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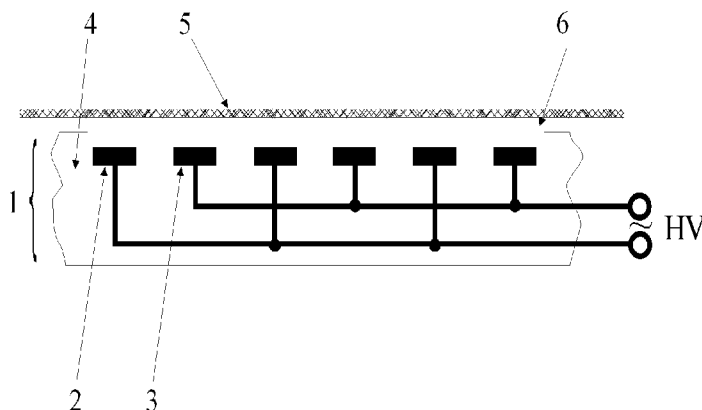
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(54) Title: APPARATUS AND METHOD FOR CLEANING, ETCHING, ACTIVATION AND SUBSEQUENT TREATMENT OF GLASS SURFACES, GLASS SURFACES COATED BY METAL OXIDES, AND SURFACES OF OTHER SiO₂-COATED MATERIALS



(57) Abstract: The present invention relates to a device for cleaning, etching, activation and subsequent treatments of glass surfaces, glass surfaces coated with metal oxides or with organic material layers, SiO₂-layer coated materials, and SiO₂-layer coated materials with an organic material surface coating by effects of an electrical plasma layer. The invention disclosed herein includes at least one electrode system (1) consisting of at least two electrodes (2) and (3) situated inside of a dielectric body (4). An electrical plasma layer is generated preferably at atmospheric gas pressure, and preferably above the electrodes (2) and (3) situated on the same side of the treated glass, metal oxide coated glass, other SiO₂-coated materials and SiO₂-coated materials with a layer of organic material (5) and which are energized by an alternating or pulsed electrical voltage applied between them. The present invention relates also to a method for treatment of the surface of glass, metal oxide coated glass, other SiO₂-coated materials, and SiO₂-coated materials with an organic material layer, which method consists in affecting such surface with electrical plasma generated using the device according to the invention. Alternatively, the plasma-treated surfaces can be coated with a H₂O containing solution, exposed to a monomer vapour, or brought into contact with other materials.

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