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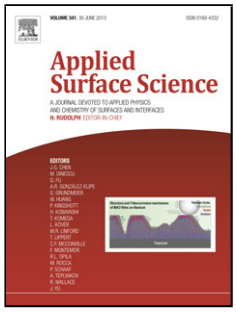

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Influence of Silver nanoparticles on Titanium oxide and Nitrogen doped Titanium oxide Thin films for Sun Light Photocatalysis

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Highlights

- Successfully Deposited titanium oxide (TiO_2), nitrogen doped titanium oxide (N-TiO_2) and Silver nanoparticles loaded on TiO_2 and N-TiO_2 films.
- The phase transformation takes place with increasing nitrogen flow rates, the phase transformation confirmed by XRD, Raman and optical studies.
- Silver nanoparticles plays an important in photo catalysis
- In this article we reported detailed explanation of effect of silver nanoparticles on N-TiO_2 and TiO_2 films
- N-TiO_2 and silver nanoparticles on N-TiO_2 films exhibits highest photocataytic activity, due to decrease the recombination of photo exited electrons.
- Decreasing recombination of photo exited electrons was confirmed by Photoluminescence spectra.
- The silver nanoparticles loaded N-TiO_2 films showed highest degradation of 95% compare to the N-TiO_2 films

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