

Mini Review

Progress in the Structural Design of a Titanium Dioxide Membrane and its Photocatalytic Degradation Properties

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A great deal of attention has recently been paid to degrading polluted water using titanium dioxide because it has the characteristics of low price, nontoxicity and extensive wastewater. However, its wide energy gap, high composite rate of photoelectrons and holes, and difficult separation from wastewater limit its wide application. To improve the photocatalytic property of titanium dioxide and simplify the wastewater treatment process, recent progress in the effect of ion/atomic doping on the photocatalytic activity of titanium dioxide and the applications of solidification technology in the preparation of titanium dioxide members have been discussed, and urgent issues for future research and development are proposed.

Keywords: Titanium dioxide, photocatalyst, structural design, solidification technology, doping modification, degradation

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