

List of Research Publications (2009-2019)

List of Publications 2009

1. Neogi, S. K.; Ghosh, R.; Paul, G. K.; Bera, S. K.; Bandyopadhyay, S., Effects of Co Doping on Structural, Morphological and Transport Properties of Sol-gel AZO Thin Films, *Journal of Alloys and Compounds*, **2009**, 487, 269-273.
2. Pandit, P.; Chatterjee, N.; Halder, S.; Hota, S. K.; Patra, A.; Maiti, D. K., PhIO as a Powerful Cyclizing Reagent: Regiospecific [3+2]-Tandem Oxidative Cyclization of Imine toward Cofacially Self-Aggregated Low Molecular Mass Organic Materials. *J. Org. Chem.* **2009**, 74, 2581-2584.
3. Maiti, D. K.; Halder, S.; Pandit, P.; Chatterjee, N.; Joarder, D. D.; Pramanik, N.; Saima, Y.; Patra, A.; Maiti, P. K., Synthesis of Glycal-Based Chiral Benzimidazoles by VO(acac)₂-CeCl₃ Combo Catalyst and Their Self-Aggregated Nanostructured Materials. *J. Org. Chem.* **2009**, 74, 8086-8097.
4. Sharma, R.; Saha, R.; Nandy, S.; Bhattacharyya, S. P.; Chaudhury, P., Computation of Molecular Electronic Structure by Genetic Algorithm. *Materials and Manufacturing Processes* **2009**, 24, 155.
5. Nandy, S.; Chaudhury, P.; Bhattacharyya, S. P., Workability of a GA driven sequential search for eigenvalues and eigenvectors of a Hamiltonian with or without basis optimization. *Advances in Computational Intelligence (Springer); ASIC* **2009**, 61, 259.
6. Chaudhuri, J. R.; Chaudhury, P.; Chattopadhyay, S., Harmonic Oscillator in presence of Non-equilibrium environment. *J. Chem. Phys.* **2009**, 130, 234109.
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10. Hazra, S.; Koner, R.; Nayak, M.; Sparkes, H. A.; Howard, J. A. K.; Mohanta, S, Role of Water and Solvent in the Formation of Three Mononuclear Copper(II) Crystals: A New Type of Hydrate Isomerism in Co-ordination Chemistry. *Eur. J. Inorg. Chem.* **2009**, 4887-4894.
11. Hazra, S.; Koner, R.; Lemoine, P.; Sanudo, E. C.; Mohanta, S., Synthesis, Structure and Magnetic Properties of Heterobridged Dinuclear and Cubane Type Tetranuclear Complexes of Ni(II) Derived from a Schiff Base Ligand. *Eur. J. Inorg. Chem.* **2009**, 3458-3466
12. Majumder, S.; Koner, R.; Lemoine, P.; Nayak, M.; Ghosh, M.; Hazra, S.; Lucas, C. R.; Mohanta, S., Role of Co-ordinated Water and Hydrogen Bonding Interactions in Stabilizing Monophenoxido-Bridged Triangular Cu^{II}M^{II}Cu^{II} Compounds (M=Cu, Co, Ni or Fe) Derived

from N,N'-Ethylenebis(3-methoxysalicylaldehyde): Synthesis, Structure and Magnetic Properties. *Eur. J. Inorg. Chem.* **2009**, 3447-3457.

