for an unanodised aluminum substrate.
	США з. № 5192543-A МПК B29C-047/86; B29C-047/94	Заявитель BORDEN INC З. № US751057 Пр-т 28 Август 1991 Опубл. 09 Март 1993	51.	HEATED DIE PLATE FOR EXTRUDING PASTE SHAPES FOR COOKING BY MICROWAVE - HAS EXTRUSION BORES WHICH TAPER DOWN IN FLOW DIRECTION AND ARE COATED IN PTFE FOR ALL BUT LAST TEN PER CENT AND HAS CROSS BORES FOR HEATING. Die plate for extruding alimentary pastes comprises: (a) extrusion orifices; (b) a coating applied to only a portion of the internal surface of each orifice leaving the remainder uncoated; (c) means for heating the die plate. Heat transfer to the paste is effectively inhibited by the coating so that heating only occurs in the uncoated portion of the orifices. Pref. circular die plate has an external collar by which it is attached to an extruder. Circular array of extrusion bores are provided axially through the die. These taper to a smaller dia. in the direction of extrusion and have a coating (cross-hatched) applied to all but the last 10-25% of the internal surface, again in the direction of extrusion. Coating is a plastic material having a low coefft. of friction and a low thermal conductivity, such as PTFE or PVDF. This prevents heat transfer to the paste within the die until the last uncoated portion of the orifices. Electrical resistance heaters are provided inside a series of cross bores at the exit end of the die. USE/ADVANTAGE - Used for preparing extruded pasta shapes which are capable of being cooked by microwave
	США п. № US6323264-B1 МПК C08K-003/10; C08L-063/02	Заявитель TURBINE CONTROLS INC з. № US434192 пр-т 04 Ноябрь 1999 опубл 27 Ноябрь 2001	52.	CORROSION BARRIER COATING COMPOSITION FOR PROVIDING SUBSTRATE, E.G. METAL PARTS WITH PROTECTION FROM NATURAL ELEMENTS COMPRISES ONE-COMPONENT EPOXY RESIN, POLYTETRAFLUOROETHYLENE, AND GLASS POWDER. NOVELTY - A corrosion barrier coating composition comprises (wt.%): (i) one-component epoxy resin (60-95) consisting of (a) 4-glycidyoxy, N,N-diglycidyl aniline (10-30), (b) epichlorohydrin ether of bisphenol A (30-60), and (c) strontium chromate (3-7); (ii) polytetrafluoroethylene (1-30); and

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				<p>(iii) glass powder (1-20). USE - For providing a substrate, e.g. metal parts with protection from natural elements such as water, carbon dioxide, salts, spray, oxygen, ozone, or ultraviolet radiation. ADVANTAGE - The composition is inexpensive to prepare, compatible with wide variety of substrate materials and configurations, and can be applied in simple procedures. Its viscosity can be easily adjusted, and it does not require bonding pressures to ensure excellent adhesion to substrates. It also provides a thicker layer of corrosion protection than the corrosion coatings of the prior art.</p>
	<p>США п. № 4988540-A МПК B05D-001/00; B05D-007/04; B29C-041/32</p>	<p>Заявитель DU PONT DE NEMOURS & CO E I З. № US378095 Пр-т 11 Июль 1989 Опубл. 29 Январь 1991</p>	53.	<p>FLUORO:POLYMER LAMINATES CONTG. AT LEAST ONE POLYVINYL FLUORIDE LAYER - MADE BY DISPERSION COATING FIRST FILM AND CURING SECOND FILM SO FORMED, ARE USEFUL FOR THERMO:FORMING INTO SURFACE COATINGS. Laminates having at least one layer of polyvinyl fluoride (PVF) are obtd. by coating a first fluoropolymer layer (L1) with a dispersion of a fluoropolymer to form a second layer (L2) and coalescing the latter at a temp. below the m.pt. of L1. The resulting laminate has a film-tearing interfacial bond and no interfacial comingling of the adjacent fluoropolymer layers beyond the molecular level. Both layers consist of PVF, or L2 may be PTFE or a copolymer of tetrafluoroethylene and perfluoro(alkyl vinyl ether). L1 is formed on a supporting surface, either from molten polymer or more pref. from a dispersion of the polymer in solvent, and subsequently coalesced into film of thickness 0.05-15 mils by heating below the m.pt. of the polymer to remove solvent. L2 is then formed and coalesced in a similar manner, opt. using a dispersion incorporating pigments in the form of a mill base. A scratch-resistant coating may be applied to the surface of L1.</p>
	<p>США п. № 6676049 МПК B05B-005/00; B05B-001/00; F23D-011/32</p>	<p>Заявитель VAN DER STEUR G EFC SYSTEMS INC З. № US993011 Пр- 16 Ноябрь 2001 Опубл. 13 Январь 2004</p>	54.	<p>ROTATABLE POWDER BELL CUP ELECTROSTATIC SPRAY ASSEMBLY FOR APPLYING POWDER COATINGS TO SUBSTRATES, COMPRISES BELL SHAPED BODY REMOVABLY AND THREADABLY CONNECTED CONCENTRICALLY TO FIRST DEFLECTOR HAVING CONNECTORS. A rotatable power bell cup electrostatic spray assembly that is attachable to rotational drive, comprises a bell shaped body (16) removably and threadably connected concentrically to a first deflector having connectors removably and threadably insertable into the body. The body and the first deflector are configured to form, when connected together, a tapered annular passageway in-between. USE - For attaching to rotational drive connected to turbine housing (claimed) to apply powder coatings to substrates of automotive vehicles. ADVANTAGE - All corners around which powder passes are rounded, thus achieving streamlined flow and little or no powder accumulation, as well as improved efficiency, ease of assembly and disassembly, and ease of cleaning for such assembly.</p>

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	СИИА п. № 6857125-B2 МПК G02B-007/182; G11B-007/00	Заявитель NTN CORP (NTNT) AKROS LTD З. № US306525 Пр-т 27 Ноябрь 2002 Оpubл. 12 Июнь 2003 Аналоги JP2003242703-A CN1424716-A	55.	COMPONENT FOR CONTACTING WITH OPTICAL DISK IN OPTICAL DISK DEVICE COMPRISES COMPONENT CONTACTABLE WITH OPTICAL DISK, HAVING COATING OF URETHANE RESIN BASE, POLYURETHANE PARTICLES AND FLUORORESIN POWDER. A contact component comprises a component which is contactable with an optical disk (6a) having a coating on the surface. The coating (5) comprises an urethane resin as a base and at least polyurethane particles, and fluororesin powder. USE - For optical disk devices such as compact disk, digital video display, magneto optical disk, magnetic disk and digital video display-random access memory. ADVANTAGE - The contact component comprises coating film having excellent slidability and elastic deformation which relax the collision or friction to the optical disk, and hence prevents the optical disk from getting scratched. The coating film formed on the component has excellent flexibility, abrasion resistance and adhesiveness. Data reading surface of the optical disk is not damaged, even if the data reading surface is directly contacted with disk tray, disk insertion, objective lens and objective lens holding material.
	СИИА п. № 6866894-B2 МПК B05D-005/00; B21K-011/00;	Заявитель GILLETTE CO З. № US192418 Пр-т 10 Июль 2002 Оpubл. 15 Март 2005	56.	MANUFACTURE OF RAZOR BLADE FOR SHAVING, INVOLVES APPLYING AQUEOUS SOLUTION CONTAINING POLYTETRAFLUOROETHYLENE WITH PRESET MOLECULAR WEIGHT ON SHARPENED TIP OF CUTTING EDGE OF SUBSTRATE TO FORM OUTER LAYER. NOVELTY - An aqueous solution containing polytetrafluoroethylene with a molecular weight of 45000 is applied on a sharpened tip of a cutting edge of a substrate (12) with cutting edge having sharpened tip and adjacent facets, to form an outer layer (20). USE - For making a razor blade for shaving. ADVANTAGE - The razor blade has improved edge strength provided by hard-coating layer and has reduced tip rounding with repeated shapes. The tip minimizes the increase in cutting force and maintains excellent shaving performance. The chromium-containing overcoat layer provides improved adhesion due to polytetrafluoroethylene. The interlayer facilitates the bonding of hard coating layer to the substrate. The hard coating layer provides improved strength, corrosion resistance and shaving ability, due to carbon-containing materials. The outer layer provides reduced friction. Polytetrafluoroethylene in the outer layer is nonflammable and stable dry lubricant containing small particles which yield stable dispersions.
	СИИА в.з. № 2003121158-A1 МПК B26B-021/54	Заявитель GILLETTE CO З. № US361951 Пр-т 10 Февраль 2003 Оpubл. 03 Июль 2003	57.	PRODUCTION OF RAZOR BLADE COMPRISES APPLYING AQUEOUS SOLUTION INCLUDING POLYTETRAFLUOROETHYLENE COATING OVER THE SHARPENED TIP DEFINING THE CUTTING EDGE OF SUBSTRATE. A razor blade (10) is made by providing a substrate with cutting edge defined by sharpened tip and adjacent facets, and applying an aqueous solution including polytetrafluoroethylene coating over the sharpened tip to result in an outer layer (20).

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				<p>The polytetrafluoroethylene has molecular weight of 45,000.</p> <p>USE - For making a razor blade.</p> <p>ADVANTAGE - The method provides razor blade that has improved edge strength provided by hard coating, and has reduced tip rounding with repeated shaves. The reduced tip minimizes the increase in cutting force thus maintaining excellent shaving performance. The razor blade has excellent shaving characteristics from the first shave onwards.</p> <p>DESCRIPTION OF DRAWING(S) - The drawing shows a vertical sectional view of a cutting edge portion of the a razor blade.</p>
	<p>США П. № 6887334-B2 МПК C23C-018/32</p>	<p>Заявитель HONEYWELL INT INC З. № US351920 Пр-т 27 Январь 2003 Опубл. 03 Май 2005 Аналоги WO2004069533-A1 EP1587680-A1</p>	58.	<p>THIN FILM LAMINATION-DELAMINATION FOR E.G. MEDICAL PACKAGING, COMPRISES APPLYING A THIN FLUOROPOLYMER BASE LAYER ON A SUPPORT LAYER, APPLYING AN ADHESIVE LAYER ATTACHED TO A RECEIVER SHEET, AND SEPARATING THE SUPPORT LAYER.</p> <p>Thin film lamination-delamination comprises:</p> <p>(a) applying a thin fluoropolymer base layer (11) onto a surface of a support layer (12), with a surface of (11) in contact with a surface of (12);</p> <p>(b) applying an adhesive layer (13) onto a second surface of (11);</p> <p>(c) attaching (11) to a receiver sheet via (13); and</p> <p>(d) separating (12) from (11), so that (11) remains attached to the receiver sheet.</p> <p>USE - In a thin film lamination-delamination process (claimed) useful for medical packaging, pharmaceutical packaging (e.g. for forming thermoformed three dimensionally shaped articles such as blister packaging for pharmaceuticals and barrier packaging) and industrial uses.</p> <p>ADVANTAGE - A fluoropolymer film laminate with very thin, transferable fluoropolymer film having improved thermal stability is formed. The laminates have a good moisture barrier property and which have a thickness of less than 0.4 mil (10.2 microm) (preferably 0.04 - 0.4 mil (1 - 10.2 microm), especially 0.08 - 0.4 mil (2 - 10.2 microm)).</p>
	<p>США З. № 2004131784-A1 МПК B05D-003/02; C09D-007/00; C09D-163/00; C09D-163/10; C09D-191/06; C09D-191/08</p>	<p>Заявитель GLIDDEN CO З. № US338520 Пр-т 08 Январь 2003 Опубл. 08 Июль 2004 Аналоги WO2004063298-A1; EP1583807-A1</p>	59.	<p>COATING COMPOSITION USEFUL FOR COATING BEVERAGE AND FOOD CONTAINER COMPRISES SOLIDS CONTAINING AN EPOXY-BASED RESIN; AND LUBRICANT COMPOUND HAVING A FIRST SURFACE MODIFIER AND A SECOND SURFACE MODIFIER.</p> <p>For coating beverage and food container.</p> <p>ADVANTAGE - (C1) has improved release properties during fabrication of the coated substrate; eliminates the toxicological issues associated with the use of polyvinylchloride coatings; minimizes the environmental problems associated with the use of organic solvents; and provides excellent adhesion, flexibility and chemical resistance necessary for a high quality metal container. The epoxy-based resin improves the quality of the formed substrate to increase productivity.</p>

