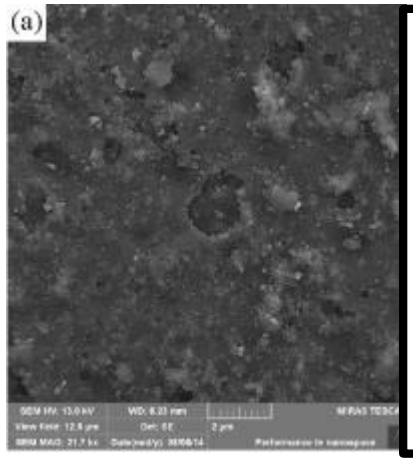
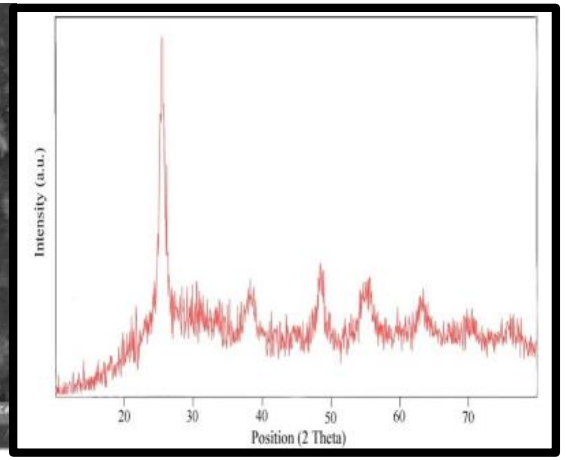
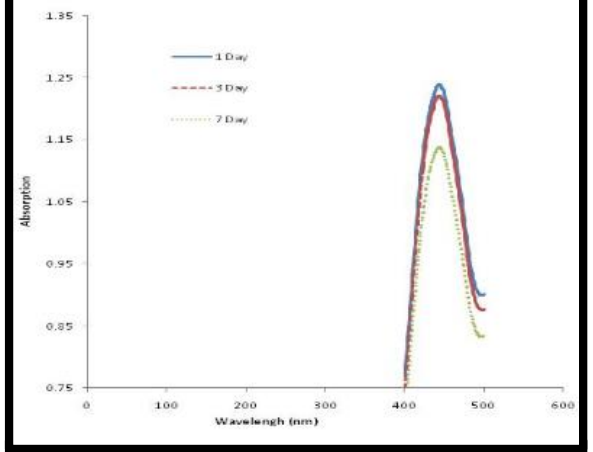
- ***TiO2 thin film: Preparation, Characterization and its photocatalytic degradation of basic yellow 28 dye***
- *Doi:10.7508/jns.2015.02.014*
- This article presents the synthesis of N-S doped TiO2 (NSTO) thin films through the sol gel method utilizing Tetrabutylorthotitanate as metalorganic precursor. The thin film was deposited using the dip coating method over crystal spheres to analyze its capacity to degradade organic dyes.



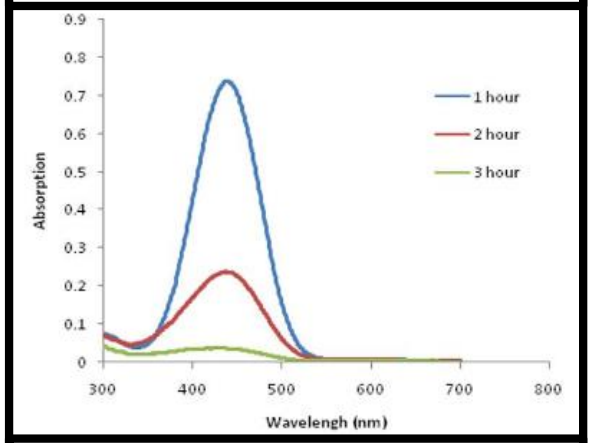
SEM micrography of the morphology of NSTO films showing a surface composed of small spherical nanoparticles



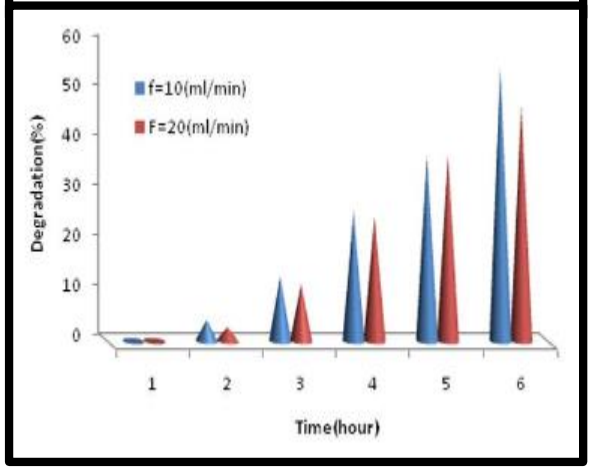
XRD pattern collected from NSTO films, the simples were thermally treated to achieve Anatase only TiO2 structure



Uv-vis spectroscopy was used to monitor the degradation rate of yellow 28 dye under optimal conditions. Showing significant degradation after 7 days.



After adding the NSTO the degradation time dropped significally down to 3 hours showed by decrease on its absorbance peak between 400-500 nm



It was found that the flow rate at which the dye solution was added to the NSTO films can influence the degradation percentage through time.

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