N P Singh et al., Madridge J Nanotechnol Nanosci. 2016
http://dx.doi.org/10.18689/2638-2075.a1.003

madridge CONFERENCES

International Nanotechnology Conference & Expo

April 4-6, 2016 Baltimore, USA

Optical characterization of Au nanoparticles doped bismuth borate glass

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Au nanoparticles doped Bismuth borate glass was prepared by melt quenching technique. X-ray diffraction confirms the amorphous behaviour of the samples prepared. The prepared sample were studied by using UV-VIS and Fourier Infrared spectroscopic techniques. Optical band gap was calculated from transmission spectra using Mott and Davis model.

Biography:

He obtained his Doctorate (Ph.D.) from Guru Nanak Dev University, Amritsar, India in 1987. He was Visiting Faculty at Department of Physics, Grambling State University, Grambling, Louisiana, LA 71245, USA and worked as Visiting Scientist at International Centre for Theoretical Physics, Italy and Jozef Stephan Institute, Ljublijana, Yugoslavia.

He had completed sponsored research projects successfully on "*Development of Lead based Ceramics for applications in Pyro-electric IR Sensors*", "*On the transport properties of III -V Compound semi - conducting Thin Films", "Development of* $Ga_xIn_{1-x}Sb$ *thin films for Device applications" and "Development of LPE for semiconducting thin films"*.

He published book entitled, "**Experiments in Materials Sciences"** and was the Guest Editor for the special issue on **Material Science: Trends and Future**, published by Indian Journal of Engineering & Material Science**.**