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				<p>DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a method for coating a metal substrate involving applying (C1) to the metal substrate; heating the metal substrate and (C1) until the coating is cured to produce a cured coating film having a film weight of 1 - 8 mg/in².</p>
	<p>СИА В.з. № 2004126527-A1 МПК B32B-001/08</p>	<p>Заявитель МАРТУCCI N S MATHEW B A НАHN R З. № US663317 Пр-т 15 Сентябрь 2003 Опубл. 01 Июль 2004</p>	60.	<p>HOSE ASSEMBLY (ШЛАНГОВОЕ СОЕДИНЕНИЕ) FOR USE IN E.G. AUTOMOTIVES AND AERONAUTICS FOR CARRYING FUELS COMPRISES INNER FLUOROPOLYMER LAYER HAVING SMOOTH INNER SURFACE AND JACKET SURROUNDING INNER LAYER AND HAVING CORRUGATED OUTER SURFACE.</p> <p>NOVELTY - A hose assembly comprises an inner fluoropolymer layer (12) having a smooth inner surface (33); and a jacket (14) surrounding the inner fluoropolymer layer and having a corrugated outer surface.</p> <p>USE - For use in automotive, aeronautics and other environs for carrying fluids, e.g. fuels.</p> <p>ADVANTAGE - The hose is resistant to kinking when being bent without adding extensive labor or time to the manufacturing process.</p> <p>DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of making a hose assembly by forming a smooth inner fluoropolymer layer; forming a jacket over the inner fluoropolymer layer while adhering the jacket and the first layer together; and corrugating the jacket.</p>
	<p>СИА В.з. № 2005153610-A1 МПК B32B-003/00; B32B-027/12; C09D-127/12; C09D-127/18</p>	<p>Заявитель TONOGA INC З. № US756738 Пр-т 13 Январь 2004 Опубл. 14 Июль 2005 Аналоги WO2005071028-A1</p>	61.	<p>PREPARATION OF PARTICLE FILLED FLUOROPOLYMER COATING COMPOSITION FOR APPLICATION TO SUBSTRATE COMPRISES COMBINING CERAMIC FILLER MATERIAL, FLUOROPOLYMER COATING COMPOSITION AND SILICONE OIL.</p> <p>A particle filled fluoropolymer coating composition is prepared by combining ceramic filler material, fluoropolymer coating composition and silicone oil to yield particle filled fluoropolymer emulsion composition.</p> <p>USE - Used in the preparation of particle filled fluoropolymer coating composition for application to substrate (claimed).</p> <p>ADVANTAGE - The invention provides improved approach to utilizing high molecular weight fluoropolymers that exhibit poor film formation properties and propensity to fibrillate.</p> <p>The unfilled fluoropolymer is selected from homo or copolymers of tetrafluoroethylene (TFE). The third fluoropolymer is selected from perfluoroalkoxy copolymer, perfluoromethylvinylether (MFA) or polytetrafluoroethylene (PTFE) The silicone oil comprises a methyl terminated polydimethylsiloxane (PDMS) with a molecular weight greater than 1000 Daltons</p>
	<p>СИА В.з. № 2005139993-A1</p>	<p>Заявитель LEE D S</p>	62.	<p>PLASTIC MICROFABRICATED STRUCTURE FOR E.G. BIO CHIP, MICRO BIOLOGICAL/CHEMICAL REACTOR, MICRO ARRAY, COMPRISES PLASTIC</p>

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	МПК H01L-023/10; H01L-027/14; H01L-029/06; H01L-029/82; H01L-029/84	YANG H S LIM Y T CHUNG K H KIM S J PARK S H KIM K W KIM Y T 3. № US899177 Дата подачи 27 Июль 2004 Приоритетные данные KR 097066 26 Декабрь 2003 Оpubл. 30 Июнь 2005	США	MICROFABRICATED SUBSTRATE HAVING PREDETERMINED THICKNESS AND PROVIDING HEATING REGION. A plastic microfabricated structure for a bio chip comprises a plastic microfabricated substrate (101) having a predetermined thickness and providing a heating region (100); and a support (102) for supporting the plastic microfabricated substrate. USE - For a bio chip, a microfabricated thermal device, a microfabricated reactor, a micro array (claimed), a PCR chip, a protein chip, a DNA chip, a drug delivery system, a micro biological/chemical reactor, and a lab-on-a-chip. ADVANTAGE - The plastic microfabricated structure provides the heating region by insulating plastic having a thickness of 1-500 microns, flatness enough to allow a photolithography process to be performed, thermal isolation in some or total area, and a small thermal mass. Fabrication cost is reduced and process is facilitated. The heating region is formed of a plastic thin layer so that uniform temperature control is possible even with a low power. Various samples may be thermally treated at a fast speed to obtain their reaction and analysis. Preferred Materials: The plastic microfabricated substrate is formed of cyclo olefin copolymer (COC), polymethylmethacrylate (PMMA), polycarbonate (PC), cyclo olefin polymer (COP), liquid crystalline polymer (LCP), polydimethylsiloxane (PDMA), polyamide (PA), polyethylene (PE), polyimide (PI), polypropylene (PP), polyphenylene ether (PPE), polystyrene (PS), polyoxymethylene (POM), polyetheretherketone (PEEK), polyethersulfone (PES), polyethylene terephthalate (PET), polytetrafluoroethylene (PTFE) , polyvinyl chloride (PVC), polyvinylidene fluoride (PVDF), polybutylene terephthalate (PBT), fluorinated ethylenepropylene (FEP), and/or perfluoroalkoxyalkane (PFA).
	США В.з. № 2005115840-A1 МПК C25D-007/00; C25D-011/00	Заявитель DOLAN S E 3. № US968023 Пр-т 02 Октябрь 2001 Оpubл. 02 Июнь 2005	63.	FORMING A PROTECTIVE COATING ON SURFACE OF METAL ARTICLE E.G. COOKWARE, INVOLVES FORMING ANODIZED LAYER OF TITANIUM DIOXIDE AND/OR ZIRCONIUM DIOXIDE ON THE METAL ARTICLE, AND THEN FORMING POLYTETRAFLUOROETHYLENE OR SILICONE COATING Forming a protective coating on surface of metal article involves providing an anodizing solution comprised of water, and additional component(s); providing a cathode in contact with the anodizing solution; placing the metal article as anode in the anodizing solution; passing current between the anode and cathode to form a first protective coating; and forming PTFE or silicone coating on the metal article. USE - The method is used for forming a protective coating on a surface of a metal article, e.g. cookware (claimed). ADVANTAGE - The method provides corrosion-, heat- and abrasion-resistant ceramic coatings. The protective coating is white in color, thus eliminating the need to paint the anodized surface if a white decorative finish is desired. - Forming a protective coating on a surface of a metal article comprising aluminum or aluminum alloy, involves providing an anodizing solution comprised of water, and

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				additional component(s); providing a cathode in contact with the anodizing solution; placing a metal article comprising aluminum or aluminum alloy as an anode in the anodizing solution; passing a current between the anode and cathode through the anodizing solution for a time effective to form a first protective coating on the surface of the metal article; removing the metal article having a first protective coating from the anodizing solution and drying the article; and applying paint layer(s) to the metal article having a first protective coating, at least one of the layers comprising PTFE or silicone, to form a second protective coating. The additional component comprises water-soluble complex fluorides, water-soluble complex oxyfluorides, water-dispersible complex fluorides, or water-dispersible complex oxyfluorides of elements selected from titanium, zirconium, hafnium, tin, aluminum, germanium and/or boron.
	СИПА В.з. № 2004226918-A1	Заявитель TAIWAN SEMICONDUCTOR MFG CO LTD З. № US423569 Пр-т 24 Апрель 2003 Опубл. 18 Ноябрь 2004	64.	SLURRY SYSTEM FOR LOW CONSTANT CHEMICAL MECHANICAL POLISHING PROCESS, COMPRISES AQUEOUS DISPERSION HAVING PARTICLES FROM ELASTOMERIC POLYMER OUTER SURFACE AND PARTICLES OF ELASTOMERIC POLYMER. A slurry system comprises an aqueous dispersion having particles from elastomeric polymer outer surface and particles of an elastomeric polymer. The particles dispersed in an alkaline solution having a pH of less than 10. The aqueous dispersion has a solids content of less than 10 wt.% of the total weight of the aqueous dispersion. USE - For low-constant oxide chemical mechanical polishing process. The particles comprise a thermoplastic material. They are also polyurethanes, neoprenes, silicones, fluorosilicones, fluorocarbon polymers, polysulfones, acrylic resins, polyacetals, saturated polyesters, polyamides, polyimides, polypropylene, phenol resins, urea resins, melamine resins or epoxy resins. They also comprise an elastomeric polymer coating over a metal oxide particle. Preferred Property: The particles have a mean particle diameter of 50-200 nm. The pH of the aqueous dispersion is 7-10. Preferred Composition: The aqueous dispersion comprises a solids content of 0.5-10, preferably 5.5-6.5 wt.% of the total weight of the aqueous dispersion.
	СИПА В.з. № 2004226506-A1 МПК B05C-013/00; B05C-013/02	Заявитель LYNN D M З. № US438552 Пр-т 14 Май 2003 Опубл. 18 Ноябрь 2004	65.	WAFER-PROCESSING COMPONENT, E.G. WAFER CARRIER OR TANK, COMPRISES QUARTZ SUBSTRATE AND FLUOROPOLYMER COATING. For processing semiconductor wafers. ADVANTAGE - The inventive wafer-processing component can tolerate hot and acidic environments while maintaining rigidity and without shedding of particulates. DESCRIPTION OF DRAWING(S) - The figure is a perspective view of a wafer carrier and acid bath. Wafer carrier (10) Bottom rail (12) Side rails (14-17) Wafers (20)

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			СИИ	<p>End brackets (22, 24) Slots (29) Tank (30)</p> <p>TF TECHNOLOGY FOCUS - CERAMICS AND GLASS - Preferred Materials: The bottom rail, side rails, end brackets, and side supports are made from quartz and coated with fluoropolymer coating.</p> <p>TECHNOLOGY FOCUS - MECHANICAL ENGINEERING - Preferred Components: The component is a wafer carrier (10) or a tank (30). The wafer carrier comprises a bottom rail (12); first and second side rails (14-17); a first end bracket (22) attached to a first end of each of the bottom rail and side rails; a second end bracket (24) attached to a second end of each of the bottom rail and side rails; and first and second side supports arranged to define a wafer-receiving space between them. The bottom rail and side rails comprise slots (29), each being designed to receive a wafer (20). The tank has a bottom and four sidewalls, each coated with fluoropolymer coating; and a heater for heating a liquid within the tank. The heater comprises a heating element coated with fluoropolymer coating.</p>
	<p>СИИ П. № 6930861-B2 МПК G11B-005/56; G11B-005/596; G11B-021/10;</p>	<p>Заявитель SEAGATE TECHNOLOGY LLC З. № US409385 Пр-т 08 Апрель 2003 Опубл. 14 Октябрь 2004 Аналоги JP2004310973-A</p>	66.	<p>MICRO-ACTUATOR FOR SELECTIVELY ALTERING POSITION OF TRANSDUCING HEAD WITH RESPECT TO TRACK OF ROTATABLE DISK, COMPRISES POLYMER COATING ENCAPSULATING EXPOSED SURFACES OF PIEZOELECTRIC ELEMENT</p> <p>A micro-actuator comprises a piezoelectric element, and a polymer coating encapsulating the exposed surfaces of a piezoelectric element.</p> <p>USE - Used for selectively altering the position of a transducing head carried by a slider in a disk drive system w.r.t a track of rotatable disk.</p> <p>Preferred Process: The polymer coating is applied to the piezoelectric element by dip coating, gravity coating, spray coating, screen coating, roll coating, or vapor deposition, prior to placement of piezoelectric element in the disk drive system. After application of the polymer coating, the piezoelectric element is cured by heat, UV rays, or an electron beam. Preferred Dimensions: The polymer coating is uniform and has a thickness of less than or equal to 1 microns (preferably 25-30 Angstrom). Preferred Device: Alternatively, the micro-actuator (32) comprises a first piezoelectric element (38a) attached between a mounting block (26) and a suspension (24), and deformable in response to an applied voltage; a second piezoelectric element (38b) attached between the mounting block and suspension, and deformable in a direction complementary to deformation of the first piezoelectric element in response to an applied voltage; a uniform polymer coating encapsulating the exposed surfaces of the first and second piezoelectric elements; and a compliant joint (36) connected between the mounting block and suspension to permit movement of the suspension with respect to the mounting block. The piezoelectric element comprises single-layer or multi-layer crystal die.</p>

