

LIST OF PUBLICATION

(I) DEPARTMENT OF PHYSICS

(II) DEPARTMENT OF CHEMISTRY

(a) International:

| Name | Title of Paper | Name of Journal/Conferences |
|------------------------|--|--|
| C. Bhattacharya | <ol style="list-style-type: none"> 1. Cathodic deposition of CdSe films from dimethyl formamide solution at optimized temperature. 2. Synthesis and characterization of electro-crystallized Cd-Sn-Se semiconductor films for application in non-aqueous Photo electrochemical solar cells. 3. Synthesis of nano-structured Cd-Se-Te films through periodic voltammetry for photo electrochemical applications 4. Studies on anodic corrosion of the electroplated CdSe in aqueous and non-aqueous media for photo electrochemical cells and characterization of the electrode/electrolyte interface. 5. Beneficial effect of anionic surfactant in chemical bath deposition of CdSe films for use in liquid junction solar cells, 6. XRD studies on CdSe based binary and ternary semiconductor films for applications in photo electrochemical solar cells 7. Synthesis and characterization of conducting polymer (polyaniline)-CdS semiconductor films for applications in PEC solar cells. | <ol style="list-style-type: none"> 1. Applied Surface Science, in press – 2006. 2. Applied Surface Science, in press - 2006. 3. Journal of Solid State Electrochemistry, in press – 2006. 4. Materials Chemistry and Physics, 89 (1) (2005) 170-175. 5. Materials Chemistry and Physics communicated-2006. 6. Thin Solid Films, communicated – 2006 7. Journal of Solid State Electrochemistry, communicated – 2006 |
| S. Naskar | <ol style="list-style-type: none"> 1. Synthesis, spectroscopic and electrochemical properties of some heteroleptic tris-chelates of ruthenium(II) involving 2,2'-bipyridine(bpy) and N-(aryl) pyridine-2-alimine(L) : X-ray crystal structures of [Ru(bpy)(L)₂](ClO₄)₂.H₂O and 3-N (4-tolyl) imidazo [1,5a] pyridinium perchlorate. 2. Ruthenium(II/III) mediated transformation of 1,2-bis(2'-pyridylmethyleneimino) benzene (L) to 2-(2'-benzimidazolyl) pyridine (L'H) and its <i>in situ</i> formed complexes with Ru(II) : X-ray structure of <i>trans</i>-[Ru(PPh₃)₂(L'H)₂](ClO₄)₂. 3. Synthesis, crystal structure determination, spectroscopic and electrochemical Studies of <i>trans</i>-[Ru(PPh₃)₂(bbpH₂)Cl]Cl.CHCl₃.H₂O (bbpH₂ = 2,6-bis(benzimidazolyl) pyridine) – an infinite double columnar supramolecule in the solid state. | <ol style="list-style-type: none"> 1. <i>Polyhedron</i>, 2005, 24, 201-208. 2. <i>Inorg. Chim. Acta</i> 2005, 358, 3115-3121. 3. <i>Transition Met. Chem.</i> 2005, 30, 352-356. |

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| | <p>4. Mononuclear and binuclear ruthenium (II) complexes with 4-(phenyl) thiosemicarbazone of benzaldehyde: A discussion on the relative stabilities of the four membered and five membered chelate rings formed by the ligand.</p> <p>5. Versatility of 2,6-diacetylpyridine (dap) hydrazones in stabilizing uncommon coordination geometry of Mn(II): Synthesis, spectroscopic, structural characterization and magnetic properties of several seven and eight coordinated Mn^{II} complexes</p> <p>6. Synthesis, spectroscopic and redox properties of some ruthenium(II) thiosemicarbazone complexes: Structural description of four of these complexes</p> <p>7. Synthesis, characterization and crystal structure of [Ni(dap(A)₂)]₂ (dap = 2,6-diacetylpyridine bis(anthraniloyl hydrazone) a molecule possessing an infinite double helical chain in the solid state</p> | <p>4. Polyhedron, 24 (2005) 1861-1868.</p> <p>5. Dalton Trans., 2005, 2428-2435.</p> <p>6. Inorg. Chim. Acta 2006, 359, 585-592.</p> <p>7. <i>Structural Chemistry</i> 2006 (accepted)</p> |
| Gourisankar Panda | <p>1. "Effects of a novel cobalt complex on multidrug resistance (mdr) in cancer."</p> <p>2. "Investigation of the Interaction of DNA with Copper(II)-Glutathione Complex".</p> <p>3. "The effects of a novel copper complex on phase II detoxification parameters and antioxidant enzymes."</p> <p>4. "B → A conformational transition of DNA under the influence of a copper-thiolate, the copper-cystein, biophysical, spectroscopic and Gel-electrophoresis study.</p> <p>5. "Synthesis, characterization and biological properties of a novel copper complex."</p> <p>6. A novel cobalt complex useful for reversal of drug resistance</p> <p>7. Metabolic Transformation and mechanism of action of Mononitroso Caffeidine – A new interpretation.</p> <p>8. "A novel copper complex induces ROS generation in doxorubicin resistant Ehrlich ascitic carcinoma cells and increases activity of antioxidant enzymes in vital organs in vivo."</p> | <p>1. Proc. of International Symposium on Chemistry Biology Interface: Synergistic New Frontiers, 21 – 26th November, 2004. New Delhi.</p> <p>2. International Symposium on Applied Bioinorganic Chemistry 2001, L-38, ISABC, 2001, Royal Society of Chemistry, Cardiff University, U.K.</p> <p>3. In Press (International Journal)– 2006.</p> <p>4. Transition Metal Chemistry, 30 (7) (2005) 884 - 888.</p> <p>5. European Journal of Medicinal Chemistry, 38 (10) (2003) 893-898.</p> <p>6. The patent office Journal, 16/09/2005, pp 21868, International Classification⁷. A61K 31/28.</p> <p>7. Endocrine, Metabolic & Immune Disorders – Drug Targets 2006, 6, 1-6.</p> <p>8. BMC Cancer, 2006, 6, 267.</p> |
| S. Haldar | <p>1. Static local field factor and ground state properties of interacting electron gas,</p> | <p>1. Acta Phys. Vol no A 106, 497(2004).</p> |

