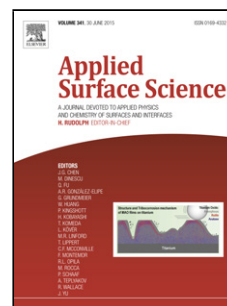


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High photoactive TiO₂/SnO₂ nanocomposites prepared by laser pyrolysis

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Highlights

- TiO₂/SnO₂ nanocomposites were synthesized by the single step laser pyrolysis
- TiCl₄, SnCl₄ and O₂ from air were the precursors and C₂H₄ was the sensitizer
- Different Sn (1.1-4.8 at.%) concentrations were found
- TiO₂/SnO₂ samples have a lower bandgap energy (E_g= 2.9 eV) and better UV photoactivity as compared with the P25 Degussa

Abstract.

TiO₂/SnO₂ nanocomposites have been prepared by laser pyrolysis of volatile TiCl₄ and SnCl₄ precursors introduced together or separately in the reaction zone in the presence of air as oxidant and ethylene as sensitizer. Prior to the obtaining of TiO₂/SnO₂

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