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	СИА В.з. № 2004200634-A1 МПК H01B-007/29	Заявитель MIDCON CABLES CO LLC З. № US407176 Пр-т 07 Апрель 2003 Опубл. 14 Октябрь 2004	67.	<p>TECHNOLOGY FOCUS - POLYMERS - Preferred Materials: The polymer coating and encapsulant comprise fluorocarbon polymer, parylene, or epoxy.</p> <p>MANUFACTURE OF ELECTRICAL WIRE FOR AERONAUTICAL APPLICATIONS, BY PASSING INSULATED WIRE IN METALLIC POWDER DISPERSED IN POLYTETRAFLUOROETHYLENE SOLUTION, HEATING COATED WIRE, AND APPLYING OUTER POLYTETRAFLUOROETHYLENE INSULATION COATING.</p> <p>An electrical wire (10) that is shielded from electromagnetic and radio frequency interference, is manufactured by passing insulated wire through a reservoir containing metallic powder dispersed in a polytetrafluoroethylene solution to provide a conductive coating on the wire; heating the coated wire to cure the conductive coating on the wire; and applying an outer polytetrafluoroethylene insulation coating around the conductive coating.</p> <p>USE - For aeronautical applications.</p> <p>ADVANTAGE - The invention can provide shielded wire which is simple in construction, inexpensive to manufacture, light in weight, small in diameter and of improved flexibility compared to previously used shielded wire.</p> <p>The outer polytetrafluoroethylene (PTFE) insulation coating (18) is formed by spirally wrapping a PTFE film around the coated insulated wire (12, 14), and heating and curing the wound PTFE film to cure and seal the outer insulation coating around the conductive coating (16). Preferred Condition: The insulated wire is cleaned and preheated to approximately 250 degrees F before passing it through the reservoir. The coated insulated wire is heated to approximately 800 degrees F to cure the conductive coating on the wire. The PTFE film wound around the coated insulated wire is cured by passing it through a heated metal compression sealer at approximately 800 degrees F. The coated insulated wire is preheated to approximately 650 degrees F before the PTFE film is spirally wound thereon. The insulated wire is passed through the reservoir at approximately 0.5 inch/sec.</p>
	СИА В.з. № 2004182511-A1 МПК A61F-002/06; B32B-031/20	Заявитель SCIMED LIFE SYSTEMS INC З. № US166842 Пр-т 11 Июнь 2002 Аналоги WO2005060875-A1	68.	<p>LAMINATION METHOD FOR FORMING A COMPOSITE IMPLANTABLE DEVICE SUCH AS A VASCULAR PROSTHESIS, COMPRISES JOINING TEXTILE AND EXPANDED POLYTETRAFLUOROETHYLENE LAYERS WITH AN ELASTOMERIC BONDING AGENT AND APPLYING HEAT AND PRESSURE.</p> <p>NOVELTY - Forming a composite textile and expanded polytetrafluoroethylene (ePTFE) implantable device, is new.</p> <p>USE - The method is useful for forming a composite textile and ePTFE implantable device such as vascular prosthesis and vascular patch (claimed).</p> <p>ADVANTAGE - The textile surface designed as tissue contacting surface promotes enhanced cellular ingrowth thus contributing to long term patency of prosthesis. The ePTFE surface used as blood contacting surface minimizes leakage and provides anti-</p>

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				thrombogenic surface. The ePTFE liner reduces the porosity of the textile tube so that the textile tube need not be coated with a hemostatic agent such as collagen. The overall wall thickness of the composite graft is thinner than an equivalent conventional textile graft. The textile covered ePTFE graft exhibits superior longitudinal strength as compared with conventional ePTFE vascular grafts. The composite device maintains high suture retention strength and reduced suture hole bleeding which is particularly beneficial when used as a dialysis access graft. The laminated composite prosthesis has improved bond strength of 15 - 35%, bond peel strength of 32 - 40 g/mm, bond uniformity and greater water impermeability than that of pr!
	СИИА В.з. № 2004172832-A1 МПК B26B-009/00; B26B-021/00; B21D-053/64; B26B-021/60	Заявитель CLIPSTONE C HAIN S S LIU Y E SONNENBERG N ZHUK A GILLETTE CO З. № US379264 Пр-т 04 Март 2003 Опубл. 09 Сентябрь 2004 Аналоги WO2004078428-A1; AU2004217970-A1; EP1601507-A1	69.	RAZOR BLADE USED IN SHAVING RAZOR COMPRISES SUBSTRATE WITH CUTTING EDGE HAVING COATING OF CHROMIUM DOPED CARBON-CONTAINING MATERIAL. A razor blade (10) comprises a substrate (12) with cutting edge defined by sharpened tip and adjacent facets (20), a coating of doped carbon-containing material (16) on the cutting edge and a coating of polytetrafluoroethylene on the carbon-containing coating. USE - In a shaving razor (claimed). ADVANTAGE - The hard carbon layer provides improved strength, corrosion resistance and shaving ability. The chromium dopant aids in the adhesion between the layers.
	СИИА В.з. № 2004171726-A1 МПК C08F-214/26; C09D-127/18	Заявитель DU PONT DE NEMOURS & CO E I З. № US444426P Пр-т 03 Февраль 2003 Опубл. 19 Август 2004 Аналоги WO2004069919-A2 EP1590405-A2	70.	STABILIZED FLUOROPOLYMER AQUEOUS DISPERSION FOR COATING APPLICATIONS, INCLUDES STABILIZER COMPRISING POLYSILOXANE POLYOXYALKYLENE COPOLYMER. A stabilized fluoropolymer aqueous dispersion includes a stabilizer comprising polysiloxane polyoxyalkylene copolymer. USE - The invention is used for coating applications. ADVANTAGE - The invention enables the dispersion to be subjected to normal handling, e.g. shipping, pumping, and vigorous stirring, without coagulation occurring.
	СИИА В.з. № 2005137308 МПК B05D-003/02; C08K-003/34; C08K-007/20; H01B-001/00; C08L-001/00	Заявитель BATE T J З. № US508780P Пр-т 03 Октябрь 2003 Опубл. 23 Июнь 2005 Аналоги WO2005035644-A1	71.	NON-STICK COATING FOR ROLLERS E.G. FUSER ROLLERS USEFUL IN PRINTING MACHINES COMPRISES FLUOROPOLYMER AND ELECTRICALLY CONDUCTIVE MICA A non-stick coating (C1) comprises fluoropolymer (a) and electrically conductive mica (b). USE - For coating a roller e.g. fuser roller useful in printing machine (claimed) e.g. high-speed digital copier; for coating a substrate of desired hardness; and in multi-coat systems
	СИИА	Заявитель	72.	BONDING OF UNSINTERED UNEXPANDED

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	3. № 2004261929-A1 МПК B32B-027/12; B32B-031/00; B65B-001/00	TEXTILES COATED INT TIPPETT S W 3. № US475525P Пр-т 03 Июнь 2003 Опубл. 30 Декабрь 2004 Аналоги WO2004108412-A1		POLYTETRAFLUOROETHYLENE FEED FILM TO POLYTETRAFLUOROETHYLENE COATED SUBSTRATE, INVOLVES CALENDERING FEED FILM IN FIRST NIP, AND DIRECTING COATED SUBSTRATE THROUGH SECOND NIP. An unsintered unexpanded polytetrafluoroethylene feed film is bonded to a flexible polytetrafluoroethylene coated substrate, by calendering the feed film in the first nip, with the calendered film remaining supported on the metal surfaced roll for transport to and through the second nip. The coated substrate is directed through the second nip for calendering with and bonding to the calendered film to produce a laminated composite. USE - For bonding of an unsintered unexpanded PTFE feed film to a flexible PTFE coated substrate. ADVANTAGE - The invention provides for excellent control of the unsintered film (21) during the lamination process, enabling production of laminated composites with a very uniform surface containing a greatly reduced number of film defects.
	СИА п. № 3372672-A МПК C23C14/12	Заявитель GENERAL ELECTRIC CO з. № US536125 пр-т 21 03 1966	73.	UV PHOTOPOLYMERISATION APPARATUS FOR COATING. Apparatus for vapour phase deposition of a polymer coating using UV light to induce polymerisation consists of a quartz tube containing a support. The support is attached to a refrigeration device. After evacuating the tube by vacuum line to a pressure of 0.1-8 mm.Hg. gaseous or liquid ethylene, 1,3-butadiene, 2,4-hexadiene, 1,5- hexadiene, MMA, hexachlorobutadiene, acrylonitrile, tetrafluoroethylene, etc. is introduced. UV light is switched on and after polymerisation cooler is turned on. The quartz tube is then unbolted and the coated object removed from the support. In a modification, support is attached to a vibrator to agitate particles to be coated.
	СИА п. № 3590776-A МПК B05C-011/12	Заявитель US SEC OF NAVY з. № US809559 пр-т 24 03 1969	74.	VACUUM FLUIDISED-BED COATING APPARATUS Deposition of plastic coating onto a work-piece is carried out in vacuum chamber. The induction heated work-piece is lowered into fluidised bed of powder to obtain coating and is then raised back into induction coil to cure the coating. During cooling the vacuum is released in the chamber to cause greater adherence of coating. Fluidised-bed may be provided by magnetic impeller or the use of mechanical vibrator and passage of inert gas through the porous container bottom, in which case the gas flow rate is kept below the gas extraction rate. Esp. for coating fluoroethylene polymers.
	СИА з. № 401749 МПК B29D-017/00; C09D-003/48;	Заявитель JONES & LAUGHLIN STEEL CORP з. № 19730401749 пр-т 28 09 1973 Аналоги	75.	ADHERENT ORGANIC COATINGS VACUUM DEPOSITED ON METALS - LOW CARBON STEEL COATED WITH ZINC, ALUMINIUM, THEN ACRYLIC OR EPOXY RESIN. The metal substrate is fed into a vacuum chamber and at least one surface wire-brushed and coated with Zn; a thin barrier layer of a metal, alloy, inorganic mass, or

