Photocatalytic degradation on Ni loaded Ti-containing mesoporous silica prepared by a photo-assisted deposition (PAD) method

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**Abstract**

The Ni/Ti-containing mesoporous silica catalysts were prepared via two different routs. The first one, by the name of a photo-assisted deposited (PAD) method, in which the nano-sized Ni catalyst can be highly deposited on Ti-containing mesoporous silica (PAD-Ni/Ti-HMS). The second one, the Ni was loaded on Ti-HMS with incipient wetness impregnation method (imp-Ni/Ti-HMS). It has been found that the photocatalytic activity of the PAD-Ni/Ti-HMS is higher than that of the imp-Ni/Ti-HMS and Ti-HMS for the decomposition of 2-propanol with O₂ under UV-light irradiation.

**Keywords**

- Nanomaterials;
- Catalysis;
- Ni-doped Ti-HMS