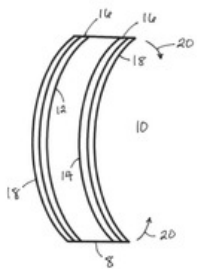
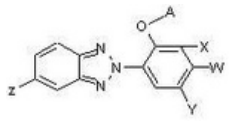
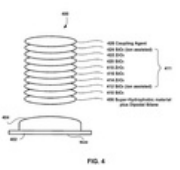
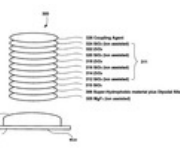
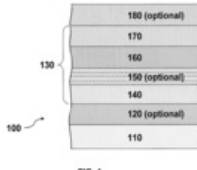
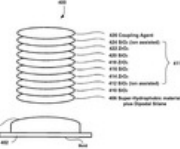
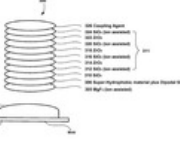
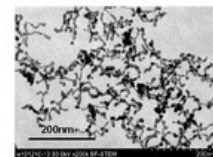


33 results for ((hard 3d (layer or coating))/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (crazing)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX) AND (G02B-001/11)/IPC - Collection: FAMPAT

#		Title	Publication number	Publ. date	Applicant/Assignee	
1.		Crazing resistant coating and method thereof	CA2980015	2016-09-22	INSIGHT EQUITY A P X DBA VISION EASE LENS VISION EASE*	
An anti-reflective coating system configured to resist crazing resulting from applied compressive forces, and an optical article employing the anti-reflective coating system; and methods of forming the same. The present invention provides an anti-reflective coating system and method that effectively eliminates or has increased resistance to crazing and other forms of stress induced damage and, in particular, has increased resistance to crazing of anti-reflective coatings applied over UV cured hard-coatings.						
2.		Anti-ultraviolet transparent hard coating film for in-mold decoration (imd)	CN101955699	2011-01-26	CHINA LUCKY FILM*	
The invention relates to an anti-ultraviolet transparent hard coating film for in-mold decoration (IMD), which is formed by coating a transparent hard coating on a transparent substrate. The transparent hard coating comprises the following components in part by weight: 20 to 40 parts of polyester acrylate oligomer, 10 to 30 parts of organic-inorganic hybrid oligomer, 0.5 to 5 parts of ultravioletabsorption precursor, 1.0 to 10 parts of hydrogen proton donor, 0.5 to 7 parts of photoinitiator, 0.5 to 7 parts of active amine, 0.05 to 2 parts of leveling agent and 30 to 70 parts of solvent, wherein the thickness of the hard coating is 2 to 6mu m. The anti-ultraviolet transparent hard coating film solves the problems of ageing, yellowing, embrittlement and the like of a product irradiated by ultraviolet rays, solves the problems of oxygen inhibition and hydrogen proton consumption and ensures the formation of an ultraviolet absorbent; and the film meets the requirements of the IMD on forming and stretching by combining raw materials and controlling the thickness of the hard coating, and the stretching and forming height of the film can be 7 to 8mm at most but the film cannot be embrittled.						
3.		Photochromic optical article	WO03058300	2003-07-17	PPG INDUSTRIES TRANSITIONS OPTICAL* TRANSITONS OPTICAL	
Describes a photochromic plastic article, e.g., an ophthalmic photochromic article, such as a lens, in which the article includes (1) a polymeric substrate, such as a thermoset or thermoplastic substrate, (2) a photochromic polymeric coating appended to at least one surface of the substrate, the photochromic polymeric coating containing a photochromic amount of at least one organic photochromic material, e.g., spirooxazine, naphthopyran and/or flugide, and (3) a radiation-cured, acrylate-based film coherently appended to the photochromic coating, the acrylate-based film being (a) resistant to removal by aqueous solutions of inorganic caustic, e.g., potassium hydroxide, (b) compatible with organo silane-containing abrasion-resistant coating, and (c) harder than said photochromic coating. Describes also the aforedescribed photochromic article having an abrasion-resistant coating affixed to the radiation-cured acrylate-based film, e.g., an abrasion-resistant coating comprising an organo silane; and a photochromic article having an antireflective coating affixed to the abrasion-resistant coating.						
4.		Anti-reflective lenses and methods for manufacturing the same	WO2015009349	2015-01-22	QSPEX TECHNOLOGIES* QSPEX TECHNOLOGY	
The present invention relates to a method of applying an anti-reflective coating to an optical surface of a mold. In one embodiment, the method includes the steps of providing a lens mold having an optical surface; forming a layer of a super hydrophobic material over the optical surface, wherein the super hydrophobic material contains an amount of dipodal silane that is a relative percentage of the super hydrophobic material; forming an anti-reflective coating layered structure over the layer of the super hydrophobic material; and forming a layer of a coupling agent deposited with a monolayer thickness to the anti-reflective coating layered structure using vapor deposition under aprotic conditions or by dip coating or spin coating using a solution of a coupling agent in an aprotic solvent.						
