

Preparation of N-Doped TiO₂ particles for hydrogen evolution

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The Nitrogen-doped TiO₂ photocatalysts were prepared by sol-gel method with titanium dioxide and urea as precursors. The Nitrogen-doped TiO₂ photocatalysts were prepared changing the ratio of urea/TiO₂ particles and calcination temperature. The photocatalysts were characterized by transmission electron microscopy (TEM), X-ray photoelectron spectroscopy (XPS), fourier transform infrared (FT-IR), and X-ray diffraction (XRD). The photocatalytic activity of N-doped TiO₂ was determined by measuring the amount of hydrogen evolved from water splitting. The amount of hydrogen evolution was determined by using gas chromatograph with Ar carrier.