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		DE2446250-A FR2245484-A GB1471977-A CA1026266-A IT1022457-B CA1050838-A		their mixt. is then directly deposited on the Zn, followed by a polymerisable organic coating of low volatility which is exposed to radiation so polymn. occurs, after which the coated substrate is brought out of the vacuum chamber. Pref. conditions are a min. of 2.5 mu Zn; min. temp. after Zn deposition of 120 degrees C.; control of the barrier layer thickness soothe morphology of the Zn surface remains unaltered; the barrier layer is Al 0.25-0.5 mu thick or SiO2 0.38-0.63 mu, or Al followed by SiO2; and one pref. organic coating is an acrylic ester; a second organic coating may also be used. The substrate may be low carbon steel. Better adhesion and corrosion resistance is achieved than similar, known materials.
	СИИ п. № 3901994-A МПК B05D-003/14; B29D-017/00; C09D-003/48; G11B-003/70; G11B-009/06; G11B-025/04	Заявитель RCA CORP з. № 439582 пр-т 04 02 1974 опубл. 26 08 1975 Аналоги NL7501237-A DE2503045-A JP50110301-A FR2259687-A GB1445546-A CA1040583-A)	76.	HARDENING POLYMER DIELECTRIC COATINGS, ESP. ON VIDEO DISCS - ESP. POLY- P-XYLENE OR POLY-P-CHLOROXYLENE COATINGS, BY GLOW DISCHARGE. A coating of a polymer hardenable by crosslinking, on a substrate, is hardened by exposure to a glow discharge. Used for metalised video discs with crosslinkable coatings. The dielectric coating is permanent allowin the discs to be used many times. The substrate is a metallised vinyl disc with a spiral groove. The claimed coating is a poly-p-xylene or poly-p-chloroxylylene. Poly-p-xylene coatings are applied by splitting di-p-xylene, forming reactive radicals as vapour, and condensing and polymerising this vapour on the surface of the substrate, to form linear (co)polymers. The thickness of the coating may be <500A degrees. This is hardened by exposure to the glow discharge. The claimed hardening process consists of (a) placing the coated substrate in a vacuum chamber, (b) evacuating the chamber of a press. of 1-10u (c) introducing a source of ions into the chamber, to press. of 50-1001 and (d) bringing about the glow discharge in the chamber so that the coating is uniformly treated, In partic. the substrate is arranged between two sepd. parallel electrodes; it may be in contact with one electrode with the coating facing the electrode.
	СИИ п. № 4013532-A МПК B05D-003/06; C08A- 112/08; C08J-000/00; C23C-015/00	Заявитель AIRCO INC з. № US554823 пр-т 03 03 1975 опубл. 22 03 1977 Аналоги BE839057-A; DE2608415-C; NL7602156-A; JP51112489-A FR2303091-A GB1495480-A	77.	VACUUM COATING CHAMBER INVOLVING LOCAL ELECTROMAGNETIC FIELD STRESSES - TO ACCELERATE COATING RATES WITH STYRENE OR PTFE. A polymeric coating is applied to an article supported between two electrodes in a vacuum chamber partially pressured with a monomeric gas, where an electrical stress field is generated between the electrodes before monomer adsorbed on the first electrode is discharged to form a coating which polymerises on the article. The process is esp. used for coating one or both faces of an article with polystyrene or PTFE. The item coated may be conductive or non-conductive. The ancillary field enhances the rate of dissipation of material from the electrode surface while allowing the vapour pressure to be maintained high enough for reasonable rapid polymn. thus enhancing coating build-up, eps. for processes involving several successive evacuation/ionisation

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		CA1044177-A IT1055462-B NL176642-B		cycles.
	США з. № 095704 МПК C08F-214/26; C09D-127/18	Заявитель GENERAL ELECTRIC CO з. № US095704 пр-т 16 11 1979 опубл. Аналоги DE3042606-A GB2063103-A FR2469218-A JP56098164-A	78.	METAL ARTICLE PROTECTION AGAINST CORROSION - BY APPLYING POROUS COATING OF CORROSION-RESISTANT METAL AND HEAT-HARDENABLE FLUORO CARBON POLYMER LAYER(S) Metal articles are protected against corrosion by (i) hot-scattering a porous corrosive material-resistant metal alloy on a surface of the article, (ii) applying at least one layer of heat-hardenable fluorocarbon polymer, (I), pref. as a powder, to cover the porous metal alloy coating completely and (iii) heating the article to harden (I) and to allow (I) to flow into- and fill the pores of the porous coating. Metal articles protected include steel reactors, stirrers, mixers, pumps, etc. The coatings are more flexible than glass coatings and do not break so easily during heat- or pressure cycles. The articles can withstand high temps. and pressures and vacuum operation. Surface defects can be determined visually or ultrasonically and repaired.
	США п. № 4421781-A МПК B05C-000/00; B05D-003/00; B05D-007/26; C23C-013/08; C23D-005/00; C25D-000/00; F26B-003/20	Заявитель REZNICK D; TRI.VALLEY GROWERS з. № US362628 пр-т 29 03 1982 опубл. 20 12 1983 Аналоги BE896289-A DE3310981-A FR2523876-A AU8312931-A ZA8302028- GB2118051-B CA1193495; IL68217-A CH662291- IT1173704-B	79.	POLYMER-COATING OR LACQUERING OF SUBSTRATE - WITH CURING UNDER VACUUM AND RECOVERY OF SOLVENT. Appts. and process are claimed in which a polymer or polymerisable polymerisable substance in a solvent which can be liquefied under vacuum is applied as a coating to a substrate. The substrate is heated, the solvent is evaporated and condensed in the vacuum chamber, and the substrate is heated again to cure the thermosetting coating. Used esp. in the lacquering of tin plate and the internal lacquering of tin plate can bodies aftermfr. The recovery of the solvent saves money and pollution. The process is economically viable for the post-fabrication lacquering of cars which gives a coating with greater integrity.
	США п. № 4529478-A МПК B01D-001/00; B21C-023/00; B29B-003/02; B29B-009/10; B29C-047/76;	Заявитель USM CORP; FARREL CORP з. № US532156 пр-т 14 09 1983 опубл. 16 07 1985 Аналоги FR2551675-A NL8402844-A	80.	REMOVING VOLATILES FROM VISCOUS POLYMERS - USING MACHINE THAT ROTATES MATERIAL IN HEATED CONCENTRIC COVER WITH SEALS FOR EFFECTIVE VACUUM. The machine which has a rotor with a number of radial processing channels; a gap remains between the rotor and concentric stationary cover and connects the channels. Each channel has an inlet, outlet and intermediate baffle; material moves from a first channel to the next through a connecting device in the cover. A Vacuum is applied to the vaporising channels via a fitting when is attached to the cover and projects round

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	B29F-003/02; C08J-011/02; B29B-013/00; B29C-047/52	SE8404591- GB2147221-B CA1237426-A IT1175732-B JP93034124-B DE3433832-C2		an outlet. Each vaporising channel has a one rib fixed to the rotor to leave a narrow gap to its adjacent wall; each rib is positioned specifically in relation to the escape space for volatiles being removed. The machine produces a highly efficient vacuum system and an extremely efficient removal of volatiles (even from high-viscosity materials). It is suitable for removing volatiles from a variety of low density thermoplastic polymers.
	США п. № 5125138-A МПК H01G-004/30; H01G-007/00; H01G-013/00; C23C-016/44; C23C-014/12; C23C-014/24; H01G-004/18; H01G-004/33	Заявитель Spectrum Control, Inc. з. № US562779 пр-т 04.01.1991 опубл.30 06 1992 Аналоги BR8502606-A; US5018048-A EP147696-B DE3484793- JP95082961-B2 JP95082962-B2	81.	THE HIGH-SPEED APPARATUS FOR FORMING CAPACITORS COMPRISES A VACUUM CHAMBER. A carrier in the vacuum chamber defines a continuous surface configured to move at a rate of from about 150 feed per minute to about 600 feed per minute during the forming operation. A metal depositing device in the vacuum chamber deposits layers of metal on the moving surface. A dielectric depositing device is in the vacuum chamber. The dielectric depositing device includes a device for atomising a radiation-curable polyfunctional acrylic monomer to form liquid droplets of the monomer. A heated surface is provided on which the atomised monomer droplets impinge and are flash vapourised. The flash-vapourised monomer on the metal layers form a monomer coating on each successive metal layer. A radiation source in the vacuum chamber is positioned for curing successive monomer coatings after each such coating has been deposited to form a polymer dielectric layer. A device controls each of the devices so that metal is deposited, a monomer coating is deposited, and the monomer coating is cured to form the polymer dielectric layer before the moving surface passes the devices again for successive metal layers, monomer coatings and curing. ADVANTAGE - Higher volume and speed capacitor mfr. (15pp/h (US5125138-A) Miniature multi-layered capacitor includes an encapsulated body contg. a conductive substrate (13), notched (14) into separate pieces, conductive layers (15) and dielectric coatings (16), separating the conductive layers. Terminal patterns (18) on the substrate define electrical joining sections ending at cut-off lines (19), spaced from the opposite and separated edge of the central capacitance region (17). Coatings taper from uniform thickness in the uniform capacitance region to zero thickness opposite the terminal portions. ADVANTAGE - Very small but practical capacitor.
	США п. № 4948485-A МПК B05B-007/22; C08F-002/52; C08J-007/18; B05D-001/08	Заявитель PLASMACARB INC з. № US274775 пр-т 23 11 1988 опубл. 14 08 1990 Аналоги WO9005612-A CA2003570-A	82.	CASCADE ARC PLASMA TORCH COATING SUBSTRATE - WITH POLYMER PLASMA POLYMERISED AT LOW TEMP. AND PRESSURE. Cascade arc plasma torch for low temp. plasma polymerisation coating comprise means for generating vacuum and a plasma reactor (1) including concentric electroconductive rings (3) sepd. by insulator rings (5) arranged between electrode connectors (13, 8) and forming a central passage (15). A voltage supply source (11) provides a voltage across the plasma reactor and means are provided for introducing an inert gas into the central passage upstream of the reactor and injecting a monomeric

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		JP4501875- EP445147-B1 DE68920590-	США	<p>gas downstream of it to achieve plasma polymerisation. USE/ADVANTAGE - Cascade arc plasma torch is used to coat surfaces with polymer obtd. by plasma polymerisation at low pressures and temps., the substrate surface being a wire, tubing, a band or filament, etc.. A high yield of deposited polymer is obtd. and a well defined localised polymer deposition is made possible. The coating operation is less disturbed by external factors such as manetic field and Faraday cage effects and is thus suitable for the inside of a car body. Also, excessive fragmentation of monomer mols. due to ionization is prevented.</p> <p>USE/ ADVANTAGE - Used to coat surfaces with polymer obtd. by plasma polymerisation at low pressures and temps., the substrate surface is wire, tubing, a band or filament, etc.. A high yield of deposited polymer is obtd. for well defined localised polymer deposition. Coating operation is less disturbed by external factors e.g. magnetic field and Faraday cage effects and used for the inside of a car body. Also, excessive fragmentation of monomer mols. due to ionisation is prevented.</p>
	США п. № 4962725 МПК С23С14/12	Заявитель LEYBOLD AG (DE) з. № 413637 Дата подачи 28 сентября 1989 опубл. 1990-10-16 Приоритет з. № 3922187 Июль 06, 1989[DE]	83.	<p>APPARATUS FOR PRODUCING METAL-FREE STRIPS ON VACUUM-COATED FILM WEBS, PARTICULARLY TO BE USED WITH CAPACITOR In a device for producing metal-free strips on vacuum-coated film webs, particularly for capacitors, including a casing 32 with a cover 30 for sealing the casing pressure-tight and a winding unit 29, including guiding and tensioning rollers 5 to 17 which are rotatably disposed between the plates 3, 4, at least one coating roller and a take-off and a take-up roller 35', 37' as well as a coating source 19 supported in the casing 32 and a preferably tubular vessel 34 for receiving a separating agent 33 to be evaporated, for example oil, which is disposed transversely to the running direction of the web and has at least one nozzle 36 for the separating agent 33 to emerge from the vessel 34 onto the film web 50 passing by the outlet nozzle 36 in direct vicinity, the vessel 34 is at least partially filled with a supply of separating agent 33 and is provided with at least one vapor outlet pipe 39 the outlet nozzle of which 36 ends into the coating chamber 45 below the surface level 46 of the supply of separating agent 33 and in direct vicinity of the film web 50 to be coated and the end of vapor outlet pipe 39 which faces away from the nozzle 36 ends in the space 40 of the vessel above the supply of separating agent 33.S</p>
	США п. № 5863608-A МПК C08F-214/26; C09D-127/18	Заявитель SHELDAHL INC з. № US506720 пр-т 10 04 1990 опубл. 26 01 1999 Аналоги WO9115610-A	84.	<p>ADHERENT, COHERENT AMORPHOUS FLUOROCARBON COATINGS - COMPRISING FLUORINATED ETHYLENIC-CYCLO:OXY:ALIPHATIC SUBSTD. ETHYLENIC COPOLYMERS APPLIED AS VACUUM-DEPOSITED INITIAL LAYER ETC.</p> <p>A method of preparing a castable amorphous fluorinated copolymer coating onto the surface of a substrate comprises the steps: (a) depositing an adherent initial film of a fluorinated copolymer (I) of thickness 1500-50000 Angstroms onto the surface; and</p>

