
NEW MEMBERS OF THE EDITORIAL BOARD



Dr. (Mrs) Shashi Anand

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Professional details:

Joined Regional Research Laboratory (Now Institute of Minerals and Materials Technology) in April 1977. Joined as Scientist in Aug 1980 and continued in various grades till Dec. 2008. Was Adj. Prof (off campus) in Faculty of Minerals and Energy, Murdoch University, Western Australia from May 2009 to May 2012. Presently guiding Ph.D students at IIMT. Experience in various fields is briefly mentioned below:

Hydrometallurgy

Development of new techniques for processing lean, low grade ores, industrial wastes and secondary materials for extraction of metals especially Cu, Ni, Co, Zn, Mg and Mn. Development of processes based on aqueous reduction/oxidation for treatment of oxidic and sulphidic materials in ammoniacal as well as acid medium with special reference to the processes for ocean nodules, copper converter slag, zinc leach residue, copper residues, spent nickel catalyst, cobalt sludge, cobalt bearing slags, chromite mine overburden, complex Cu-Zn-Pb sulphide ores, low grade manganese ores etc. Development of high pressure acid and ammonia leach processes are other areas of interest. Worked on development of flow-sheets for recovery of metal salts like cobalt carbonate/ cobalt sulphate, manganese carbonate/sulphate, magnesium sulphate hepta hydrate and copper sulphate from ores/waste/secondary sources. Studies on stability of iron oxides at high temperatures and solution chemistry of metal amines have been of interest.

Nano materials

During the last one and half decades along with hydrometallurgical process development, synthesis of fine and nano-particles has also been my area of active research. Some of the work

on nano synthesis includes ferrites, aluminates, nickel hydroxide, iron oxides / hydroxides / oxyhydroxides, composites, pure and doped barium titanates following new and innovative techniques. Study of magnetic and piezoelectric properties of nano particles is another area of my interest.

Environmental Science

Actively associated with the development of super absorbers for remediation of toxic anions and cations. Special attention has been focussed on removal of arsenic and fluoride, Pb(II), Cd(II), Zn(II) and Cu(II) from aqueous solutions.

During the long research career, main interest had been to work on projects sponsored by private and public sectors and look into the industrial problems. Worked in more than forty projects and co-authored 90 technical reports. Some of the financiers for projects include Sandvic Asia, Rabamin Ltd, Shailna Trading Company, Wajidsons and Wajidsons, Hydromet India, Nicomet Industries Ltd, Rajeshwari Metallurgical, East coast Smelting and Refining Ltd., Tata Steel, National Mineral Development Corporation, Gujarat Mineral Development, PPCL, Indian Rare Earths, Department of Ocean Development (now Ministry of Earth Sciences), Department of Science and Technology, Ministry of Environment and Forests, Ministry of Alternate Energy Sources, etc. Collaborative work with Murdoch University, Western Australia, KIGAM, Korea and GTZ Germany.

Membership of professional bodies

Life Member of Indian Institute of Metals
Life Member of Institution of Chemical Engineers
Life Member of Catalysis Society of India
Life Member of Indian Institute of Mineral Engineers
Fellow member of SAEST

A number of research papers were given best paper / poster / presentation awards and were among the Top 25 list in Elsevier Journals.

Publications in National and International journals 168
Papers in proceedings of National and International conferences 48
Indian patents 14
International patent 1

Member of Editorial Board

- (i) Member of Editorial Board of European Journal of Mineral Processing and Environment Protection.
- (ii) Co-Editor, Metal News 2003-2005, A publication of Indian Institute of Metals, Kolkatta, India.