

Nanoscience and Technology

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Abstract

Nanostructure science and technology is a broad and multidisciplinary, field of research and emerging in recent years which has tremendous applications in the field of material science. It is one of the most visible and growing research areas in materials science in its broadest sense. Nanostructured materials include atomic clusters, layered films, filamentary structures, and bulk nanostructured materials. Nanoparticles or nanocrystals made of metals, semiconductors, or oxides are of interest for their electrical, optical, and chemical properties. Nanoparticles have been used as quantum dots and as chemical catalysts. The nanostructured materials could be characterized by various methods. They include: X-Ray Diffraction used for the determination of crystallinity, crystal structures and lattice constants of nanoparticles, scanning electron microscopy transmission electron microscopy and scanning probe microscopy used for the determination of particle size and morphology etc. In this paper we have study the chemical compatibility of the substance materials in their nano structured crystallites with YBCO powders, at elevated temperature.

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Biography

Dr. Sumit Kumar Gupta Dean, Faculty of Science Parishkar College of Global Excellence Jaipur, India, in the Department of Physics, With over 16 years of teaching, research, and administrative experience, he has held various administrative positions as the Head of Department in various degree colleges and engineering colleges and has a vast experience of teaching in IIT-JEE Institute

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