

**LIST OF PUBLICATIONS**  
**(RELATED TO THESIS)**

**Mohanty, P.**, Singh, V. P., Mishra, N. C., Ojha, S., Kanjilal, D. and Rath, Chandana, Evolution of structural and magnetic properties of Co-doped TiO<sub>2</sub> thin films irradiated with 100 MeV Ag<sup>7+</sup> ions, *J. Phys. D:Appl. Phys.*, 47, 315001, 2014.

**Mohanty, P.**, Kabiraj, D., Mandal, R. K., Kulriya, P. K., Sinha, A. S. K. and Rath, Chandana, Evidence of room temperature ferromagnetism in argon/oxygen annealed TiO<sub>2</sub> thin films deposited by electron beam evaporation technique, *J. Magn. Magn. Mater.*, 355, 240-245, 2014.

**Mohanty, P.**, Saravanakumar, S., Saravanan, R. and Rath, Chandana, TiO<sub>2</sub> Nanowires grown from nanoparticles: structure and charge density study, *J. Nanosci. Nanotechnol.*, 13, 6672-6678, 2013.

**Mohanty, P.**, Ganeshan, V. and Rath, Chandana, Room Temperature Ferromagnetism in Ti<sub>0.985</sub>Co<sub>0.015</sub>O<sub>2-δ</sub> Thin Films Grown by Pulsed Laser Deposition Technique, *Materials Science Forum*, 760, 1-7, 2013.

**Mohanty, P.**, Mishra, N. C., Choudhary, R. J., Banerjee, A., Shripathi, T., Lalla, N. P., Annapoorni, S. and Rath, Chandana, Oxygen vacancy induced phase formation and room temperature ferromagnetism in undoped and Co-doped TiO<sub>2</sub> thin films, *J. Phys. D: Appl. Phys.*, 45, 325301, 2012.

**Mohanty, P.**, Mallick, P., Mishra, N. C., Banerjee, A., Shripathi, T., and Rath, Chandana, "Effect of oxygen vacancy on magnetic properties of Ti<sub>1-x</sub>Co<sub>x</sub>O<sub>2</sub> nanoparticles synthesized by sol-gel route"; *International Journal of Nanotechnology and Applications*, 5, 383-393, 2011.

Rath, Chandana, **Mohanty, P.**, Pandey, A. C. and Mishra, N. C., Oxygen vacancy induced structural phase transformation in TiO<sub>2</sub> nanoparticles, *J. Phys. D:Appl. Phys.*, 42, 205101, 2009.

**(NOT RELATED TO THESIS)**

**Mohanty, P.**, Rath, Chandana, Mallick, P., Biswal, R. and Mishra, N. C., UV-visible studies of nickel oxide thin film grown by thermal oxidation of nickel, *Phys. B Condens. Matter*, 405, 2711-2714, 2010.

Kumar, L., **Mohanty, P.**, Shripathi, T. and Rath, Chandana, Appearance of Superparamagnetic Phase Below Curie Temperature in Cobalt chromite nanoparticles, *Nanosci. Nanotechnol. Lett.*, 1, 199-203, 2009.

Rath, Chandana and **Mohanty, P.**, Magnetic phase transitions in cobalt chromite nanoparticles, *J. Supercond. Nov. Magn.*, 24, 629-633, 2011.

Rath, Chandana, **Mohanty, P.** and Banerjee, A., Magnetic properties of nanoparticles of cobalt chromite, *J. Magn. Magn. Mater.*, 323, 1698-1702, 2011.

Singh, V. P., **Mohanty, P.**, Lochab, S. P. and Rath, Chandana, Anomalous luminescent properties in ZnO and SrAl<sub>2</sub>O<sub>4</sub> composites, *RSC Adv.*, 4, 36765-36770, 2014.

Kumar, D., **Mohanty, P.**, Singh, V. P., Galivarapu, J. K., Banerjee, A., Ganesan, V. and Rath, Chandana, Tuning of magnetic transition temperatures in nanoparticles of CoCr<sub>2</sub>O<sub>4</sub> multiferroic by B-site mixing, *Mater. Res. Bull.*, 54, 78-83, 2014.

### **BEST POSTER AWARD IN CONFERENCES**

**International Conference on Swift Heavy Ions in Materials Engineering and Characterization (SHIMEC)** October 2014. Inter University Accelerator Center (IUAC), New Delhi. India. “*Evolution of transport and magnetic behaviour in epitaxial Ti<sub>1-x</sub>Co<sub>x</sub>O<sub>2-δ</sub> thin films under swift heavy ion irradiation*” **Mohanty, P.**, Mishra, N. C., Choudhary, R. J., Rawat, R. and Rath, Chandana.

**Conference cum Workshop on Electron Microscopy**, December 2012, Department of Metallurgical Engineering, IIT (BHU). “*Room Temperature ferromagnetism: Ti<sub>1-x</sub>Co<sub>x</sub>O<sub>2-δ</sub> (x = 0, 0.015) thin film grown by pulsed laser deposition*”. **Mohanty, P.**, Mishra, N. C., Choudhary, R. J., Banerjee, A., Shripathi, T., Lalla N. P. and Rath, Chandana.

**National Conference on Experimental Tools for Materials Science Research: State of Art**, 3 - 4 December 2010. Department of Physics, Mahila Mahavidyalaya, Banaras Hindu University, ‘*Effect of Oxygen Vacancy in Phase Transformation and Magnetic Properties of Ti<sub>1-x</sub>Co<sub>x</sub>O<sub>2</sub> (x = 0 to 0.05) nanoparticles*’, **Mohanty, P.** and Rath, Chandana.