5.		Anti-reflective lenses and methods for manufacturing the same	US20130301133	2013-11-14	QSPEX TECHNOLOGIES*	
The present invention relates to a method of applying an anti-reflective coating to an optical surface of a mold. In one embodiment, the method includes the steps of providing a lens mold having an optical surface; forming a layer of a hydrophobic material over the optical surface, wherein the hydrophobic material contains an amount of dipodal silane that is a relative percentage of the hydrophobic material; forming an anti-reflective coating layered structure over the layer of the hydrophobic material; and forming a layer of a coupling agent deposited with a monolayer thickness to the anti-reflective coating layered structure using vapor deposition under aprotic conditions or by dip coating using a solution of a coupling agent in an aprotic solvent.						
6.		Durable anti-reflection coatings	WO2011044519	2011-04-14	YAZAKI*	
An article comprising a substrate and an anti-reflection coating, and methods for depositing the coating, are disclosed. The coating comprises (a) a first coating layer having a high refractive index deposited on the substrate; (b) an epoxide-silica coating layer deposited onto the high refractive index coating layer, comprising an inorganic silica component and an organic-inorganic organo-silicate component, and (c) a silica coating layer consisting essentially of silica, deposited directly onto the epoxide-silica coating layer. The anti-reflection coating optionally comprises a stack of coating layers, between the first high refractive index coating layer and the epoxide-silica coating layer, having alternating a low refractive index and a high refractive index. Individual coating layer compositions, refractive indexes, and thicknesses are carefully controlled such that reflectance is minimized through destructive interference in the visible light wavelength range of 400 to 700 nm. The resulting deposited coating provides excellent mechanical, chemical, and environmental durability.						
7.		Anti-reflective lenses and methods for manufacturing the same	US20160209555	2016-07-21	QSPEX TECHNOLOGIES*	
The invention relates to a method of applying an anti-reflective coating to an optical surface of a mold. In one embodiment, the method includes the steps of providing a lens mold having an optical surface; forming a layer of a super hydrophobic material over the optical surface, where the super hydrophobic material contains an amount of dipodal silane that is a relative percentage of the super hydrophobic material; forming an anti-reflective coating layered structure over the layer of the super hydrophobic material; and forming a layer of a coupling agent deposited with a monolayer thickness to the anti-reflective coating layered structure using vapor deposition under aprotic conditions or by dip coating or spin coating using a solution of a coupling agent in an aprotic solvent.						
8.		Anti-reflective lenses and methods for manufacturing the same	US20120262790	2012-10-18	QSPEX TECHNOLOGIES*	
The present invention relates to a method of applying an anti-reflective coating to an optical surface of a mold. In one embodiment, the method includes the steps of: providing a lens mold having an optical surface; forming a layer of a super hydrophobic material with a thickness of about 30 to 40 nm over the optical surface, wherein the super hydrophobic material contains dipodal silane; forming an anti-reflective coating layered structure over the layer of the super hydrophobic material; and forming a layer of a cyclic azasilane coupling agent that is deposited with a monolayer thickness to the anti-reflective coating layered structure using vapor deposition or by dip coating using a solution of cyclic azasilane coupling agent in an aprotic solvent.						

9. **Coating material containing organic/inorganic composite, organic/inorganic composite film and antireflection member** WO2012115057 2012-08-30 **ASAHI KASEI ASAHI KASEI CHEMICALS***

An organic-inorganic composite film containing an organic-inorganic composite including an inorganic compound particle and a polymer bonded to the inorganic compound particles. A percentage of voids in the film is 3 to 70 volume% with reference to a volume of the film.



