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A study on the manufacture of Kevlar membrane modified by inorganic nanoparticles with universal applicability in separating different types of emulsions

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Abstract

With the rapid growth of economy, the situation of oil/water pollution has been intensified to be solved urgently. A membrane for separating emulsions with opposite wettability is prepared by modified with FeOOH and ZnO nanoparticles. The membrane preforms properties of superoleophobicity under water and superhydrophobicity under oil. The oil contact angle of hydrophilic side is 151.7 ° and water contact angle of hydrophobic is 153.6 °. Due to the opposite wettability at the two sides,

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