Contribution ID: **347** Type: **Oral Presentation**

Synthesis, Structural Characterization and Magnetic Properties of Mg_{1-x}Zn_xFe₂O₄ Nanoparticles

Wednesday, 11 July 2012 11:15 (20 minutes)

Abstract content
   (Max 300 words)

Mixed zinc magnesium ferrite nanoparticles Mg_{1-x}Zn_xFe₂O₄ with 0 ≤ x ≤ 1.0 in step of 0.1 have been produced by centrifugation using the glycol-thermal method. The nanoparticles were synthesized at 200 deg;C using a stirred pressure reactor. Single-phase formation was confirmed by X-ray powder diffraction which revealed a well defined cubic spinel structure. According to calculations from Scherrer formula, the nanoparticles size ranged from 18 to 22 nm. The magnetic properties of the nanoparticles were studied using a ⁵⁷Fe Mössbauer spectroscopy and vibrating sample magnetometer (VSM).

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

yes

Level for award
 (Hons, MSc,
   PhD)?

MSc

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

Dr Thomas Moyo email; moyo@ukzn.ac.za; University of KwaZulu-Natal

Would you like to <br> submit a short paper <br> for the Conference
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Yes

Primary author: Mr MASINA, Patrick (School of Chemistry and Physics, Westville Campus,University of KwaZulu Natal, Durban, South Africa)

Co-authors: Mr ABDALLAH, Hafiz (School of Chemistry and Physics, Westville Campus,University of KwaZulu Natal, Durban, South Africa); Dr MSOMI, Justice (University of KwaZulu Natal); Dr MOYO, Thomas (School of Chemistry and Physics, Westville Campus,University of KwaZulu Natal, Durban, South Africa)

Presenter: Mr MASINA, Patrick (School of Chemistry and Physics, Westville Campus,University of KwaZulu Natal, Durban, South Africa)

Session Classification: DCMPM1

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