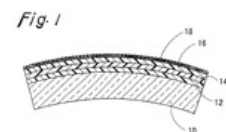
10. **Photochromic article** US20040096666 2004-05-20 **TRANSITIONS OPTICAL***

Describes an optical article, e.g., an ophthalmic photochromic article, such as a lens, in which the article includes: (1) a transparent substrate, such as a thermoset or thermoplastic plastic substrate, (2) a multiply laminate adjacent to at least one surface of the substrate, the laminate comprising (i) a transparent, thermoplastic polyurethane film, the thermoplastic, polyurethane film providing a desirable light filtering property, e.g., photochromism, and being juxtaposed to the surface of the substrate, the polyurethane being formed from a material comprising polyether-based polyurethane or polycarbonate-based polyurethane, and (ii) a transparent protective film of polymeric material, e.g., polycarbonate film, adjacent to the thermoplastic polyurethane film. Describes also the aforescribed optical article having an abrasion-resistant **coating** affixed to the protective film, e.g., an organo-silane abrasion-resistant **coating**; and an optical article having an antireflective **coating** adhered to the abrasion-resistant **coating**.



11. **Optical element and manufacturing method thereof** WO2012157072 2012-11-22 **ITO KOGAKU KOGYO ITOH OPTICAL INDUSTRIAL***

The present invention relates to an optical element which comprises a multi-**layer** antireflective film (optical inorganic thin film) (16) on an optical element substrate (10). A first **layer** (starting from the closest side to the optical element substrate: the same shall apply hereafter.) of the optical inorganic thin film is a vapor-deposited film (hereinafter called "specified vapor-deposited film") composed of either 1) a mixture or compound of La oxide and Ti oxide, or 2) a mixture or compound of La oxide and Ta oxide and shows a refractive index $n_D = 1.95-2.25$. In addition, a final **layer** is to be a vapor-deposited film comprising SiO_2 , and a middle **layer** composed of a single or multi-layered vapor-deposited film which comprises one metal oxide selected from a group consisting of ITO (indium tin oxide) and oxides of Group 4 and 5 elements in the fourth to sixth periods is included in the inner side of the final **layer**. This optical element hardly develops initial swelling while a high degree of heat resistance is maintained.



12. **Curable composition and cured product using the same** JP2005042072 2005-02-17 **FUJIFILM***

PROBLEM TO BE SOLVED: To provide a cured product which has a cured resin **layer** with high hardness and little shrinkage, and particularly is resistant to delaminating and **crazing** and has sufficient hardness, and a curable composition for preparing the cured product.

SOLUTION: The curable composition comprises at least one type of a block copolymer and a light or heat-curable compound, wherein the block copolymer is an AB type, an ABA type or a comb type composed of a block (A) of a radically polymerizable monomer component and a block (B) of a polyester polymerizing component. The curable composition is coated and cured on a base material to provide a cured product having a cured resin **layer**.

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13. **Plastic lens and method production thereof** WO2004046769 2004-06-03 **SEIKO EPSON***

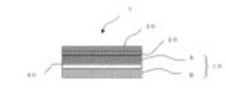
The present invention includes a plastic lens having a plastic lens base material, a primer **layer** formed on the plastic lens base material, and a **hard** coat **layer** formed on the primer **layer**, the **hard** coat **layer** being formed from a **hard** coat composition having (A) an inorganic fine particle having a particle diameter of 1 to 100 millimicrons, (B) an organic silicon compound expressed in terms of a specified Formula (1), (C) a multi-functional epoxy compound, and (D) a curing catalyst. <??>Such a plastic lens is excellent in shock impact resistance by including the primer **layer** and also shows improvements in scratch resistance, water resistance, and permanence properties while keeping the coloring properties of the **hard** coat **layer** of a colorable type.



14. **Hard coat film, polarizing plate and liquid crystal display apparatus** JP2007140229 2007-06-07 **ZEON***

PROBLEM TO BE SOLVED: To provide a **hard** coat film in which thickness unevenness is suppressed by forming a **hard** coat **layer** so as to be thin, which has sufficient surface hardness and can be simply molded and further to provide a polarizing plate having the **hard** coat film and a liquid crystal display apparatus having the polarizing plate.

