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(54) Title: METHOD AND APPARATUS FOR TREATING SUBSTRATES

(57) Abstract: The application describes several methods and an apparatus for treatment of at least partial areas of a substrate. In said methods, at least one liquid is applied to at least one partial area of the substrate and electromagnetic radiation is introduced into this liquid, in order to achieve a desired effect in accordance with the respective method. In one method, radicals are generated in the liquid by means of UV radiation prior to application of the liquid, wherein generation of the radicals occurs directly before applying the liquid to the substrate, such that at least a portion of the radicals reaches the substrate. In one method, in which ions are removed from at least partial areas of the surface of a substrate and near surface layers of said substrate, a liquid, which is heated above ambient temperature is applied to the substrate, in order to form a liquid film on at least a partial area of said substrate, wherein electromagnetic radiation is introduced into said liquid film such that at least a portion of the radiation reaches the substrate surface. In another method for changing the surface characteristics of a substrate having an at least partially hydrophobic substrate surface such that at least a portion of said hydrophobic surface gets a hydrophilic surface characteristic, a liquid is applied to at least the partial area of the surface of the substrate, whose surface characteristic is to be changed, and UV radiation of a predetermined range of wavelength is guided through said liquid onto at least the partial area of the surface of said substrate, whose surface characteristic is to be changed. The methods may be performed in a common apparatus in any desired order in series and/or in parallel.

