

List of Publications:

Patents:

1. A cost effective process for the preparation of solar salt having high purity and whiteness: PCT Publication number PCT WO2007036949 dated 05/04/2007, EU 1928569 dated 11/06/2008 and US 20100143220 dated 06/10/2010.
2. 100-500 micron size spherical sodium chloride having improved flow and process of preparation from brine thereof: US Patent Application No. 12/ 205,697 dated 5 Sept 2008, The PCT patent application number PCT/IN 08/ 00568 dated 4 Sept 2008, the Indian Patent application number 060/DEL/2008 dated 7 Jan 2008 and U.S. Pat. Appl. Publ. (2009), US 2009176096 A1 20090709
3. Improved process of the preparation of common salt of high purity from brines in solar salt pans. The Indian Patent Application No. 0057/DEL/2008 dated 7th Jan 2008 and the PCT patent Application No. IN2008/000614 and U.S. Pat. Appl. Publ. (2009), US 2009175781 A1 20090709.

Papers:

1. **I. Mukhopadhyay**, M.S.S. Raghavan, M. Sharon, H.Minoura, and P. Veluchamy, Photoelectrochemical studies of photoactive lead oxide prepared by the “Potential pulse coupled potentiodynamic anodization technique” in alkaline medium, J. Electroanal. Chem., **379**, 531(1994).
2. **I. Mukhopadhyay**, M. Sharon, P.Veluchamy and H. Minoura, Photoelectrochemical studies of oxide film of PbO_n+SnO_n obtained by potentiodynamic anodization of Pb+Sn alloy electrode in alkaline medium, J. Electroanal. Chem., **401**, 139 (1996).
3. **I. Mukhopadhyay** and M. Sharon, Application of Gartner model to elucidate parameters adversely affecting photoactivity of thin film PbO in ferro-ferri cyanide electrolyte, Electrochim Acta, **42**, 67 (1996).
4. **I. Mukhopadhyay**, P. Selvam, M. Sharon, P. Veluchamy, and H. Minoura, Surface characterization of anodic films of Pb-Sn alloy electrodes: The effect of Sn on the photoelectrochemical properties, Mats. Chem. Phys., **49**, 169 (1996).
5. **I. Mukhopadhyay**, S. Ghosh and M. Sharon, Surface modification by potential delay to obtain a photoactive PbO film, Mater. Manuf. Processes, **12**, 925 (1997).
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7. M. Sharon, **I. Mukhopadhyay** and K. Mukhopadhyay, A photoelectrochemical solar cell from camphoric p-carbon semiconductor, Sol. Energy Mater., **45**, 35(1997).
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11. **I. Mukhopadhyay**, S. Ghosh and M. Sharon, Anodic oxidation of Pb-In alloy in alkaline solution: effect of In on the electrochemical and photoelectrochemical behaviour of lead oxide, *Sol. Energy Mater.*, **53**, 83 (1998).
12. M. Sharon, **I. Mukhopadhyay** and S. Ghosh, Photoelectrochemical Laser Imaging on anodically prepared alpha-PbO thin film, *J. Solidstate Electrochem.*, **3**, 141 (1999).
13. Y. Manassen, N. Ramesh Rao, **I. Mukhopadhyay**, E. Ter-Ovenesyan, and Z. Olami, Anomalous coarsening process of voids and steps on a Si(111)7X7 surface, *Phys. Rev. E*, **59**, 2664 (1999).
14. Y. Manassen, **I. Mukhopadhyay** and N. Ramesh Rao, ESR-STM on iron atoms in silicon, *Phys. Rev. B*, **61**, 16223 (2000).
15. H. Touhara, **I. Mukhopadhyay**, F. Okino, S. Kawasaki, T. Kyotani, A. Tomita and W. K. Hsu, Electrochemical Li insertion of heat treated and chemically modified multiwall carbon nanotubes, *AIP conference proceeding*, **Vol. 590**, 249-252 (2001).
16. **I. Mukhopadhyay**, J. Inahara, N. Hoshino, F. Okino, S. Kawasaki and H. Touhara, Electrochemical Li insertion in template synthesized highly aligned multiwall carbon nanotubes, *Proceedings of the Electrochemical Society*, Fullerenes for the new millennium, edited by K.M. Kadish, P. V. Kamat, D. Guldi, **PV 2001-11**, Washington, DC, Spring 2001, 15-18.
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27. Amrita Ghosh, T. Selvamani, D. Amilan Jose, Amitava Das, and **I. Mukhopadhyay**, Generation of Nanostructures by the Aggregation of Porphyrin Derivatives with Long Alkane Chain in Mix-Solvent, *Journal of Nanomaterials*, vol. 2007, Article ID 47234, 8 pages, 2007. doi:10.1155/2007.
28. **I. Mukhopadhyay** and H. Touhara Different methods of preparing electrode from single wall carbon nanotubes and their effect on the Li ion insertion process. *J. Solidstate Electrochem.* Vol. 12, 715 (2008).
29. Ajeet Singh, T. Selvamani, **Indrajit Mukhopadhyay*** and Bishwajit Ganguly* Morphology of Potassium Chloride in aqueous solution and in Formamide: An Experimental and Computational Investigation, *Can. J. Chem.* Vol. 87 (3), 514 (2009).
30. Preparations and characterization of basic magnesium carbonates using natural brine as precursor, T. Selvamani and **I. Mukhopadhyay***, *Int. J. Mat. Sci.* Vol. 4 (5), 641-648 (2009).
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35. Crystallization of Spherical Common Salt in the Submillimeter Size Range without Habit Modifier, **Indrajit Mukhopadhyay***, Vadake. P. Mohandas, Girish R. Desale, A. Chaudhary, and Pushpito K. Ghosh*, Ind. Engg. Chem. Res. 49 (23), 12197-12203, 2010.
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