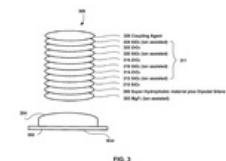
SOLUTION: The **hard** coat film 1 has the **hard** coat **layer** 20 which is laminated on one surface of a base material film 10 and a low refractive index **layer** 30 which is laminated on a surface of the **hard** coat **layer** 20. The base material film 10 is a three-layered laminated body having an uppermost **layer** A on which the **hard** coat **layer** 20 is laminated, an adhesive **layer** 40 and a thermoplastic resin **layer** B in this order. Pencil hardness of the uppermost **layer** A is H or more and a value obtained by multiplication of modulus of tensile elasticity of the uppermost **layer** A by cube of thickness is 100 kPa $\times$ mm³³or more.



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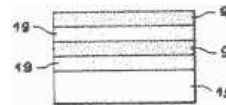
15. **Anti-reflective lenses and methods for manufacturing the same** CA2887662 2014-04-17 **QSPEX TECHNOLOGIES* QSPEX TECHNOLOGY QUEPLEX TECHNOLOGIES**

The present invention relates to a method of applying an anti-reflective **coating** to an optical surface of a mold. In one embodiment, the method includes the steps of: providing a lens mold having an optical surface; forming a **layer** of a super hydrophobic material with a thickness of about 30 to 40 nm over the optical surface, wherein the super hydrophobic material contains dipodal silane; forming an anti-reflective **coating** layered structure over the **layer** of the super hydrophobic material; and forming a **layer** of a cyclic azasilane coupling agent that is deposited with a monolayer thickness to the anti-reflective **coating** layered structure using vapor deposition or by dip **coating** using a solution of cyclic azasilane coupling agent in an aprotic solvent.



16. **Inorganic polymeric material with tantalic acid anhydride base, in particular with high refractive index, mechanically abrasionproof, method of manufacture, optical materials comprising such material** WO9834876 1998-08-13 **CEA - COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES* COMMISSARIAT TRENDENZIE ATOMIQUE FRANCE 7 0 0 1 5 PARIS IMMOBIL & 39 LE PONAN DAY & 39 RUEBLANC 2 5 FRENCH ATOMIC ENERGY COMMISSION**

The invention concerns an inorganic polymeric material with tantalic acid anhydride base, in particular with high refractive index, mechanically abrasionproof, its method of manufacture using in particular precursors with a base of chlorinated tantalum derivatives, and optical materials such as antidazzle materials and reflecting materials made from this material.



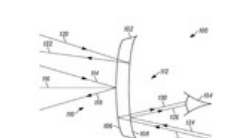
17. **Method for preparing a multilayer optical material with crosslinking-densifying by ultraviolet radiation and resulting optical material** WO9834884 1998-08-13 **CEA - COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES* FRENCH ATOMIC ENERGY COMMISSION**

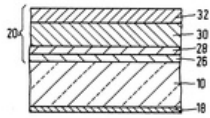
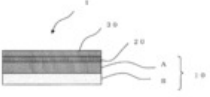
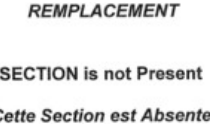
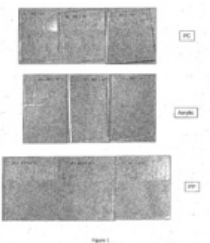
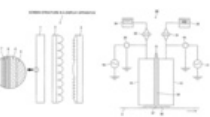
The invention concerns a method for preparing an optical material by depositing on a substrate at least two films of an inorganic polymeric material, each of these films having a base of at least a metal or metalloid oxide, the deposited films being crosslinked-densified by ultraviolet radiation. The invention also concerns the optical material obtainable by this method. The invention further concerns optical materials obtainable by such method in particular multilayer materials such as antidazzle and reflecting materials.



18. **Laser protection eyewear lenses** US20170219849 2017-08-03 **PERRIQUEST DEFENSE RESEARCH ENTERPRISES***

A laser protection eyewear lens includes a lens substrate comprising an embedded wavelength filter having a first filter function, and a multi-**layer** dielectric filter applied to at least one of an inside and an outside surface of the lens substrate that comprises a second filter function having at least one center wavelength and bandwidth. The first filter function of the embedded wavelength filter and the second filter function of the multilayer dielectric filter produce a combined filter function that attenuates light reflecting off the multi-**layer** dielectric filter.