List of Publications, 2010

1. Paul, B. K.; Samanta, A.; Guchhait, N., Modulation of Excited State Intermolecular Proton Transfer Reaction of 1-hydro-2-naphthaldehyde in Different Supramolecular Assemblies. *Langmuir* **2010**, 26, 3214-3224.
2. Jana, A.; Majumder, S.; Carrella, L.; Nayak, M.; Weyhermueller, T.; Dutta, S.; Schollmeyer, D.; Rentschler, E.; Koner, R.; Mohanta, S., Synthesis, Structure and Magnetic Properties of Diphenoxo Bridged $\text{Cu}^{\text{II}}\text{Ln}^{\text{III}}$ and $\text{Ni}^{\text{II}}(\text{Low Spin})\text{Ln}^{\text{III}}$ Compounds Derived from a Compartmental Ligand (Ln=Ce-Yb). *Inorg. Chem.* **2010**, 49, 9012-9025.
3. Sarkar, S.; Nayek, M.; Fleck, M.; Dutta, S.; Florke, U.; Koner, R.; Mohanta, S., Synthesis, Crystal Structures and Mass Spectrometry of Mononuclear Ni(II) Inclusion Product and Self-Assembled $[2 \times 1 + 1 \times 2]$ $\text{Ni}^{\text{II}}_3\text{M}^{\text{II}}$ (M=Cu, Ni, Co, Fe or Mn) Cocrystal Derived from N,N'-Ethylenebis(3-ethoxysalicylaldehyde). *Eur. J. Inorg. Chem.* **2010**, 735-743
4. Nayak, M.; Sarkar, S.; Lemoine, P.; Sasmal, S.; Koner, R.; Sparkes, H.; Howard, J. A.; Mohanta, S., Supramolecular Dimers of Copper(II) Complexes Resulting from Design Host-Guest Interaction. *Eur. J. Inorg. Chem.* **2010**, 744-752]
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9. Maiti, D. K.; Chatterjee, N.; Pandit, P.; Hota, S. K., Generation of azomethine imine and metal-free formal 1,3-dipolar cycloaddition of imine with PhIO: reaction, scope, and synthesis. *Chem. Commun.* **2010**, 46, 2022-2024.
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11. Nandy, S.; Chaudhury, P.; Bhattacharyya, S. P., Coulomb Explosion in dicationic noble gas clusters: A Genetic Algorithm based approach to critical size estimation for the suppression of

- Coulomb Explosion and prediction of dissociation channels. *J. Chem. Phys.* **2010**, *132*, 234104.
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 13. Pal, R.; Chakraborti, A. S., Preparation of gold nanoparticle-queracetin complexes by citrate reduction method. *AIP Conference Proceedings* **2010**, *1276*, 283-287.
 14. Roy, A.; Sil, R.; Chakraborti, A. S., Non-enzymatic glycation induces structural modifications of myoglobin. *Mol. Cell Biochem.* **2010**, *338*, 105-114. Ghosh, M.; Bandyopadhyay, M.; Mukherjee, A., Genotoxicity of titanium dioxide (TiO₂) nanoparticles at two trophic levels: plant and human lymphocytes. *Chemosphere* **2010**, *81*, 1253-1262.
 15. Ghosh, M.; Mukherjee, A., Genotoxic effect of different sizes of nanosilver on human lymphocyte: A preliminary report. *Perspectives in cytology and genetics* **2010**, *11*, 297-302.
 16. Saha, S.; Sarkar, J.; Chattopadhyay, D.; Patra, S.; Chakraborty, A.; Acharya, K., Production of Silver Nanoparticles by a Phytopathogenic Fungus *Bipolaris Nodulosa* and its Antimicrobial Activity. *Digest Journal of Nanomaterials and Biostructures* **2010**, *5*, 887-895.

