

材料工程专栏

Mechanochemical Synthesis of Visible-light Induced Photocatalyst with Nitrogen and Carbon Doping

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收稿日期 修回日期 网络版发布日期 接受日期

摘要 Nitrogen and/or carbon doped titania photocatalysts were prepared by a novel mechanochemical method. The prepared powders possessed two absorption edges around 400 and 540 nm wavelengths and showed excellent photocatalytic ability for nitrogen monoxide oxidation under visible light irradiation. Under the irradiation of visible light of wavelength >510 nm, 37% of nitrogen monoxide could be continuously removed by the carbon and nitrogen co-doped titania prepared by planetary ball milling of P-25 titania-10% hexamethylenetetramine mixture followed by calcination in air at 400°C.

关键词 [mechanochemical synthesis,titania photocatalyst,carbon and nitrogen doping,nitrogen monoxide,oxidation](#)

分类号 [工艺](#)

DOI:

对应的英文版文章: [206521](#)

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