



Contribution ID: 95

Type: **Poster Presentation**

Heavy ion beam analysis of ion implanted poly-aniline nano-composites

Thursday, 11 July 2019 15:00 (2 hours)

Ion Beam Analysis is a suite of techniques used to determine elemental composition and depth profiles of thin film structures. The effectiveness of the analysis is expected to improve with the use of heavy ions due to higher cross sections (such as stopping force and X-ray production). In this project a comparison will be done between analysis with heavy ions and with light ions. The analysis is to be performed as part of the project aimed at developing polymer based nuclear radiation sensors. Several films of PANI were deposited on ITO coated PET substrates via spin coating. The films were then implanted to different doses using 100 keV Ti⁺ ions to form metal-polymer nanocomposites. RBS, PIXE and ERDA analyses were carried out at iThemba LABS TAMS to confirm implant doses and depth profiles.

Apply to be considered for a student award (Yes / No)?

Yes

Level for award (Hons, MSc, PhD, N/A)?

Msc

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