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		EP524174-A1 EP524174-A4		(b) applying a second coating, as a coverlay on the initial coating, of an amorphous fluorinated copolymer (I) in a castable liq. state. (I) is selected from fluorinated (ethylenic-cyclo oxaliphatic subst. ethylenic copolymers of mol.wt. 230000-500000. Step (a) is carried out by vacuum deposition at a pressure of about 10 power (-5) Torr. Step (b) provides a second coating of (I) of 2000-10000 Angstroms thickness. An opt. step (c) includes a second coverlay of amorphous fluorinated (I).USE/ADVANTAGE - The highly adherent, coherent coatings are castable and can be deposited as relatively thick layers of more than 0.25mm. They are curable at room temp. or at low temps. Thin films are pin-hole free and do not require sintering. The layers are repairable.
	СИА п. № 5705232-A МПК B05D-003/12; C08J-007/04	Заявитель TEXAS INSTR INC з. № US309220 пр-т 20 09 1994 опубл. 06 01 1998	85.	APPLYING CURABLE MATERIAL, E.G. LOW-K DIELECTRIC TO HIGHLY-INTEGRATED SEMICONDUCTORS - BY SPIN COATING COMPOSITIONS ONTO WAFERS, BAKES AND CURES IN SAME VACUUM OR CONTROLLED-ATMOSPHERE UNIT TO ACHIEVE REDUCED DEFECT RATE. This method processes spin-on material in a single chamber (56). The curable material is spun, to both provide and to dry a uniform thickness. The material is then cured. Preferably, the spin-on material is a low dielectric, polymeric glass, polyimide, silicon dioxide or organic compound composition. USE - An in-situ coat, bake and cure unit for dielectric coatings used in semiconductor wafer manufacture. ADVANTAGE - Microminiaturisation increases inter-track capacitance in e.g. 16 megabit DRAM, and it becomes vital to coat with a low-k dielectric, i.e. with a dielectric constant near unity, that of a vacuum, which compares to the silica value of 3.9. The process reduces defect rate, cycle time and costs in considerably less shop space. The single chamber is equipped for optical curing with controlled atmosphere and/or vacuum. It carries out the processes of dielectric coating, optical baking and pre-etch back optical curing.
	СИА п. № 5514260-A МПК C23C-014/32; C23C-014/34; C23C-014/22; C23C-014/48; C23C-014/56; H01J- 037/32	Заявитель SAMSUNG ELECTRONICS CO LTD з. № US391601 пр-т 21 02 1995 опубл. 07 05 1996 Аналоги DE19505258-C2	86.	APPTS. FOR SIMULTANEOUS PLATING - COMPRISES FIRST CHAMBER FOR ARC ION PLATING AND HCD ION PLATING, SECOND CHAMBER FOR SPUTTERING PLATING, VACUUM PUMP AND TWO THROTTLE VALVES. The appts. for simultaneous plating comprising a first chamber (E) in which arc ion plating and hollow cathode discharge ion plating may be carried out, either concurrently or selectively, a second chamber (F) in which sputtering plating may be carried out, a vacuum pump (7) connected to both chambers and two throttle valves (4), one connected to each chamber. USE - The appts. enables simultaneous plating by ion plating, hollow cathode discharge plating and sputtering plating. ADVANTAGE - Simultaneous plating can be carried out by the different processes. The cost of the equipment is less than with known appts. where different chambers must be provided for ion plating and HCD plating. The bonding strength of the coated film is improved by the use of an ion beam source.
п	СИА п. № 6620243-B1	Заявитель NORDSON CORP	87.	ELECTROSTATIC FLUIDIZED BED POWDER COATING APPARATUS FOR E.G. IN POWDER COATING TECHNOLOGY, HAS ELECTROSTATIC

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	МПК B05C-005/02	з. № US087521 пр-т 29 05 1998 опубл. 16 09 2003	США	CHARGING DEVICE ARRANGED RELATIVE TO POWDER FLUIDIZED BED TO CHARGE POWDER. An electrostatic charging device (16) is operatively arranged relative to powder fluidized bed (14) for charging the powder (67). A vacuum pump is provided between the powder coating structure (12) and the powder accumulator (20) for controlling a cloud of powder emanating from the fluidized bed and for transferring excess powder from coating structure to powder accumulator. USE - For e.g. in powder coating technology. ADVANTAGE - Is compact. Powder color and/or powder type is changed easily. Ensures full and uniform coating.
	США п. № 6509065-B2 МПК B05D-007/24; C23C-016/505; H05H-001/00; C23C-016/513; C08F-002/01; C08F-002/52; C08F-038/00; C23C-014/12; C23C-016/448	Заявитель BATTELLE MEMORIAL INST; AFFINITO J D з. № US212781 пр-т 16 12 1998 опубл. 21 01 2003 Аналоги WO200035602-A1 EP1144131-A1 KR2001101253-A; TW467771-A JP2002532576-W	88.	MAKING A CONJUGATED POLYMER LAYER ON A SUBSTRATE IN A VACUUM ENVIRONMENT BY FLASH EVAPORATING (UN)CONJUGATED MONOMER WITH PARTICLES, passing to a glow discharge electrode and A conjugated polymer film is made on a substrate in vacuum environment by:(a) flash evaporating the (un)conjugated monomer with conjugated particles (122) in an evaporation surface (124) of a housing (116) and discharging an evaporate;(b) passing the evaporate to a glow discharge electrode (204) to create a monomer plasma; and(c) cryocondensing the plasma onto the substrate and crosslinking it. USE - For making a conjugated polymer layer with plasma enhanced cryocondensing chemical vapor deposition of a conjugated material onto a substrate in a vacuum environment. ADVANTAGE - The invention provides plasma polymerized conjugated polymer layers at a fast rate. It is insensitive to the direction of motion of the substrate because the deposited conjugated monomer layer is self-curing. The conjugation is preserved during curing and multiple layers of materials may be combined. DESCRIPTION OF DRAWING(S) - The figure shows a cross-sectional view of the apparatus for combined flash evaporation and glow discharge plasma deposition. Substrate (104) Flash evaporation housing (116) Particles (122) Evaporation surface (124) Evaporate outlet (128) Glow discharge housing (200) Evaporate inlet (202) Glow discharge electrode (204)
	США п. № МПК B05C-000/00; C08G-018/10; C08G-018/12; C08G-018/28; B05C-001/00	Заявитель 3M INNOVATIVE PROPERTIES CO з. № US608283 пр-т 30 06 2000 Аналоги WO200202244-A2 AU200163030-A EP1297043-A2 KR2003038565-A;	89.	COATING APPARATUS FOR APPLYING POLYMERIC COATING TO SUBSTRATE COMPRISES DISPERSIVE SURFACE, RECEIVING SUPPORT, CHEMICAL DISPENSER(S) AND BANK DISRUPTER A coating apparatus comprises dispersive surface (30), receiving support with a surface opposed to the dispersive surface, chemical dispenser(s) (10) and bank disrupter (70). The dispenser dispenses a polymeric precursor composition (20) onto the dispersive surface during operation. The bank disrupter is disposed in an area between the dispersive surface and receiving support. USE - The apparatus is used for applying a polymeric coating to a substrate. It is used

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		CN1440433-A	СИИА	<p>in manufacturing carpets, fabrics (e.g. waterproof fabrics), decals or flexible composites articles.</p> <p>ADVANTAGE - The apparatus can be cleaned without significant downtime. It can rapidly change chemical components to vary product properties even during the same production run. It is capable of operating at high web speeds over wide substrates, compatible with a large variety of substrates, produces smooth polymer coatings without ribbing, gels or streaks and/or final products that can exhibit desirable properties e.g. excellent adhesion and launderability. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (A) a process for applying a polymer to a substrate by forming a bank of the polymer precursor composition in which a portion of the bank is in contact with the substrate surface, disrupting the bank of polymer composition, and moving the substrate past the bank of polymer composition; (B) a clothing article comprising a fabric that has been coated by this process; and (C) a polymer coating composition comprising a mixture of dialkoxy and trialkoxy hydroxyalkylenecarbamoylalkylene-alkoxysilanes in which the molar ratio of dialkoxy/trialkoxy hydroxyalkylenecarbamoylalkylene-alkoxysilanes is 1:3-3:1.</p>
	<p>СИИА п. № 6492012-B1 МПК B05D-003/00; B32B-005/02; B32B-005/26; B32B-027/04; B32B-027/12; B32B-031/30; B32B-003/06; B32B-003/26</p>	<p>Заявитель ШАН Т; ШАН Т М з. № US496385 пр-т 02 02 2000 опубл. 10 12 2002 Аналоги WO200156710-A1 AU200139739-A EP1257366-A1</p>	90.	<p>PRODUCTION OF POLYMER-COATED POROUS PRODUCT USEFUL IN THERMOPLASTIC PROCESSING, INVOLVES COATING POROUS SUBSTRATE WITH POLYMER FILM THROUGH CONTINUOUS EXTRUSION VACUUM LAMINATION.</p> <p>NOVELTY - A polymer-coated porous product is produced by overlaying a polymeric film onto a porous substrate. The polymeric film is heated and drawn by vacuum to produce a polymer-penetrated porous substrate. USE - For producing polymer-coated porous substrates useful in thermoplastic processing, e.g. for producing waterproof, but breathable fabrics. ADVANTAGE - The product is waterproof, but breathable. Although the polymer material penetrates and adheres to the fabric material, the resultant product remain porous. Each fabric pore is smaller than a raindrop but, still, larger than a molecule of water. It thus prevents penetration of raindrops, but, allows air and water vapors to migrate through the product. The process is cost effective and utilizes inexpensive polymer materials to produce the resulting product having superior durability, greater abrasion resistance and greater tear resistance. The process represents a significant advance in technology and consumer choice. Because the polymer-coated product has a polymer coating between two layers of fabric, textile manufacturers can now manufacture waterproof/breathable materials that have a fabric exterior. Waterproof/breathable garments made of the product can have a comfortable inner fabric lining and a plethora of outer fabric choices. The invention allows fashion designers to design and to offer a whole new genre of waterproof/breathable garments. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an apparatus for producing polymer-coated porous</p>

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			СИА	substrate comprising heater and vacuum unit.
	СИА в.з. № 2003049468-A1 МИК H05H-001/00; B01J-019/08; B01J-019/12; B32B-013/12; H05F-003/00	Заявитель DOW GLOBAL TECHNOLOGIES INC; HU I; HE X з. № US219151 пр-т 16 08 2001 опубли. 15 08 2002 Аналоги WO2003017737-A2	91.	<p>CASCADE ARC PLASMA APPARATUS USEFUL IN MAKING COATING ARTICLES, HAS DIRECT CURRENT PULSED VOLTAGE POWER SOURCE CONNECTED TO CATHODE AND ANODE.</p> <p>NOVELTY - A cascade arc plasma apparatus comprises:(i) cascade arc source (40);(ii) direct current pulsed voltage power source (22) connected to a cathode and an anode;(iii) carrier gas source in communication with arc source;(iv) vacuum deposition chamber (50) in communication with arc source;(v) reactant source (29) in communication with the chamber; and(vi) substrate (32) within the chamber to receive a plasma polymerized material. USE - The inventive device is useful in making coating articles with enhanced barrier to gases such as oxygen, carbon dioxide and nitrogen; and enhanced barrier to vapors such as water and organic compounds. It is also useful in preparing abrasion and scratch resistant coatings. The end use products includes coated high density polyethylene bottles for barrier packaging, coated polycarbonate for scratch and abrasion resistant window glazings for architectural and automotive applications.</p> <p>ADVANTAGE - The inventive apparatus produces plasma easily and without contamination through the incorporation of the DC pulsed power source. It produces more uniform plasma coverage over a large area of the substrate, and can be controlled at a lower temperature so that the substrates (such as polycarbonate) can be plasma coated without degradation. It is useful in making coating articles with enhanced barrier to gases such as oxygen, carbon dioxide and nitrogen; and enhanced barrier to vapors such as water and organic compounds.DETAILED DESCRIPTION - A cascade arc plasma apparatus comprises: (i) a cascade arc source ; (ii) a direct current (DC) pulsed voltage power source; (iii) a carrier gas source; (iv) a vacuum deposition chamber; (v) a reactant source; (vi) a substrate within the chamber to receive a plasma polymerized material. The cascade arc source has aligned concentric metallic discs (12) separated by insulator rings (14). The discs and the rings contain a central aperture defining a conduit (16) having an inlet (16a) and an outlet (16b) for a carrier gas. The metallic discs float electrically between a cathode (18) proximate to the inlet of the conduit and an anode (12b) proximate to the outlet of the conduit. The DC pulsed voltage power source is connected to the cathode and the anode. The carrier gas source is in communication with the inlet of the cascade arc source. The chamber is in communication with the outlet of the cascade arc source. It has a vacuum pump (34), and inlet(s) for the introduction of monomer gas and optionally oxygen. The reactant source is in communication with the inlet of the chamber. INDEPENDENT CLAIMS are also included for: (1) A method of coating a substrate using cascade arc plasma, comprising applying a DC pulse to generate a plasma in the cascade arc source, where the DC pulse is connected to the cathode and the anode; concomitantly flowing the</p>

