

会员专区

帐号:   
密码:

[了解会员服务](#)

广告贴吧

锂离子电池材料

我公司主要从事锂离子正极材料和新型复合金属氧化物的研发、生产与销售

洁纶易纺科技-抗菌纤维

公司致力于抗菌等功能纺织产品开发,是中国抗菌纤维先锋和第一品牌

杉杉科技锂电负极材料

生产中间相炭微球(CMS)等高性能的锂离子电池正负极材料

焦点房产网

买房装修,请到焦点房产网

[发布贴吧广告]

首页 → 材料网刊 → 理论研究 → 正文

## 纳米TiO<sub>2</sub>光催化剂的改性研究

刘转年<sup>1, 2</sup>, 蔡倩倩<sup>2</sup>, 韩晓刚<sup>2</sup>, 赵西成<sup>1</sup>

浏览次数:

(1 西安建筑科技大学材料与工程博士后流动站, 西安 710055; 2 西安科技大学地质与环境学院, 西安 710054)

版权所有 不得转载

**摘要** 纳米TiO<sub>2</sub>具有稳定性好、光催化效率高和不产生二次污染等特点,有着广阔的应用前景,但其光响应范围窄、光量子效率较低、光生电子和空穴易发生复合等缺点,限制了纳米TiO<sub>2</sub>光催化材料的实际应用和发展。改性后的纳米TiO<sub>2</sub>具有较高的催化活性和光量子产率。在对纳米TiO<sub>2</sub>光催化剂的催化机理介绍的基础上综述了纳米TiO<sub>2</sub>的贵金属沉积、金属、非金属掺杂、半导体复合等改性利用,并针对当前光催化剂的研究进展,简单提出了对今后的研究方向展望。

**关键词** 纳米TiO<sub>2</sub> 光催化剂 改性

## Study on Modification of Nano-TiO<sub>2</sub> Photocatalyst

LIU Zhuannian<sup>1, 2</sup>, CAI Qianqian<sup>2</sup>, HAN Xiaogang<sup>2</sup>, ZHAO Xicheng<sup>1</sup>

(1 Post-doctoral Research Station of Material science and Engineering, Xi'an University of Architecture and Technology, Xi'an 710055; 2 College of Geology and Environment, Xi'an University of Science and Technology, Xi'an 710054)

**Abstract** Nano-TiO<sub>2</sub> is applied in many aspects because of its good stability, high photocatalytic efficiency and free-from secondary pollution etc. The practical application and development of the Nano-TiO<sub>2</sub> photocatalytic materials are limited because of the narrow scope of the light response and the low photo-quantum efficiency. It is characterized by higher photocatalytic activity after modifying. The photocatalytic mechanism of nano-TiO<sub>2</sub>, the modification of its photocatalyst and the improving of the efficiency in degradation such as metal and non-metal doping, semiconductor's compound are summarized in this paper. The development of modification of TiO<sub>2</sub> photocatalyst is also prospected.

**Key words** nano-TiO<sub>2</sub>, photocatalyst, modification

[点击查看全文](#) 如果您没有安装PDF阅读软件,请点[这里](#)下载

责任编辑:

2008年12月第5期

