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| 20150210871 | <p>SOL-GEL INK AND METHOD FOR PRODUCING SAME</p> <p>A method for producing a <i>sol-gel</i> ink, in particular from TEOS and MTEOS, is provided. The method includes adding inorganic particles as a filler and adding a high-boiling solvent.</p>   |
| 20150210586 | <p>TRANSLUCENT GLAZING COMPRISING AT LEAST ONE PATTERN THAT IS PREFERABLY TRANSPARENT</p> <p>A glazing, which may be translucent, includes at least one design, which may be transparent. The glazing includes a substrate having two main outer surfaces, at one of which is a textured surface, made of a dielectric material having a refractive index <math>n_1</math> and at least a part of the textured surface of the substrate is coated with a <i>sol-gel</i> layer made of a dielectric material having a refractive index <math>n_2</math>.</p>  |
| 20150202829 | <p>MANUFACTURING METHOD FOR OPTICAL SUBSTRATE USING FILM SHAPED MOLD, MANUFACTURING DEVICE, AND OPTICAL SUBSTRATE OBTAINED THEREBY</p> <p>A method for producing an optical substrate includes: a step of preparing a long shaped mold having a concave-convex pattern surface having a concave-convex pattern; a step of forming a coating film made of a <i>sol-gel</i> material on the concave-convex pattern surface of the film-shaped mold; a step of adhering the coating film, which is formed on the concave-convex pattern surface of the film-shaped mold, to a substrate by arranging the concave-convex pattern surface of the film-shaped mold on which the coating film made of the <i>sol-gel</i> material is formed to face the substrate and by pressing a pressing roll against a surface of the film-shaped mold on a side opposite to the concave-convex pattern surface; a step of releasing the film-shaped mold from the coating film; and a step of curing the coating film adhered to the substrate.</p> |
| 20150201799 | <p>Sol-Gel Coating Comprising Anisotropic Particles and Culinary Article Provided with such a Coating</p> <p>Provided is a vitreous coating comprising at least one layer embodied in the form of a continuous film of <i>sol-gel</i> material comprising a matrix formed from at least one metal polyalkoxylate and wherein anisotropically-shaped particles are dispersed, and a layer comprising at least one area wherein the particles are particles predominantly inclined by an angle (<math>\alpha</math>) of between 20.degree. and 90.degree. relative to the median plane of the film. The subject matter of the present invention also comprises a method of manufacturing such a coating, and a culinary article one of the surfaces of which is coated with such a coating.</p>  |

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| 20150197856 | <p>USE OF TITANIA PRECURSOR COMPOSITION PATTERN</p> <p>A conductive metal pattern can be formed using a titania <i>sol-gel</i> obtained from a titania precursor composition having (a) a titanium alkoxide or titanium aryloxide, (b) a <math>R(O).sub.mCOCH.sub.2CO(O).sub.nR'</math> compound wherein R and R' are independent alkyl and m and n are independently 0 or 1, (c) water, (d) either an acid having a pK.sub.a less than 1 or a source of a halogen, and (e) a water-miscible organic solvent, on a substrate, wherein the molar amounts of (a) through (d) are sufficient to form a pattern of a titania <i>sol-gel</i> upon drying on the substrate. This pattern is contacted with electroless seed metal ions to form a pattern of electroless seed metal ions deposited within the pattern of titania <i>sol-gel</i> on the substrate, which electroless seed metal ions are exposed to electromagnetic radiation to reduce the electroless seed metal. The article is then subjected to electroless metal plating.</p> |
| 20150197839 | <p>FORMING CONDUCTIVE PATTERN USING TITANIA SOL-GEL</p> <p>A conductive metal pattern is formed using a layer of a titania <i>sol-gel</i> formed from a titania precursor composition of (a) a titanium alkoxide or titanium aryloxide, (b) <math>R(O).sub.mCOCH.sub.2CO(O).sub.nR'</math> wherein R and R' are independently alkyl having at least 1 carbon atom, and m and n are independently 0 or 1, (c) water, (d) either an acid having a pK.sub.a less than 1 or a source of a halogen, and (e) a water-miscible organic solvent, on a substrate, to form a layer of a titania <i>sol-gel</i> on the substrate. The layer is contacted with electroless seed metal ions to provide a layer of electroless seed metal ions, imagewise exposed to form non-exposed regions and exposed regions. The electroless seed metal ions in the non-exposed regions are removed and the electroless seed metal nuclei within the titania <i>sol-gel</i> in the exposed regions are then electrolessly plated with a conductive metal.</p>       |
| 20150192707 | <p>TRANSPARENT ELEMENT WITH DIFFUSE REFLECTION COMPRISING A SOL-GEL LAYER</p> <p>A transparent layered element with diffuse reflection properties includes two outer layers made of dielectric materials having substantially the same refractive index and a central layer intercalated between the two outer layers, formed either from a single layer which is a dielectric layer with a refractive index different from that of the outer layers or a metallic layer, or from a stack of layers which includes at least one dielectric layer with a refractive index different from that of the outer layers or a metallic layer. The upper outer layer is a <i>sol-gel</i> layer including a silica-based organic/inorganic hybrid matrix.</p>   |
| 20150191392 | <p>GLASS OR GLASS-CERAMIC COMPOSITE MATERIAL AND METHOD FOR PRODUCING SAME</p> <p>A method for producing a glass or glass ceramic composite material with a metallic decorative appearance is provided. The method includes: applying a layer onto a glass or glass ceramic substrate, the layer comprising a <i>sol-gel</i> and/or a polysiloxane.</p>   |