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				carrier gas through the conduit to form a cascade arc jet in the chamber in communication with the outlet side of the cascade arc source; contacting the cascade arc jet with the reactant and optionally an ancillary reactive gas (30) to form the plasma polymerized material; and depositing the plasma polymerized material onto the substrate within the chamber; and (2) A composition, comprising a polyolefinic substrate coated with a polyorganic silicon layer in the absence of a tie layer for the substrate and the polyorganosilicon layer. The coated substrate has a cross-hatch peel-off strength of 4-5.
	СИА в.з. № 2003148030-A1 МИК C08F-214/26; C09D-127/18	Заявитель UNIV NORTH CAROLINA STATE; VERNON P M; SAKHRANI V; CUOMO J J з. № US297676P пр-т 12 06 2001 опубл. 07 08 2003 Аналоги WO2002100928-A1	92.	ARTICLE OF MANUFACTURE, E.G. PHARMACEUTICAL CLOSURE FOR DRUG VIAL, INCLUDES PLASMA POLYMERIC COATING DEPOSITED ON ELASTOMERIC SUBSTRATE AND COMPRISED CROSSLINKED AMORPHOUS POLYMER. NOVELTY - An article of manufacture comprises an elastomeric substrate (e.g. stopper) and a plasma polymeric coating deposited on a portion of the substrate. The polymeric coating comprises a crosslinked amorphous polymer. USE - The article of manufacture is used as, e.g. pharmaceutical closure for drug vial; gasket; vacuum seal having closure members and sealing member; pharmaceutical delivery device having drug container, valve and stopper; and vial for storing medicament (claimed). ADVANTAGE - The polymeric coating is a low friction barrier coating which provides adequate lubricity to the substrate and minimizes potential adverse effects to various substrate properties. It enhances the properties of the substrate by minimizing the outgassing or elution of potential contaminants from the substrate. It also protects the substrate from adverse agents in the application environment (e.g. corrosive gases or fluids), minimizes the permeability of the substrate to gases undesirable to the sealed environment and/or minimizes loss of volatile components from container. DETAILED DESCRIPTION - An article of manufacture comprises an elastomeric substrate and a plasma polymeric coating deposited on a portion of the substrate. The polymeric coating comprises a crosslinked amorphous polymer of formula $M1_xC_yH_zO_aN_b$ or $M2_cCdHeOfNg$. M1 = A or silicon; M2 = A; A = Ti, Ta, Ge, B, Zr, Al, Hf or Y; x, c = 0-1; y, d = 0-12; z, e = 0-28; a, f = 0-4; b, g = 0-4. At least one of M1, M2 and C must be present and at least one of C, H, O or N must be present in the polymeric coating. M1 and H, or M2 and H may not be exclusively present.
	СИА в. 3. № 2003165689-A1 МИК B05B-000/00; B32B-027/06	Заявитель DU PONT DE NEMOURS & CO E I; MILLER E A; RAYMOND A W; ROMANO E C; SCHMECKPEPER M R; VAN RYPER R G.	93.	SPRAY COATED ARTICLE, I.E. PLASMA ETCHING CHAMBER FOR SEMICONDUCTOR APPLICATIONS, IS SPRAY COATED WITH NON-MELTING POLYMERS. A spray coated article is spray coated with non-melting polymer(s). USE - Used for spray coated article i.e. plasma etching chamber for semiconductor applications.

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		з. № US340155P пр-т 14 12 2001 опубл. 04 09 2003 Аналог WO2003051521-A2		ADVANTAGE - Spray coating is carried out with non-melttable polymers to provide the resistance and high material purity of non-melttable polymer. The polyimide has high temperature resistance, high toughness and hardness, high thermostability, very good dimensional stability, very good wear performance and high radiation resistance, high flame retardation, and low outgassing in vacuum.
	США з. № US359952P МПК B05D-007/24	Заявитель MOLTECH CORP з. № US359952P пр-т 26 02 2002 Аналог WO2003072273-A1	94.	FORMING POLYMER COATING ON SUBSTRATE SURFACE IN VACUUM CHAMBER FOR MAKING ANODE FOR ELECTROCHEMICAL CELL OR BATTERY, BY HEATING LIQUID MONOMER BELOW THERMAL POLYMERIZATION TEMPERATURE, CONDENSING VAPOR, AND POLYMERIZING MONOMER LAYER. NOVELTY - Forming polymer coating on substrate surface in vacuum chamber evacuated to less than 10-2 Torr comprises heating liquid monomer below thermal polymerization temperature to form vapor, allowing vapor to flow to substrate surface, condensing vapor on substrate surface to deposit monomer layer on substrate surface, and polymerizing monomer layer to form coating. USE - For forming polymer coating on substrate surface in vacuum chamber useful in making an anode used in electrochemical cell or battery. ADVANTAGE - The invention provides very thin, pinhole-free polymer coatings. It is cost effective and simpler solvent-free method.
	США В.з.№ 2006008668-A1 МПК B32B-015/00; B32B-015/08	Заявитель ТНОМАЕ К J з. № US889594 пр-т 12 Июль 2004 опубл 12 Январь 2006	95.	BLACK, CHROME-FREE, MULTILAYER, CORROSION-RESISTANT FINISH FOR METAL SUBSTRATE, COMPRISES ZINC-IRON SUBSTRATE LAYER ELECTROPLATED TO SELECT SUBSTRATE. AB NOVELTY - A black, chrome-free, multilayer, corrosion-resistant finish comprises zinc-iron substrate layer electroplated to a select substrate. The zinc-iron substrate layer is electroplated to the select substrate from a select, non-cyanide, alkaline-based electroplating process. USE - The corrosion-resistant finish is applied to a metal substrate by electroplating a zinc-iron substrate layer upon the metal substrate via a select non-cyanide, alkaline-based electroplating process thus forming a zinc-iron-enveloped substrate; bathing the zinc-iron-enveloped substrate in an ortho-phosphoric acid bath; forming a phosphate crystal conversion layer upon the zinc-iron-enveloped substrate, where the phosphate crystal conversion layer forms a zinc-iron-phosphate crystal-enveloped substrate; and coating the zinc-iron-phosphate-crystal-enveloped substrate with a select sealer sealer coating layer (claimed). ADVANTAGE - The invented black, chrome-free multilayer corrosion-resistant finish Preferred Component: The first select layer comprises PTFE and a resin polymer binder for aiding fluorocarbon sealer coating layer adhesion to the zinc-iron

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				phosphate-crystal substrate and to promote corrosion resistance.
	СИПА В.з.№ 2005048218-A1 МПК B05D-001/08	Заявитель WEIDMAN L G з. № US650973 пр-т 29 Август 2003 опубл 03 Март 2005	96.	<p>APPLICATION OF NON-POLAR POLYMER COATING TO SUBSTRATE BY GENERATING HIGH TEMPERATURE THERMAL SPRAY OF POWDER, AND INTRODUCING INTO THE THERMAL SPRAY GAS FOR DISPLACING OR REACTING WITH OXYGEN IN THE THERMAL SPRAY.</p> <p>NOVELTY - Corrosion resistant non-polar polymer coating is applied to a substrate by generating high temperature thermal spray of powder for spraying the powder onto a substrate, introducing into the thermal spray at least one gas for displacing or reacting with oxygen in the thermal spray and preserving the non-polar character of the powder during spraying.</p> <p>USE - For applying corrosion resistant non-polar polymer coating to a substrate, e.g. fuel container or hull of marine vessel (claimed).</p> <p>ADVANTAGE - The inventive method uses coating that is low to maintain, wear resistant, non-polluting, abrasion resistant, economical and has low surface energy. The coating composition comprises the powder made of 45-65 wt.% Indomer, 15-20 wt.% polytetrafluoroethylene (PTFE) thermoplastic, 10-30 wt.% biodegradable antifoulant, 10-30 wt.% antifoulant copper/nickel silver clad mica flakes, and 2-4 wt.% biocide antifoulant.</p>
	СИПА з. № US2004161613-A1 МПК C08F-214/26; C09D-127/18	Заявитель ZHAO L NEON K G KANG E з. № US367180 пр-т 13 Февраль 2003 опубл 19 Август 2004	97.	<p>ENHANCING OF STABILITY OF ELECTROACTIVE POLYMER, REDOX ACTIVE MATERIAL, OR COMPOSITE COMPRISING ELECTROACTIVE POLYMER AND REDOX ACTIVE MATERIAL, INVOLVES DEPOSITING A FLUOROPOLYMER COATING BY RADIO FREQUENCY SPUTTERING.</p> <p>The stability of an electroactive polymer, a redox active material, or a composite comprising an electroactive polymer and a redox active material is enhanced by depositing a fluoropolymer coating by radio frequency sputtering on the electroactive polymer, the redox active material, or the composite.</p> <p>USE - For enhancing of stability of electroactive polymer (e.g. substituted polyaniline, polypyrrole, polythiophene, polyacetylene, poly(para-phenylene), poly(phenylene vinylene), or their derivatives), redox active material (e.g. viologen or benzyl viologen or vinyl benzyl viologen), or composite comprising electroactive polymer and redox active material (claimed).</p> <p>ADVANTAGE - The method provides an electroactive polymer displays electrical stability when immersed in an aqueous medium, oxidation resistance when contacted with an oxidative atmosphere, and electrical stability when immersed in an aqueous medium (claimed). The fluoropolymer is a perfluorinated polymer, preferably fluorinated ethylene propylene copolymer or polytetrafluoroethylene.</p>

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	США з. № 2004163740-A1 МПК B05D-003/02; B05D-007/14; B64C-001/00;	Заявитель BOEING CO з. № US374700 пр-т 25 Февраль 2003 опубл 26 Август 2004 Аналоги FR2851580-A1	США 98.	<p>COATING A FERROUS ALLOY AIRCRAFT COMPONENT COMPRISES SUBJECTING IT TO A VEIL PRETREATMENT, COATING IT WITH A HARDENABLE ORGANIC COATING MATERIAL AND SIMULTANEOUSLY HEAT-TREATING THE COMPONENT AND HARDENING THE COATING. Coating an aircraft structural component made of ferrous alloy comprises subjecting the component to a veil pretreatment (term not defined), coating the component with a hardenable organic coating material, and simultaneously heat-treating the component and hardening the coating.</p> <p>USE - For coating aircraft structural components, especially fixings, couplings, joints, supports, gear wheels, wind braces and mechanical structures attached thereto.</p> <p>ADVANTAGE - The coated component has good corrosion resistance.</p> <p>DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:</p> <p>(1) improving the anticorrosion protection of a ferrous alloy substrate by applying a veil pretreatment to the substrate without subsequent chromate sealing and applying a hardenable organic coating material having a nonvolatile component that can be hardened at a predetermined heat treatment temperature of the ferrous alloy;</p> <p>(2) aircraft structural component made of ferrous alloy comprising a ferrous alloy precursor having a predetermined heat treatment temperature; a veil as a pretreatment without subsequent chromate sealing; and a hardenable organic coating consisting of a material having a nonvolatile component that can be hardened at the predetermined heat treatment temperature of the ferrous alloy, where the precursor and the coating are heat treated simultaneously.</p> <p>TF TECHNOLOGY FOCUS - METALLURGY - Preferred Process: The alloy is stainless steel suitable for heat treatment and precipitation hardening, especially A-286. Heat treatment is effected at 177-204degreesC for 4-5 hours. The veil pretreatment comprises applying a rapid electrolyte coating of cadmium or zinc-nickel alloy with a thickness of 5.08-10.16 mum. The coating is applied by dipping, spraying, brushing or fluidized-bed coating. The component is tempered before the veil pretreatment. The process includes an austenization or normalization step. The coating material comprises a phenolic resin, a plasticizer and aluminum powder or strontium chromate. The coating material comprises polytetrafluoroethylene. The coating material comprises a vaporizable solution consisting of (wt.%): ethanol (30), toluene (7), methyl ethyl ketone (45), aluminum powder (2) and strontium chromate (2). The coating is dried at 82-104degreesC for 2 minutes. The coating thickness is 7.62-12.7 mum.</p>
	США В.з. № 6835415-B2 МПК C23C-016/00	Заявитель UNIV CALIFORNIA EUV LLC (з. № US338266	99.	FABRICATION OF WAFER SPACING MASK INVOLVES DEPOSITING MATERIAL HAVING MODULUS OF RIGIDITY THAT IS LESS THAN THAT OF PARTICLE IN THE INTERFACE BETWEEN COMPLIANT LAYER AND WORKPIECE, IN OVER SUPPORT SURFACE OF SUPPORT MEMBER.