19.	A method of manufacturing a display device and a display device made by the method.	GB8621468	1986-10-15	PHILIPS* PHILIPS GLOEILAMPENFAB US PHILIPS	
The viewing of display devices such as cathode ray tubes can be enhanced by providing an anti-reflection coating on the outer surface of the faceplate panel. In accordance with the present invention the anti-reflection coating comprises at least a three layer interference filter evaporated on a faceplate panel, the external surface of which may be mechanically roughened. The manufacture of the coating can be speeded-up substantially by selecting high and low refractive index materials which can be evaporated at ambient temperatures and subsequently hardened by high temperature annealing outside the evaporation apparatus. The annealing is carried out most conveniently during the standard processing of a cathode ray tube.					
20.	Process and carrier for transferring a coating stack onto an optical article	US20080023138	2008-01-31	ESSILOR INTERNATIONAL*	
The present invention relates to a process for transferring a stack of coatings borne by a removable carrier onto an optical article, comprising: obtaining a carrier having a main surface bearing a stack of coatings, said stack comprising an anti-reflection coating and optionally at least one functional coating,- obtaining an optical article depositing either onto the coating stack or said substrate a layer of an adhesive composition pressing together the optical article and the coating stack, said layer of adhesive composition lying there between, while optionally heating or curing the layer of adhesive composition; withdrawing the removable carrier to recover an optical article coated with said coating stack adhering to said surface through the layer of composition allowing adhesion, wherein: said stack of coatings comprises an organic antistatic coating comprising at least one conductive polymer; and/or said adhesive composition is an organic antistatic coating composition comprising at least one conductive polymer and/or at least one conductive polymer precursor and at least one binder.					
21.	Laminated film, anti-reflection film, polarizing plate, and liquid crystal display device	JP2008132746	2008-06-12	ZEON*	
PROBLEM TO BE SOLVED: To provide a laminated film excellent in optical properties, a high temperature and moisture resistance, and handling properties, and having sufficient surface hardness. SOLUTION: A laminated film comprises two or more resin layers containing a methacrylic resin, wherein (1) at least one layer in the layers constituting the laminated film is composed of a layer (A) comprising a methacrylic resin (A) containing 70 wt.% or more of methyl methacrylate unit having Vickers softening point of 120°C or higher, (2) at least another one layer in the layers constituting the laminated film is composed of a layer (B) comprising methyl methacrylate resin (B) containing 70 wt.% or more of methyl methacrylate unit having Vickers softening point of 95-115°C and a tensile fracture distortion of 15% or more, and (3) the outermost surface of the laminated film is composed of the layer (B). COPYRIGHT: (C)2008,JPO&INPIT					
22.	Glass lens with ion-exchanged antireflection coating and process for manufacture thereof	DE2826052	1979-01-25	AMERICAN OPTICAL AO SOLA INTERNATIONAL*	
There is disclosed a glass ophthalmic lens including an ion-exchanged antireflection coating. Metal oxide films including TiO.sub.2, CeO.sub.2, ZrO.sub.2, La.sub.2O.sub.3, Nd.sub.2O.sub.3, Al.sub.2O.sub.3, and SiO.sub.2 when evaporated on glass lenses in a vacuum chamber by electron-beam techniques form hard optical coatings which are chemically stable at high temperatures and allow potassium and sodium ions to traverse the thickness thereof without changing chemical composition or physical integrity thereby enhancing ability of glass lenses to be ion-exchanged in a conventional ion-exchange treatment. This allows antireflection coated glass lenses to pass impact-resistant standards ANZI Z80.1 for prescription ophthalmic lenses and USAS Z87.1 for safety lenses.					
23.	Spectacle lens	CA2889794	2014-04-03	HOYA*	
An aspect of the present invention relates to an eyeglass lens comprising a lens substrate and a vapor-deposited film either directly or indirectly on the lens substrate, wherein the vapor-deposited film is an oxide film of metal selected from the group consisting of zirconium and tantalum, with a proportion accounted for by regions observed in a streaky shape, in a columnar shape, or in a lump shape in a cross-sectional image of the vapor-deposited film obtained by a transmission electron microscope of equal to or less than 20%.					
24.	Recording media	JP2005004163	2005-01-06	FUJIFILM*	
To provide a recording media capable of reproducing an information signal by an optical means, which effectively prevents formation of flaws on the light-incident surface thereof and has an excellent storage stability, the recording media includes a support; a recording layer capable of recording the information signal; and a light-transmitting layer capable of transmitting a light in this order, wherein the light-transmitting layer includes a light-transmitting film having a moisture expansion coefficient of 8 ppm/%RH to 62 ppm/%RH; and the light-transmitting layer has a surface having a pencil hardness of 2H or more.					
25.	A process of making sols useful of refractive index controlled coatings on plastics for scratch healing purpose	IN3601/DEL/2014	2016-06-17	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH*	
A process for making sols useful for refractive index controlled coatings on plastics for scratch healing purpose. The present invention relates to a process for making sols to deposit refractive index controlled coatings on plastics for scratch healing purpose. Refractive index controlled (1.48-1.65) thermal/UV-thermal curable sols useable to deposit scratch-healing optical quality coatings on plastics (CR-39, PC and related plastics) ophthalmic lenses and sheets were developed. Coating sols were prepared by varying low- (SiO₂) and high-index (TiO₂) components, using TTIP as high index component without addition of any chelating agent. Coatings of 1 to 4 μm thickness showed high transparency, excellent abrasion resistivity, good hardness, and adhesion (ASTM Class 5B) properties as well as thermal and chemical resistance characteristics. Matching refractive index (R₁) value of the coatings and the plastic substrate is helpful to heal the scratches on the surfaces; these index matching hard coatings (variable R₁) would be useful for plastics of different R₁ values.					
26.	Optical element for display	US20050068617	2005-03-31	KONICA MINOLTA NEC* TOSHIBA*	
In order to provide an antireflection film having a uniform thickness and exhibiting excellent adhesion to a base (4), a plasma discharge chamber (12) having a gas supply port (14) for supplying gas G, a stage electrode (11), a prismatic electrode (13) and the like, is employed. The stage electrode (11) is applied with a first high frequency electric field of frequency omega1 and field intensity V1, and the prismatic electrode (13) is applied with a second high frequency electric field of frequency omega2 and field intensity V2. Assuming the intensity of the break-down electric field is IV, following conditions are satisfied; V1 >= IV > V2 or V1 > IV >= V2, omega2 > omega1.					