List of Publications, 2011

1. Das, S. K.; Das, T. D.; Dhar, S., Properties of GaAsN layers grown from melt containing Li₃N as flux for enhancing nitrogen dissolution. *Semiconductor Science and Technology* **2011**, *26*, 085028.
2. Neogi, S. K.; Karmakar, R.; Banerjee, A.; Bandyopadhyay, S.; Kumar, R.; Banerjee, A.; Mallik, A.; Sinha, T. P., Paramagnetic and complementary anti-ferromagnetic interactions in sol-gel derived Zn_{1-x}Mn_xO [50 MeV Li³⁺ irradiated (x=0.04) and unirradiated (x=0.02 & 0.04)] samples. *Radiation Effects and Defects in Solids* **2011**, *166*, 675-681.
3. Karmakar, R.; Neogi, S. K.; Banerjee, A.; Bandyopadhyay, S.; Banerjee, A.; Mallik, A.; Maity, P. K., Absence of Ferromagnetism in Mn Doped ZnO. *AIP Proc.* **2011**, *1347*, 206-209.
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7. Giri, A.; Bhowmick, M.; Pal, S.; Bandyopadhyay, A., Polymer hydrogel from carboxymethyl guar gum and carbon nanotube for sustained trans-dermal release of diclofenac sodium. *International Journal of Biological Macromolecules* **2011**, *49*, 885-893.

8. Pandit, P.; Chatterjee, N.; Maiti, D. K., First synthesis of fused-D1-pyrrolines via intramolecular 1,3-dipolar cycloaddition of ketoimine: A complete diastereoselective approach. *Chem. Commun.* **2011**, *47*, 1285-1287.
9. Pandit, P.; Gayen, K. S.; Khamarui, S.; Chatterjee, N.; Maiti, D. K., Addition of halide to p-bond directly from aqueous NaX solution: a general strategy for installation of two different functional groups. *Chem. Commun.* **2011**, *47*, 6933-6935.
10. Khamarui, S.; Sarkar, D.; Pandit, P.; Maiti, D. K., A fast and selective decarboxylative difunctionalization and cyclization for easy access to gem-dihalo alcohol, ether, ester and bromo-1,4- dioxane. *Chem. Commun.* **2011**, *47*, 12667-12669.
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12. Maiti, S.; Ray, D.; Mitra, D.; Misra, M., Study of Compostable Behavior of Jute Nano Fiber Reinforced Biocopolyester Composites in Aerobic Compost Environment. *Journal of Applied Polymer Science* **2011**, *123*, 2952-2958.
13. Maiti, S.; Mitra, D.; Ray, D., Studies on Biodegradation of Cellulose Nanofibril Reinforced Starch/PVA Biocomposite Films Using Aerobic Compost Environment. *International Journal of Nanoscience* **2011**, *10*, 1143-1146.
14. Chattopadhyay, D.; coworkers, *In Situ* Synthesis, Characterization and Antimicrobial Activity of Silver Nanoparticles using Water Soluble Polymer. *Journal of Applied Polymer Science* **2011**, *122*, 2189-2196.
15. Sharma, R.; Nandy, S.; Chaudhury, P.; Bhattacharyya, S. P., A Density-Genetic Algorithm method for computing electronic structures of doped and undoped Polythiophene Oligomers: A modified Su- Schrieffer-Heeger Hamiltonian based study. *Materials and Manufacturing Processes* **2011**, *26*, 354.
16. Guha, S.; Ray, S.; Chaudhury, P., Study of Coulomb Explosion and Dissociation Channels in dicationic Argon Clusters: A study based on Stochastic Optimization. *Structural Chemistry* **2011**, *22*, 1007.
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23. Ray Banerjee, E., Triple selectin knockout (ELP-/-) mice fail to develop OVA-induced acute asthma phenotype. *Journal of Inflammation* **2011**, *8*, 19.
24. Ray Banerjee, E.; Henderson, W. R. J., NADPH oxidase has a regulatory role in acute allergic asthma. *Journal of Advanced Laboratory Research in Biology* **2011**, *2*, 103-120.
25. Sarkar, J.; Chattopadhyay, D.; Patra, S.; Deo, S. S.; Singh, S.; Ghosh, M.; Mukherjee, A.; Acharya, K., *Alternaria Alternata* Mediated Synthesis of Protein Capped Silver Nanoparticles and their Genotoxic Activity. *Digest Journal of Nanomaterials and Biostructures* **2011**, *6*, 563-573.
26. Sarkar, J.; Saha, S.; Chattopadhyay, D.; Patra, S.; Acharya, K., Mycosynthesis of Silver Nanoparticles and Investigation of Their Antimicrobial Activity. *Journal of NanoScience, Nanoengineering & Applications* **2011**, *1*, 17-26.
27. Saha, S.; Chattopadhyay, D.; Acharya, K., Preparation of Silver Nanoparticles by Bio-reduction using *Nigrospora Oryzae* Culture Filtrate and its Antimicrobial Activity. *Digest Journal of Nanomaterials and Biostructures* **2011**, *6*, 1519-1528.
28. Maiti, P.; Khan, A.; Chattopadhyay, T.; Das, S.; Manna, K.; Bose, D.; Dey, S.; Zangrando, E.; Das, D., Dinuclear zinc(II) complexes with compartmental ligands: syntheses, structures, and bioactivities as artificial nuclease. *Journal of Coordination Chemistry* **2011**, *64*, 3817-3831.