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		пр-т 07 Январь 2003 опубл 28 Декабрь 2004	США	<p>A wafer spacing mask is fabricated by depositing a material in over a support surface of a support member in a workpiece support chuck to form the wafer spacing mask. The material comprises modulus of rigidity that is less than that of a particle (110) in the interface between the compliant layer (100) and workpiece.</p> <p>USE - For fabricating a wafer spacing mask.</p> <p>ADVANTAGE - The invention reduces the effect of the particle on surface deformation once it becomes entrapped, thus allowing smaller spacing between the chuck and workpiece.</p> <p>Preferred Material: The material is stainless steel, conductors, insulators, or semiconductors.</p> <p>TECHNOLOGY FOCUS - POLYMERS - Preferred Material: The material comprises a polymer, preferably paralene or polytetrafluoroethylene.</p>
	США US2035-H МПК B05D-001/02	Заявитель US SEC OF AIR FORCE з. № US556928 пр-т 21 Апрель 2000 опубл 02 Июль 2002	100.	<p>APPLICATION OF CORROSION RESISTANT COATING COMPRISES HIGH TEMPERATURE THERMAL SPRAYING OF NON-POLAR POLYMER POWDER. A method for applying a corrosion resistant non-polar polymer coating to a substrate comprises:</p> <p>(a) providing a source of non-polar polymer powder;</p> <p>(b) generating a high temperature thermal spray of powder;</p> <p>(c) introducing at least one gas to the thermal spray for displacing or reacting with oxygen in the spray and preserving the non-polar character of the powder during spraying; and</p> <p>(d) applying powder as a coating by thermal spraying.</p> <p>USE - As corrosion resistant coatings for metallic or non-metallic substrates.</p> <p>ADVANTAGE - The use of non-polar materials prevents water and dissolved ions from absorbing in, percolating through or deteriorating the coating and coating/substrate interface. The method also eliminates voids in the sprayed coating due to the momentum of impact of the sprayed particles.</p> <p>DESCRIPTION OF DRAWING(S) - The drawing shows a sectional view of the undercutting of polar polymer coating by water absorption and migration.</p> <p>polar coating (11)</p> <p>substrate (15)</p> <p>separation of coating (17)</p> <p>water (13)</p> <p>TF TECHNOLOGY FOCUS - POLYMERS - Preferred Method: The method for applying a corrosion resistant non-polar polymer coating to a substrate preferably comprises spraying a layer of metal fibers or particles to the substrate prior to application of the polymer coating. The spraying of metal fibers or particles comprises a thermal spraying process. The high temperature thermal spray of powder is generated using a thermal spray gun. The spraying is performed at a velocity of 10-900 preferably 700 mph. The method preferably comprises cleaning the surface of the</p>

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				substrate and roughening to a roughness of 0.002 inch average before applying the polymer coating. Preferred Composition: The polymer powder is 1-250 microns in size. The non-polar polymer powder preferably comprises a thermoplastic or a thermoset type polymer. The thermoplastic preferably comprises polyethylene (PE), ultra-high molecular weight PE, high density PE, polypropylene, nylon, polytetrafluoroethylene, polystyrene, polyester, acrylic, polymethylmethacrylate, acrylonitrile-butadiene-styrene, polyvinyl chloride, polybutylene, polycarbonate, polyaramid, polysulfone, polyimide, tar, wax, latex, polyurethane, polyvinylidene chloride, cellulose acetate, phenolics, nitrophenolics, polyetheretherketones or phenol-formaldehyde. The thermoset preferably comprises polyester, epoxy, acrylic, vinyl ester, polyurethane, phenolic, styrene-butadiene, silicone, polyimide, polyurea, polysulfone or nitrophenolics.
	СИИ В.з. № 2003219605-A1 МПК B32B-018/00; B32B-027/06; B32B-027/28; C04B-035/00	Заявитель MOLIAN P A WOMACK M AE UNIV IOWA STATE RES FOUND INC з. № US367338P пр-т 14 Февраль 2002 Аналоги WO2003068503-A1; AU2003219660-A1	101.	NANOCOMPOSITE USED AS WEAR-RESISTANT COATING MATERIAL FOR, E.G. WORKPLACE TOOL SUCH AS CUTTING TOOLS AND MICROELECTROMECHANICAL DEVICE SUCH AS SENSORS, INCLUDES FLUORINATED POLYMER INCLUDING POLYTETRAFLUOROETHYLENE. NOVELTY - Nanocomposite comprises a first layer of material with a hardness exceeding 30 GPa, and a second layer of a fluorinated polymer. USE - The composite is used as a wear-resistant coating material for a substrate. In particular it is used in a workplace tool such as cutting tools and dies, or a microelectromechanical device such as sensors, actuator, valves, gear trains, turbines, nozzles, membranes, and pumps (all claimed). ADVANTAGE - The composite is hard, has a low coefficient of friction and is ultrathin, so as not to change the dimensions of the components. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of preparing wear-resistant coating materials comprising ablating a material with a laser beam, depositing the material on a substrate, ablating a fluorinated polymer with a laser beam, depositing the fluorinated polymer on the substrate, and repeating the steps until the desired thickness is reached.
	СИИ В.з. № 2003209610-A1 МПК B05D-000/00; B05B-015/00; B05B-007/20;	Заявитель DU PONT DE NEMOURS & CO E I з. № US340420P пр-т 14 Декабрь 2001 Аналоги WO2003051528-A2; AU2002365102-A1; EP1450965-A2; KR2004061034-A; JP2005512774-W;	102.	SPRAY COATING HAVING NON-MELTING POLYMERS ON SUBSTRATE INVOLVES SPRAYING HIGH VELOCITY OXYGEN FUEL STREAM CONTAINING NON-MELTING POLYMERS FROM ELONGATED NOZZLE AND CIRCULATING COOLING FLUID AROUND THE NOZZLE BARREL. NOVELTY - Spray coating (320) having non-melting polymer(s) on a substrate (325) comprises: (i) generating a high velocity oxygen fuel (HVOF); (ii) spraying an HVOF stream containing non-melting polymer(s) from an elongated nozzle (300) downstream from and in flow communication with the HVOF; and (iii) circulating a cooling fluid externally around the barrel of the elongated nozzle.

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		CN1604822-A		<p>USE - Used for spray coating having non-melting polymers on a substrate. It can also be used on ceramics as well as metals to protect the spray-coated ceramics from a corrosive environment.</p> <p>ADVANTAGE - Provides the resistance and high material purity of the non-meltable polymer. The coatings also extend the life the substrate.</p>
	<p>СИА В.з. № 2003049485-A1 МПК B32B-015/08</p>	<p>Заявитель BRUPBACHER J M (MOSSER M F VOGT S E з. № US948242 пр-т 06 Сентябрь 2001 опубл 13 Март 2003</p>	103.	<p>CORROSION RESISTANT COATING FOR METAL SUBSTRATE COMPRISES POLYMER LAYER OVERLAYING METALLIC LAYER AND COMPRISING POLYMER(S).</p> <p>A corrosion resistant coating for a metal substrate comprises: (i) a thermally sprayed metallic layer comprising a nickel-based alloy or stainless steel with a thickness of at least 0.125 mm; and (ii) a polymer layer overlaying the metallic layer with a thickness of at least 0.5 mm. The polymer layer comprises one or more polymers.</p> <p>USE - For metal substrate (claimed).</p> <p>ADVANTAGE - The corrosion resistant coating provides long-term corrosion resistance without delaminating or de-bonding under the harsh conditions encountered in the industrial chemical process industry. It has an efficacy that does not depend on the manner in which they are applied to the substrate, so the use of specialized equipment or tightly controlled conditions is not necessary to achieve the desired corrosion resistance.</p>
	<p>СИА з. № US2003004303-A1 МПК C08G-073/24; C09D-127/04;</p>	<p>Заявитель SURFACE ENG LTD з. № US127795 дата подачи 23 Апрель 2002 пр-т GB015949 29 Июнь 2001 опубл 02 Январь 200 Аналоги GB2377658-B</p>	104.	<p>COATING MATERIAL FOR SINTERED COATING, COMPRISES PRESET AMOUNT OF POLYVINYLIDENE FLUORIDE, ETHYLENE CHLOROTRIFLUOROETHYLENE COPOLYMER, FLUOROETHYLENE POLYPROPYLENE AND BALANCE OF POLYTETRAFLUOROETHYLENE.</p> <p>A coating material comprises polyvinylidene fluoride (in vol%) (0.1-49), ethylene chlorotrifluoroethylene copolymer (0.1-49), fluoroethylene polypropylene (0.1-49) and balance of polytetrafluoroethylene.</p> <p>USE - For sprayed and sintered coatings, and sintered claddings (both claimed).</p> <p>ADVANTAGE - The coating material provides non-greasy sintered coatings with excellent corrosion resistance to organic solvents and mineral acids.</p> <p>DETAILED DESCRIPTION - INDEPENDENT CLAIMS is are also included for the following: (1) sprayed and sintered coatings of the material; and (2) sintered cladding of the material using inert fillers e.g. silicon dioxide or metallic powders. TECHNOLOGY FOCUS - POLYMERS - Preferred Coating: The sprayed and sintered coating of the material is applied as a single layer or multilayer coating system, using dip coating techniques or brushing or troweling techniques.</p>
	<p>СИА П. № 6444595-B1</p>	<p>Заявитель CREARE INC</p>	105.	<p>COVER FOR INHIBITING CORROSION OF METALLIC MATERIAL, HAS LIQUID PERMEABLE LAYER AND LIQUID IMPERMEABLE LAYER WITH</p>

