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Studies of structural properties of Al and Y co-doped tin oxide

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**Abstract content
 (Max 300 words)
Formatting &
Special chars**

Nanocrystalline Al/Y co-doped tin oxide powders were successfully synthesized using the sol-gel method. The samples were subjected to different temperatures ranging from 200 to 1000 degrees celsius. The effects of co-doping and temperature on the structural properties of Al/Y co-doped tin oxide nanoparticles were investigated. The characterization techniques used were X-ray powder diffraction (XRD) and Raman spectroscopy. The average particle sizes were found to be in the range between 2.5 – 8 nm in the temperature range studied while the strains were in the range between 2.76 – 0.53. Both the XRD and Raman spectroscopy confirm that at higher temperatures yttrium stannate is formed.

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

No

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

N/A

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

Rammutla KE, erasmus.rammutla@ul.ac.za, University of Limpopo

**Would you like to
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YES

Primary author: Mr NTIMANE, Nduma James (University of Limpopo)

Co-authors: Prof. RAMMUTLA, Koena erasmus (University of Limpopo); Dr MOSUANG, Thuto (University of Limpopo)

Presenter: Prof. RAMMUTLA, Koena erasmus (University of Limpopo)

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