



Contribution ID: 445

Type: **Poster Presentation**

X-Ray characterization of Fe and Cu doped CdO nanoparticles by ball mill method

Tuesday, 8 July 2014 17:10 (1h 50m)

Abstract content
 (Max 300 words)
Formatting &
Special chars

The doped and undoped cadmium oxide (CdO) nanoparticles were successfully synthesized using high energy ball mill method. Different percentages (5, 10 and 15) of Fe (respectively Cu) metals were added to the CdO compound, and the resulting compound was ball milled using steel balls and vials. The particle size, size distribution and microstructural evolution were characterized using of X-ray diffraction (XRD), scanning electron microscopy (SEM) and transmission electron microscopy (TEM). The particle sizes of the powders were found to be of nanometer size and were changing with doping concentration. SEM micrographs show that the powders are compact and dense. Ultraviolet visible (UV-Vis) and Photoluminescence (PL) studies are underway.

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

No

**Level for award
 (Hons, MSc,
 PhD)?**

MSc

**Main supervisor (name and email)
and his / her institution**

Rammutla KE, erasmus.rammutla@ul.ac.za

Mosuang TE, thuto.mosuang@ul.ac.za

**Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?**

Yes

Primary author: Mr MAKGOBELA, Rasitilo (University of Limpopo)

Co-author: Prof. RAMMUTLA, Koena (University of Limpopo)

Presenter: Mr MAKGOBELA, Rasitilo (University of Limpopo)

Session Classification: Poster1

Track Classification: Track A - Division for Physics of Condensed Matter and Materials