

Synthesis and characterization of Sn doped ZnO nanoparticles by flame spray pyrolysis

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Undoped and Sn doped ZnO nanoparticles were synthesized by the flame spray pyrolysis method using different mole ratio. The effects of the various composition and operating condition were investigated through the changes of surface morphology, crystalline structure and electric properties. All the synthesized Sn doped and undoped ZnO nanoparticles were characterized by various characterization methods.

The particle size of synthesized Sn doped ZnO nanoparticles was under 30 nm and the all the synthesized nanoparticles were fully crystallized. The electric property, which was measured by the surface resistance measurement, was changed. In the case of Sn doped ZnO nanoparticles, the surface resistance was lower than that of Sn undoped ZnO nanoparticles.