



Dr. Bankim Chandra Tripathy
Senior Scientist, CSIR-IMMT
& Assistant Professor, AcSIR

CSIR
Council of Scientific and Industrial Research

AcSIR | Academy of
Scientific & Innovative Research



Date of Birth

28 February 1970

Academic Credentials

- B. Sc. Chemistry (1990),
- M. Sc. Chemistry (1992),
- PhD. Chemistry (2000),
(Applied Electrochemistry)

Research Accomplishments

Research Publications: SCI Journals: 52, Conferences: 22, Patents: 3

PhD Guidance: 5 (in progress)

Reviewer of Journals

Journal of Applied Electrochemistry, Journal of Materials Science, Hydrometallurgy, Journal of Alloy and Compounds, International Journal of Mineral Processing, Brazilian Journal of Chemical Engineering

Research Interests

- Hydrometallurgy (Treatment of primary and secondary sources / waste materials)
- Electrometallurgy (Electrowinning/electrocrystallisation of metals from synthetic/leach liquors).
- Synthesis of battery grade materials such as Ni(OH)₂ and EMD
- Precipitation of gibbsite, boehmite and production of activated alumina
- Advance materials for Catalytic applications
- Application of Ionic liquids in Hydro and Electrometallurgy
- Alumina and potash production from Nepheline Seynite – a non-bauxitic raw material
- Development of materials for carbon dioxide sequestration

Life Membership

- Orissa Chemical Society (OCS)
- Indian Society for Electro Analytical Chemistry (ISEAC)
- Indian Institute of Metals (IIM)
- Indian Institute of Minerals Engineer (IIME)
- Association of Separation Scientists & Technologies (ASSET)

Projects

- Effect of additives on metal electrowinning (DETYA, Australia) – Member
- Treatment of waste aluminium dross oxide (Ministry of Environment and Forests, Government of India, New Delhi) – Member
- Experimental procedure: Manganese metal production (Bateman Engineering, South Africa) – EW Area leader
- Test work for preparing copper starter sheet by electrowinning (HATCH, South Africa) – Project Leader
- Nickel Laterite laboratory test work (Oriental Resources PLC, United Kingdom) – EW area leader
- Direct electrowinning of cobalt from simulated leach liquor (MINTEK, South Africa) – Post Doctoral Research
- Recovery of copper from slag tailings (Aditya Birla Science and Technology Company, Mumbai) – Project Leader
- Extraction of Alumina from 'Nepheline Syenite' - A non-bauxite raw material – DST, New Delhi – Member
- Recovery of alumina in Nalco fly ash through pyrohydrometallurgical and bio-processing methods – NALCO, Bhubaneswar – Member

Awards & Honours

- CSIR (Council of Scientific and Industrial Research) – UGC (University Grant Commission) Fellowship for Doctoral Research (December 1993)
- Postdoctoral Fellow, Hydrometallurgy Division, MINTEK, South Africa (January-December, 2007)
- Visiting Research Fellow, Department of Chemistry, Murdoch University, Australia – 6150 (May 1995 - January 1996)
- Visiting Scientist, Division of Mineral Products, CSIRO, Melbourne, Australia – 6032 (September – November, 1995)
- Visiting Research Associate, Department of Chemistry, Murdoch University, Australia (July 1999 – April 2001)
- Member Advisory Committee, National Conference on Carbon Dioxide Capture, storage and recycling (CCSR-2013), Bhubaneswar
- Chairman - Technical Session III, National Conference on Carbon Dioxide Capture, storage and recycling (CCSR-2013), Bhubaneswar

Recent Publications

- **Metallurgical Transactions E**, Effect of non-ionic surfactants and its role on K intercalation in electrolytic manganese dioxide (2014) (In press)
- **Hydrometallurgy**, Copper electrodeposition from sulfate solutions – Effects of selenium, 2014, Vol. 146, pp 8-14.
- **Journal of the Taiwan Institute of Chemical Engineers**, Effect of urea on decomposition of sodium aluminate solution, 2014, Vol. 45, pp 815-822
- **Journal of Solid State Electrochemistry**, Electrodeposition of manganese dioxide:effect of quaternary amines, 2013, Vol 17, pp 1349–1356
- **Journal of Solid State Electrochemistry**, Influence of the microstructure and its stability on the electrochemical properties of EMD produced from a range of precursors, 2013, Vol 17(12), pp 3191-3198
- **Hydrometallurgy**, Behaviour of arsenic(III) and antimony(III) during electrowinning of nickel from aqueous sulphate solutions, 2013, Vol.139, pp 39-45
- **Hydrometallurgy**, Influence of alternative alkali reagents on Fe removal during recovery of Mn as Electrolytic Manganese Dioxide (EMD) from Mn sludge 2013, Vol 140, pp 151–162
- **Transaction of Non Ferrous Metal Society of China**, Synthesis and characterization of fibrous nickel hydroxide obtained from nickel spent catalyst, 2013, 23(10) pp 2977-2983
- **Hydrometallurgy**, Electrowinning of cadmium from sulphate solutions - Role of magnafloc and zinc, 2012, Vol. 117–118, pp 13–17
- **Desalination and water treatment**, An evaluation of cadmium sorption potential of waste aluminium dross, 2012, Vol. 50, pp 360-366

Contact Details

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