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|             | patterning the layer; and applying a metallic-looking layer onto the patterned la  |
| 20150190792 | <p>CONTROLLED GROWTH OF MTT ZEOLITE BY MICROWAVE-ASSISTED HYDROTHERMAL SYNTHESIS</p> <p>This invention relates a process for preparing MTT zeolites which process include preparation of a <i>sol-gel</i> from an aluminate solution, mixing a structure directing agent with the <i>sol-gel</i> to form a structure directing mixture, mixing a silica with the structure directing mixture to form a reaction mixture, heating the reaction mixture in a microwave reactor to form an initial zeolite, and removing the structure directing agent to form the MTT zeolite. The invention also relates to MTT zeolites produced by the process, including ZSM-23 zeolites, as well as zeolite membranes, coating and catalysts.</p>   |
| 20150185644 | <p>MAGNETIC TONER</p> <p>It is intended to provide magnetic toner that produces a stable image density in term use and can prevent ghosting under conditions of low-temperature and low-humidity. The present invention provides magnetic toner including magnetic toner particles each containing a binder resin, a magnetic material and a releasing agent and silica fine particles, wherein the silica fine particles include silica fine particles A and B, the silica fine particles A have a number-average particle size of 5-20 nm as primary particles, the silica fine particles B are produced by a <i>sol-gel</i> method, and have a number-average particle size of 40-200 nm as primary particles, an abundance ratio of secondary particles of the silica fine particles of 5-40% by number, and a coverage ratio X1 of the surface of the magnetic toner particles with the silica fine particles determined by ESCA is 40.0-75.0% by area.</p> |
| 20150185643 | <p>DEVELOPING APPARATUS, DEVELOPING METHOD, IMAGE FORMING APPARATUS AND IMAGE FORMING METHOD</p> <p>The present invention provides a developing apparatus including a toner, a toner carrying member and a regulating member, wherein the toner is a magnetic toner including a toner particle, a first fine silica particle having a number average primary particle diameter of 5 to 20 nm and a second fine silica particle having a number average primary particle diameter of 40 to 200 nm, the second fine silica particle is a fine silica particle produced by a <i>sol-gel</i> method, the toner has a total energy of 270 to 355 mJ/(g/ml), the toner carrying member has a substrate, an elastic layer and a surface layer including a urethane resin, and the urethane resin has a partial structure derived from a reaction of a particular amine type compound with a polyisocyanate.</p>   |
| 20150183999 | <p>METHOD OF MANUFACTURING HYDROPHOBIC ANTIFOULING COATING MATERIAL AND METHOD OF FORMING HYDROPHOBIC ANTIFOULING COATING FILM</p>   |

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|  | <p>A method of manufacturing a hydrophobic antifouling coating material, including: mixing a <i>sol-gel</i> precursor, water, an aqueous colloidal silica suspension, and a catalyst to perform a <i>sol-gel</i> reaction to form a solution having particles therein wherein the <i>sol-gel</i> reaction is performed without addition of any organic solvent; (b) chemically modifying the particles with a hydrophobic agent to form surface-modified particles; and (c) adding a surfactant to the solution containing the surface-modified particles to form a hydrophobic antifouling coating material. The hydrophobic antifouling coating material can be dispersed in an aqueous solution, has properties such as low VOC (Volatile organic compound) value, high solid content, and high stability.</p> |
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