Journal of Nonlinear Analysis and Optimization
Vol. 11(8) (2020), August 2020
https://ph03.tci-thaijjo.org/
ISSN : 1906-9685

J.Nonlinear Anal. Optim

Optical studies of Sr_2CeNbO_6 Nano Phosphor synthesized by Hydrothermal Method

Dr G Kalyani
Associate Professor, Department of CSE
Sri Sai Institute of Technology and Science, Rayachoti
Email: kalyaniphd@gmail.com

Abstract

New rare earth Strontium Cerium Niobate (SCN) was synthesized for the first time by hydrothermal method. The main advantage of the hydrothermal method is that to reduce the higher synthesis temperatures and to obtain less agglomeration of the nanocrystals by using different solvents. X-Ray Diffractometer shows high crystallinity and monoclinic structure of the strontium cerium niobate.

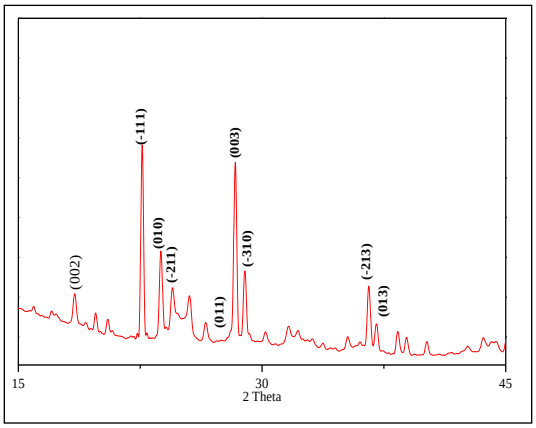

Fig. 1 shows XRD measurement of Strontium Cerium Niobate

Photoluminescence emission shows emission at 390nm when this SCN exited at 362nm. Fourier transform infrared spectrum has been done to confirm the different bonds that are responsible for the emission centres.

Keywords: Hydrothermal method, SCN, Photoluminescence, agglomeration.