27.

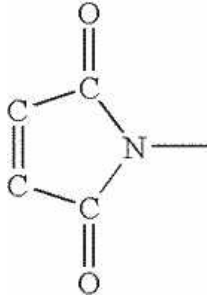
Photochromic multifocal optical article

US20070052922

2007-03-08

TRANSITIONS OPTICAL*

Describes a multifocal optical article, e.g., an ophthalmic article such as a lens, in which the article includes (1) a rigid optical substrate, e.g., a transparent polymeric substrate, such as a thermoset or thermoplastic substrate, adapted to possess at least one light influencing property on at least a portion of at least one surface of the substrate, e.g., a photochromic and/or polarizing **layer**, and (2) a multifocal **layer** of an optical quality material on said substrate having the light influencing property. Describes also the aforescribed optical article having an abrasion-resistant **coating** on the multifocal **layer**, e.g., an abrasion-resistant **coating** comprising an organo silane. A method for preparing the multifocal optical article comprising curing optical quality material between a multifocal mold and a preform comprising an optical substrate possessing the light influencing property is also described.



28.

Optical element having optical inorganic thin film

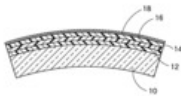
JP2005234188

2005-09-02

ITO OPTICAL INDUSTRIAL*

PROBLEM TO BE SOLVED: To provide an optical element having an optical inorganic thin film which hardly causes cracks or the like in an antireflection film or the like in a high temperature atmosphere such as a parked car in summer.
SOLUTION: The optical element has a multilayer antireflection film (optical inorganic thin film) 16 on a plastic substrate 10. At least one **layer** in the multilayer antireflection film 16 is made of the vapor deposition film of a sintered mixture of a composition containing 33 to 74 mass% titanium oxide (TiO_x), wherein x ranges from 1.5 to 1.88), 19 to 65 mass% lanthanum oxide (La₂O₃) and 2 to 7 mass% titanium (Ti).

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29.

