

Abstract

Super-wet Surface and Preparation Method therefor and Application thereof

The present invention provides a super-wet surface and a preparation method therefor and an application thereof. The super-wet surface is a polypropylene surface, on which a hydrophilic side group is grafted, having a micro-nano structure, wherein the super-wet surface is at least super-hydrophilic and does not contain an initiator residue. The super-wet surface is prepared by grafting, in the absence of an initiator, by means of microwave irradiation, a monomer for forming a side group, on the polypropylene surface, as a grafting base, having a micro-nano structure. The preparation method of the present invention is simple, is easy to operate, requires simple equipment, has low costs, and is easy to industrialize. In the preparation of the super-wet surface, the molecular weight of polypropylene does not decrease after grafting, there is no residual monomer or initiator residue, and the super-wetting effect of the obtained surface is lasting and stable. The super-wet surface can be used in bonding, spraying, oil-water separation, water treatment, biology, medicine and energy fields.

[No Suitable Figure]