

Title (en)

APPARATUS AND METHOD FOR TREATMENT OF WOOD, WOOD FIBRES AND WOOD-BASED MATERIALS

Title (de)

VORRICHTUNG UND VERFAHREN ZUR BEHANDLUNG VON HOLZ, HOLZFASERN UND AUF HOLZ BASIERENDEN MATERIALIEN

Title (fr)

APPAREIL ET PROCÉDÉ POUR LE TRAITEMENT DU BOIS, DE FIBRES DE BOIS ET DE MATÉRIAUX À BASE DE BOIS.

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Application

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Abstract (en)

[origin: WO2008085139A1] The present invention relates to an apparatus for surface treatment of wood, wood fibres and wood-based materials using the action of electric plasma. The invention disclosed herein includes at least one electrode system (1) consisting of electrode systems (2) and (3) situated inside of a dielectric body (4). The electrode systems (2) and (3), above which diffuse plasma is generated preferably at atmospheric pressure, are situated on the same side of the surface of wood, wood fibre layer or wood-based materials (5) and are energised by alternating or pulsed electrical voltage applied between them. The invention further relates to a method for surface treatment of wood, wood fibres and wood-based materials, consisting in treating such surfaces with diffuse plasma generated using the apparatus according to the invention, preferably at atmospheric pressure. Such plasma-treated surface is then advantageously coated with a H₂O containing solution, or the surface is exposed to a monomer vapour or that of another organic substance, or is brought into contact with other materials, or is submerged into a liquid.

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