Optical article including an antireflecting coating having antifog properties and process for making same

WO2012013740

2012-02-02

ESSILOR INTERNATIONAL*

An optical article comprising a substrate and on at least one face of the substrate a multilayered antireflecting **coating** functioning in an interferential manner having antifog properties, said antireflecting **coating** including a last **layer** with a refractive index n = 1.55 and a physical thickness of 120 nm or less directly deposited on a high refractive index **layer** (H1 **layer**) having a refractive index n > 1.55, and a thickness of less than 500 nm.



30.

Acrylic resin composition, method for producing same, and optical member

WO2014002506

2014-01-03

KURARAY*

A (meth)acrylic resin composition is obtained by means of a method which involves: obtaining a polymerization reaction solution by dissolving a block copolymer (B), which has a polymer block (a) comprising an alkyl ester (meth)acrylate unit and a polymer block (b) comprising a conjugated diene compound unit, in a monomer mixture (a') containing 50 to 100 mass% of a methyl methacrylate; and polymerizing the monomer mixture (a') once the moisture content within the polymerization reaction solution reaches 1000 ppm or less.

表1					
項目	実施例1	実施例2	実施例3	実施例4	実施例5
モノマー組成割合	50	50	50	50	50
重合温度	60℃	60℃	60℃	60℃	60℃
重合時間	2.2分	2.2分	2.2分	2.2分	2.2分
重合率	95%	95%	95%	95%	95%
重合率/重合率	95%	95%	95%	95%	95%
重合率/重合率	95%	95%	95%	95%	95%
重合率/重合率	95%	95%	95%	95%	95%
重合率/重合率	95%	95%	95%	95%	95%
重合率/重合率	95%	95%	95%	95%	95%
重合率/重合率	95%	95%	95%	95%	95%

31.

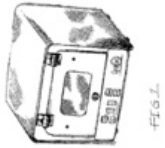
Method and apparatus for manufacturing plastic optical lenses molds and gaskets

US20030214060

2003-11-20

WIRES DUANE L

A method and apparatus for manufacturing plastic ophthalmic and intra-ocular lenses and molds. The apparatus comprises a master mold for creating disposable or re-usable molds that may be used at point of sale. The molds comprise a "moth-eye" anti-reflective surface. The anti-reflective surface may be an integral part of the lens. The anti-reflective surface can be incorporated into a hardened surface of the lens. An improved curing chamber comprising reflective inner surfaces and directionally vector-less light is used for curing lenses. A gasket-less or reduced number of gaskets molding system are provided that may be either re-useable or disposable. An improved method of providing photosensitive eyeglasses and coatings.



32.

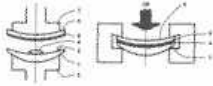
Photocurable adhesive composition and its use in the optical field

WO2004092787

2004-10-28

ESSILOR INTERNATIONAL*

The invention concerns a photocurable adhesive composition comprising, based on total weight of photopolymerizable monomers and/or oligomers of the composition : 5 to 60 wt% of at least one mono or polyacrylate monomer or oligomer thereof (A) ; 5 to 50 wt% of at least one thio(meth)acrylate monomer or oligomer thereof (B) ; and 20 to 50 wt% of at least one aromatic dimethacrylate monomer or oligomer thereof (C) ; with the proviso that the composition does not contain a brominated monofunctional acrylate.



33.

Durable anti-reflection coatings

US20120019915

2012-01-26

YAZAKI*

An article comprising a substrate and an anti-reflection **coating**, and methods for depositing the **coating**, are disclosed. The **coating** comprises (a) a first **coating layer** having a high refractive index deposited on the substrate; (b) an epoxide-silica **coating layer** deposited onto the high refractive index **coating layer**, comprising an inorganic silica component and an organic organo-silicate component, and (c) a silica **coating layer** consisting essentially of silica, deposited directly onto the epoxide-silica **coating layer**. The anti-reflection **coating** optionally comprises a stack of **coating layers**, between the first high refractive index **coating layer** and the epoxide-silica **coating layer**, having alternating a low refractive index and a high refractive index. Individual **coating layer** compositions, refractive indexes, and thicknesses are carefully controlled such that reflectance is minimized through destructive interference in the visible light wavelength range of 400 to 700 nm. The resulting deposited **coating** provides excellent mechanical, chemical, and environmental durability.