List of Publications, 2012

1. Ghosh, S.; Brahmachari, K.; Ray, M., Experimental investigation of surface plasmon resonance using tapered cylindrical light guides with metal-dielectric interface. *Journal of Sensor Technology* **2012**, *2*, 48-54.
2. Brahmachari, K.; Ghosh, S.; Ray, M., Surface plasmon resonance based sensing of different chemical and biological samples using admittance loci method. *Photonic Sensors (Springer Open)* **2012**, DOI: 10.1007/s13320-012-0062-7.
3. Das, S. K.; Das, T. D.; Dhar, S.; Mare, M. d. I.; Krier, A., Near infrared photoluminescence observed in dilute GaSbBi alloys grown by liquid phase epitaxy. *Infrared Physics and Technology* **2012**, *55*, 156.
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16. Chattopadhyay, D.; coworkers, Synthesis of Dendritic Polyaniline Nanofibers by using Soft Template of Sodium Alginate. *Journal of Applied Polymer Science* **2012**, *123*, 1630-1635.
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19. Chattopadhyay, D.; coworkers, Synthesis of methylcellulose-silver nanocomposite and investigation of mechanical and antimicrobial properties. *Carbohydrate Polymer* **2012**, *90*, 1818-1825.
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21. Chattopadhyay, D.; coworkers, Green synthesis of silver nanoparticles using *Paederia foetida* L. leaf extract and assessment of their antimicrobial activities. *International Journal of Green Nanotechnology: Physics and Chemistry* **2012**, *3*, 230-239.
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27. Nandi, I.; Mitra, P.; Banerjee, P.; Chakrabarti, A.; Ghosh, M.; Chakrabarti, S., Ecotoxicological impact of sunlight assisted photoreduction of hexavalent chromium present in wastewater with zinc oxide nanoparticles on common *Anabaena flos-aquae*. *Ecotoxicology and Environmental Safety* **2012**, *86*, 7-12.
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44. Sinha, M.; Das, D. K.; Datta, S.; Ghosh, S.; Dey, S., Amelioration of ionizing radiation induced lipid peroxidation in mouse liver by *Moringa oleifera* Lam. leaf extract. *Indian Journal of Experimental Biology* **2012**, *50*, 209-215.
45. Dey, T. K.; Ghosh, S.; Ghosh, M.; Koley, H.; Dhar, P., Comparative study of gastrointestinal absorption of EPA & DHA rich fish oil from nano and conventional emulsion formulation in rats. *Food Research International* **2012**, *49*, 72-79.
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List of Publications, 2013

1. Brahmachari, K.; Ray, M., Effect of prism material on design of surface plasmon resonance sensor by admittance loci method. *Frontiers of Optoelectronics, (Springer)* **2013**,
2. Chowdhury, B. N.; Chattopadhyay, S., Investigation of the role of aspect ratio for the design of Si-nanowire field-effect-transistors in ballistic regime. *Nanoscience and Nanotechnology Letters* **2013**.
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