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	<p>МПК B32B-005/26; B32B-027/12</p>	<p>З. № US557845 Пр-т 26 Апрель 2000 Опубл. 03 Сентябрь 2002</p>	<p>США</p>	<p>MOISTURE ABSORBING LAYER IN BETWEEN, AND VAPOR CORROSION INHIBITOR REGION. Cover, has liquid permeable layer and liquid impermeable layer with moisture absorbing layer in between, and vapor corrosion inhibitor region. USE - Used for inhibiting corrosion of metallic material used in container ships, deck-mounted guns on naval ships, construction equipment, stored construction materials, air conditioning units and barbecue grills, and pouches fashioned to store munitions, tools, hand guns, telephones and other electronic devices. ADVANTAGE - The cover has intermediate liquid impermeable layer which prevents migration of liquid moisture stored in moisture absorbing layers. The cover effectively inhibits corrosion of metallic materials, and can be made to any size and shape to protect an object having any size and surface profile. DETAILED DESCRIPTION - The cover (200) has a liquid permeable layer (202) made of non-woven, woven or knitted material and a liquid impermeable layer (204), with a moisture absorbing layer (206), in between. The layer (206) contains a superabsorbent material adapted to absorb and store moisture. A vapor corrosion inhibitor region containing vapor corrosion inhibitor is located within or adjacent to the layer(s)</p>
	<p>США П. № 6342272-B1 МПК C23C-004/04</p>	<p>Заявитель US SEC OF AIR FORCE З. № US556929 Пр-т 21 Апрель 2000 Опубл. 29 Январь 2002</p>	<p>106.</p>	<p>APPLICATION OF MULTI-LAYER CORROSION RESISTANT POLYMER COMPOSITE COATING TO SUBSTRATE E.G., METAL INVOLVES SPRAYING FIRST COATING OF POLYMER POWDER WITH PARTICLES, BEFORE APPLYING SECOND COATING OF POLYMER POWDER ONTO FIRST COATING. A multi-layer corrosion resistant polymer composite coating is applied to a substrate by applying a first high temperature thermal spray of a first polymer powder onto a substrate to provide a first coating. The first coating is then sprayed with particles before a second high temperature thermal spray of a second polymer powder is applied onto the first coating. USE - For applying a multi-layer corrosion resistant polymer composite coating to a substrate, particularly metallic or non-metallic substrates. ADVANTAGE - The method provides low-cost, multi-layer polymer coatings having improved corrosion resistance, adjustable colors, high toughness, and high resistance against undercutting corrosion or delamination from the substrate.</p>
	<p>США П. № 5478414 МПК C23C-022/37; C25D-007/08; C25D-011/08</p>	<p>Заявитель ALUMINUM CO OF AMERICA З. № US830021 Пр-т 31 Январь 1992 Опубл. 31 Январь 1992</p>	<p>107.</p>	<p>PREPN. OF COATED, HIGHLY REFLECTIVE ALUMINIUM@ PROFILE - COMPRISES TREATING ALUMINIUM@ ALLOY SHEET WITH A CHROME CONVERSION COATING FOLLOWED BY A COATING OF FLUORO-POLYMER. Coating at least one surface of an aluminium alloy sheet with a conversion coating and a fluoropolymer coating comprises: (i) providing a bright rolled aluminium alloy sheet</p>

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			СИИА	<p>having at least 85 % D/I (distinctness of the reflected image) and 2 diffuseness less than 1.00 ; (ii) chrome conversion coating a cleaned surface of the sheet, to generate on the surface a tightly adherent film of a metal cpd. in the range 3-20 mg/ft² and a thickness less than 4000, in a conversion coating bath at 60-100F ; (iii) rinsing the coated surface and drying, to leave a dry reflective surface; and (iv) contacting the dry surface with a fluoropolymer and curing the fluoropolymer, so as to form a sheet coated with a conversion coating and a fluoropolymer on at least one surface which maintains at least 80 % D/I and which is suitable to being shaped into a profile having at least one radius which is less than 10 mm without debonding the cured fluoropolymer from the conversion coating.</p> <p>Also claimed are the following: (a) a process for converting an aluminium alloy sheet from 0.25 mm to 1.25mm thick into a decorative sheet, protected with a conversion coating and a cured fluoropolymer coating, the protected sheet having a surface substantially free of degradation due to environmental exposure; and (b) a process for producing a decorative laminate of shaped reflective Al strip having a D/I of at least 80%, the strip being protected with a conversion coating, organic polymer coating and a coating of an organic thermoplastic synthetic resinous strip adhesively laminated to organic polymer.</p> <p>Pref. the fluoropolymer is a thermally curable fluorocopolymer which comprises 40-60 mol % fluoroolefin units, 5-45 mol % alkyl vinyl ether units, and 3-15 mol % hydroxyalkyl vinyl ether units. The polymer has an inherent viscosity of 0.05-2.0 dl/g in THF at 30C.</p> <p>USE - The process is used to form decorative sheets (claimed). The highly reflective strip may be substituted for polished stainless steel and/or bi-metal. The aluminium trim is used in automobiles, trucks, boats and household and industrial appliances.</p>
	<p>СИИА П. № 5389229 МПК B32B-009/00; B66C-013/48; B66C-021/00</p>	<p>Заявитель ISHIKAWAJIMA HARIMA HEAVY IND З. № US077665 Пр-т 18 Июнь 1993 Опубл. 03 Сентябрь 1996 Аналоги JP8225293-A</p>	108.	<p>PRE-STABILISED PARTICULATE MATTER FOR PLATING PROCESSES - COMPRISES A POWDER WHICH IS DISPERSED AND ADDED TO A PLATING BATH FOR INCORPORATION INTO A METAL COATING ON A SUBSTRATE. SURFACE TECHNOLOGY CORP (SURF-Non-standard)</p> <p>The process for the metallisation of an object, to provide on the surface a metal coating with finely divided particulate matter dispersed in it, comprises contacting the surface of the object with a plating compsn. and dispersed insoluble particulate matter. The particulate matter is derived (in)directly from a prestabilised compsn. which has limited fluidity for the particulate matter.</p> <p>Metallisation is pref. an electroless or electrolytic metal deposition process. Lubricating particles, pref. PTFE, or wear-resistant particles are used as preferred particulate matter.</p> <p>USE - The process is used to deposit wear-resistant (claimed) or corrosion-resistant coatings, or coating to enhance appearance or lubrication (claimed), by electrolytic and</p>

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				electroless techniques (both techniques claimed). ADVANTAGE - A pre-stabilised form of the particulate matter can be incorporated directly or indirectly into the plating compsn. without any losses in subsequent performance. The prestabilised form has an infinite shelf life without agglomeration. The use of a powder devoid of liq. minimises shipping costs and eliminates ageing effects associated with liq. dispersions.
	США П. № 5218031 МПК C08J-007/04; C08K-005/02; C08L-027/12	Заявитель MAN GILL CHEM CO З. № US712937 Пр-т 10 Июнь 1991 Опубл. 08 Июнь 1993	109.	COATING COMPSN. - COMPRISES WATER-DISPERSIBLE OR EMULSIFIABLE THERMOSETTING RESIN, SOLID PTFE PARTICLES, FLUOROCARBON SURFACTANT AND ORGANIC PHOSPHATE ESTER Aq. coating compsn. (I) comprises: (A) at least one water-dispersible or emulsifiable film-forming thermosetting resin; (B) 0.1-8 wt.%, based on wt. of (A) of solid polytetrafluoroethylene (PTFE) particles; (C) 0.01-5 wt.%, based on wt. of (A) of at least one fluorocarbon surfactant of formula. $F_3C(CF_2)_mCH_2CH_2O(CH_2CH_2O)_nH$. m = 5-9; and n = 7-13; and (D) organic phosphate ester comprising the prod. of the reaction of a copolymer of allyl alcohol and a styrene; and epoxy aryl ether; and phosphoric acid. Also claimed are: further aq. coating compsns.; processes for coating substrates with an adherent coating; and coated metal substrates.
	США П. № 5081171 МПК B05D-003/00; C08F-114/26;	Заявитель NICHELS ENG INDIANA NIXON C R З. № US311150 Пр-т 14 Февраль 1989 Опубл. 14 Январь 1992 Аналоги CA2003893-A; US5081171-A	110.	SEALING PAINTED OR METAL SURFACES - BY TREATING WITH POSITIVELY CHARGED CLEANING COMPSN. THEN WITH NEGATIVELY CHARGED PTFE PROTECTIVE COMPSN. Protecting a metal surface, painted surface, or gel-coated fibreglass surface comprises (i) cleaning the surface (pref. using a novel cleaning compsn.) and imparting a positive charge to it; and then (ii) applying a novel protective compsn. comprising negatively-charged PTFE resin particles. The cleaning compsn. and protective compsn. are a87. Iso claimed per se. The claimed cleaning compsn. comprises a cleaning agent (pref. an org. acid) and a cationic surfactant which imparts a positive charge to the surface. The claimed protective compsn. is pref. in the form of a negatively-charged hydrophobic PTFE resin colloid in an aq. soln., opt. also contg. a no. of other specified additives.
	США П. № 3785854-A МПК C23C-009/02; C23F-007/08; C23F-017/00	Заявитель OFFICE NATIONAL D'ETUDES (ONER) ALLOY SURFACES CO INC З. № US752855 Пр-т 21 Декабрь 1976 Опубл. 15 Январь 1974 Аналоги US3785854-A; FR2185035-A; GB1437267-A;	111.	PROTECTIVE PTFE - CONTG COATINGS - FOR METAL PARTS. Protective coating bath for metal parts (esp. based on iron e.g. aluminised steel sheet) comprises an aq. soln of chromic acid, phosphoric acid and Mg-salts of these acids; the soln contg. dispersed PTFE particles having size below 1 mu. Concn. of the Mg is 0.4-1.7 mol/l. of the chromate ions 0.2-1 mol/l, of the phosphate ions 0.7-4 mol/l; and of the PTFE 2.0-14 g/l. Coatings are applied to substrate and heated so as to become water-insoluble when they give superior protection e.g. on exposure to warm marine environment.

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	США П. № 3716348-A МПК B44D-001/16	Заявитель PERKINS GR З. № US670439 Пр-т 25 Сентябрь 1967 Опубл. 01 Июнь 1970	112.	ABRASION RESISTANT, SELF LUBRICATING COATINGS - OF FUSED NICKEL PLATE AND PTFE. Coating is produced on ferrous or aluminium based materials by electroless plating with Ni or Ni/2-10% P alloy to 0.0001-0.005 in. thickness, applying a 0.0001-0.2 in. thick layer of PTFE, and heat treating at 350-820 degrees F for 20 mins - 2 hrs. to fuse the PTFE, and sinter the coating to the substrate. The coating is non-peelable, hard (about 60 Rc) and shows a very low coefficient of friction. DC A32 (Polymer fabrication (moulding, extrusion, forming, laminating, spinning)); A14 (Other substituted mono-olefins, PVC, PTFE); M14 (Other chemical surface treatments); P78 (Decorative art)
	США П. № 3679618-A МПК C08F-029/50; C08G-039/08; C08L-027/12;	Заявитель DU PONT DE NEMOURS & CO E I З. № US864552 Пр-т 07 Октябрь 1969 Опубл. Аналоги BE786718-A; NL7210199-A; FR2193093-A; GB1382512-A; CA1005938-A; JP80030032-B; DE2236270-B	113.	ELECTROCOATING OF METAL ARTICLES - USING AQ DISPERSION OF PTFE AND FILM-FORMING POLYMER. Aq. Dispersion of roe electrocoating metal articles, having a pH of 5-10, pref. 7-8.5 and comprising water, 2-35, pref. 5-15 wt % uniformly dispersed film-forming polymer (I) and uniformly dispersed PTFE particles. I consists of (II) 95-50 wt % of a neutralised carboxylic acid polymer having an acid no. of 6-25 and mol. wt. of 1000 - 20,000 and is selected from acrylic polymer, epoxy ester polymer and alkyd resin and (III) 5-50 wt% of water dispersible resin selected from phenol/HCHO, urea/HCHO, melamine/HCHO, 1-4C alkylated melamine/HCHO, benzoguanamine/HCHO and tetra-bis-ethoxymethyl-bis methoxy-methyl melamine (IV). The ratio of PTFE to II is 5-50:100. These compsns. are useful for coating irregular shaped objects like screws, nuts, cooking pans etc.
	США П. № 3592700-A МПК C08F-029/50; C08G-039/08;	Заявитель MCDONNELL DOUGLAS ORP З. № US750026 Пр-т 05 август 1968 Опубл. 13 июля 2971	114.	POLYTETRAFLUOROETHYLENE COATINGS ON METALS BY. Process for coating metals with polymers comprises formation of metal fluoride coating on the metal surface by contact with anhydrous HF at 20-100 degrees C followed by in situ polymerisation of monomer at 0-100 degrees C, to provide a polymeric coating of thickness 0.1-1 mil. The preferred monomer is tetrafluoroethylene. The continuous coatings give a corrosion resistant, protective, adherent surface to the metal. Process is esp. applicable to Ti, Ag, Al, Ni and their alloys. Provides simple method for applying polymer to, for example, internal surfaces.