

.Synthesis and Morphological Study of Nickel Oxide Nanoparticle

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Abstract: Nickel oxide (NiO) nanoparticles have been successfully synthesized by sol-gel method using ascorbic acid was used as a reducing reagent and ethylene glycol as a sol stabilizer and also served as a diffusion barrier. The characterization has been done with XRD, TEM, FTIR, and UV-Vis Spectroscopy. The particle size was determined from X-ray diffraction which was also confirmed by TEM. The band gap energy was calculated by UV-Vis-NIR and structural property by FT-IR spectroscopy. The results obtained from the study confirm the formation of nickel oxide nanomaterial with the particle size of 25 nm.

Keywords: NiO, Sol-Gel Method, Band Gap

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