

Dr. Subharjyoti Dey:

Journal Publications:

- [1] Structural, microstructural, magnetic and hyperfine characterization of nanosized $\text{Ni}_{0.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$ synthesized by high energy ball-milling method by S. Dey, S.K. Dey, B. Ghosh, V.R. Reddy, S. Kumar, *Materials Chemistry and Physics* 138, 833(2013).
- [2] Role of inhomogeneous cation distribution in magnetic enhancement of nanosized $\text{Ni}_{0.35}\text{Zn}_{0.65}\text{Fe}_2\text{O}_4$: A structural, magnetic and hyperfine study by S. Dey, S.K. Dey, B. Ghosh, P. Dasgupta, A. Poddar, V.R. Reddy, S. Kumar, *Journal of Applied Physics* 114, 093901 (2013).
- [3] Superparamagnetic behavior of nanosized $\text{Co}_{0.2}\text{Zn}_{0.8}\text{Fe}_2\text{O}_4$ synthesized by a flow rate controlled chemical coprecipitation method by S. Dey, S. K. Dey, S. Majumder, A. Poddar, P. Dasgupta, S. Banerjee, S. Kumar, *Physica B*, 448, 247 (2014).
- [4] Overcoming inherent magnetic instability, preventing spin canting and magnetic coding in an assembly of ferrimagnetic nanoparticles by S. Dey, S. K. Dey, K. Bagani, S. Majumder, A. Roychowdhury, S. Banerjee, V. R. Reddy, D. Das, and S. Kumar, *Applied Physics Letters* 105, 063110 (2014).
- [5] Magnetic, X-ray and Mössbauer studies on magnetite/maghemite core-shell nanostructures fabricated through an aqueous route by S. J. Iyengar, M. Joy, C. K. Ghosh, S. Dey, R. K. Kotnala and S. Ghosh, *RSC Advances* 4, 64919 (2014).
- [6] A comparative study on the structural, optical and magnetic properties of Fe_3O_4 and Fe_3O_4 @ SiO_2 core-shell microspheres along with an assessment of their potentiality as electrochemical double layer capacitors by S. Majumder, S. Dey, K. Bagani, S. K. Dey, S. Banerjee and S. Kumar, *Dalton Transactions* 44, 7190 (2015).
- [7] Stable room temperature magnetic ordering and excellent catalytic activity of mechanically activated high surface area nanosized $\text{Ni}_{0.45}\text{Zn}_{0.55}\text{Fe}_2\text{O}_4$ by S. Dey, R. Gomez, R. Mondal, S. K. Dey, P. Dasgupta, A. Poddar, V. R. Reddy, A. Bhaumik and S. Kumar, *RSC Advances* 5, 78508 (2015).
- [8] Tuning magnetization, blocking temperature, cation distribution of nanosized $\text{Co}_{0.2}\text{Zn}_{0.8}\text{Fe}_2\text{O}_4$ by mechanical activation by S. Dey, R. Mondal, S. K. Dey, S. Majumder, P. Dasgupta, A. Poddar, V. R. Reddy and S. Kumar, *Journal of Applied Physics* 118, 103905 (2015).

- [9] Synthesis, X-ray Rietveld analysis, infrared and Mössbauer spectroscopy of $R_2\text{FeSbO}_7$ ($R^{3+}=\text{Y, Dy, Gd, Bi}$) pyrochlore solid solution by Y. M. Jana, P. Halder, A. Ali Biswas, A. Roychowdhury, D. Das, S. Dey and S. Kumar, *Journal of Alloys and Compounds* 656, 226 (2016).
- [10] Albumin matrix assisted wet chemical synthesis of nanocrystalline $M\text{Fe}_2\text{O}_4$ ($M= \text{Cu, Co and Zn}$) ferrites for visible light driven degradation of methylene blue by hydrogen peroxide by M. Saha, S. Mukherjee, S. Kumar, S. Dey and A. Gayen, *RSC Advances* 6, 58125 (2016).
- [11] A highly sensitive non-enzymatic hydrogen peroxide and hydrazine electrochemical sensor based on 3D micro-snowflake architectures of $\alpha\text{-Fe}_2\text{O}_3$ by S. Majumder, B. Saha, S. Dey, R. Mondal, S. Kumar and S. Banerjee, *RSC Advances* 6, 59907 (2016).
- [12] Nanocrystalline CopperNickelZinc Ferrite: Efficient Sensing Materials for Ethanol and Acetone at Room Temperature by C. Mukherjee, R. Mondal, S. Dey, S. Kumar and J. Das, *IEEE Sensors Journal* 17, 2662 (2017).
- [13] Study on magnetic and hyperfine properties of mechanically milled $\text{Ni}_{0.4}\text{Zn}_{0.6}\text{Fe}_2\text{O}_4$ nanoparticles by R. Mondal, S. Dey, S. Majumder, A. Poddar, P. Dasgupta and S. Kumar, *Journal of Magnetism and Magnetic Materials* 135, 448 (2018).
- [14] Influence of high energy ball milling on structural parameters, cation distribution and magnetic enhancement of nanosized $\text{Co}_{0.3}\text{Zn}_{0.7}\text{Fe}_2\text{O}_4$ by R. Mondal, S. Dey, K. Sarkar, P. Dasgupta and S. Kumar, *Materials Research Bulletin* 160, 102 (2018).
- [15] Superparamagnetic behavior of nanosized ZnFe_2O_4 by S Dey, R Mondal, S Majumder, P Dasgupta, A Poddar, S Banerjee, S Kumar, *Materials Today Proceedings* 5, 9855 (2018)
- [16] Presence of mixed magnetic phase in mechanically milled nanosized $\text{Co}_{0.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$:
A study on structural, magnetic and hyperfine properties by K. Sarkar, R. Mondal, S. Dey, S. Majumder and S. Kumar, *Journal of Magnetism and Magnetic Materials* 487, 165303 (2019)
- [17] Magnetic, Pseudocapacitive, and H_2O_2 -Electrosensing Properties of Self-Assembled

Superparamagnetic $\text{Co}_{0.3}\text{Zn}_{0.7}\text{Fe}_2\text{O}_4$ with Enhanced Saturation Magnetization by R.Mondal, K. Sarkar, S. Dey, D. Majumdar, S. K. Bhattacharya, P. Sen and S. Kumar, ACS Omega 4, 12632 (2019)

[18] Cation vacancy and magnetic properties of ZnFe_2O_4 microspheres by K. Sarkar, R.Mondal, S. Dey and S. Kumar, Physica B 583, 412015 (2020)

[19] Influences of crystal structure, microstructure and adsorbed CO_2 on dielectric properties of $\text{Ba}_2\text{YbSbO}_6$ - BaCO_3 formed by mechanical activation of $\text{Ba}_2\text{YbSbO}_6$ by A. Barua, S. K. Dey, S. Dey and S. Kumar, Physica B 649, 414449 (2023)