

Fluorescence and Optical Studies of Sodium Carbonate Boric Acid - ANLO Single Crystal

S. Bavya, V. Vidhya and Selvaraj G

Department of Physics

Ponnaiyah Ramajayam Institute of Science and Technology, Deemed University, Thanjavur, India

Corresponding Author: selvarasumsc@gmail.com

Abstract: *The single crystals of sodium carbonate borate (SCB) were grown by evaporation technique. The crystallinity of SCB was determined using powder XRD. The optical characteristics of SCB are investigated using UV-Vis spectral measurements. At 650 nm, a significant red emission was found in the SCB fluorescence spectrum. Microhardness testing was used to determine the sample's mechanical strength.*

Keywords: XRD, FTIR, Fluorescence, Microhardness

REFERENCES

- [1]. Williams W. P, Gosnell T. R, and Nurmikko A.V, Cambridge, UK, 2003.
- [2]. Sutherland R.L, II Ed., Marcel Dekker Inc. New York, 2003.
- [3]. Jagannathan K, Kalainathan S, Bhagavannarayana G, Spectrochimica Acta Part A 73 (2009) 79–83.
- [4]. Raju R.K, Dharamaprakash S.M, Jayanna H.S, Advances in Materials Physics and Chemistry, 2015, 5, 399-407.
- [5]. Mekala Daniela, Jeyarani Malliga M, Sankar R, Jayaraman D, Materials Chemistry and Physics 114 (2009) 18–22.
- [6]. Mohana, M., Muraleedharan, R., Ramajothi, J. European Journal of Molecular and Clinical Medicine, 2020, 7(4), pp. 2634–2638
- [7]. Uma J, Rajendran V, International Journal of Computer Applications (0975 – 8887) Volume 30– No.12, September 2011.