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Synthesis and characterization of zinc oxide (ZnO) nanoparticles by biological route using probiotic microbe

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The paper reports a low cost biological method for synthesis of Zinc oxide nanoparticles (ZnO NP). The method involves probiotic microorganism (*Lactobacillus plantarum*) mediated chemical transformation leading to formation of nanosized materials. The structural and optical characterizations of the obtained ZnO NP was carried out using X-Ray diffraction (XRD), Scanning electron microscopy (SEM) and UV-Visible spectroscopy. The results confirmed the obtained material to be ZnO having size in the range 45 to 80 nm. The studies on electrical and optical properties of the ZnO nano particles are reported in this paper.

Biography

S. Tewari has completed his Ph.D. from National Institute of Technology, Silchar, Assam,India in 2010. He worked as teaching faculty in National Institute of Technology, Silchar, Assam, India. From 2000 to 2008. Presently, he is working as Assistant Professor in the Department of Physics at Karimganj College, Assam, India. He has published more than 25 papers in reputed journals and has acted as reviewer for various journals.

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