



Dr. Amit Kumar Sen, Professor

Academic achievements: Throughout first division/class academic record starting from Higher Secondary to M.Sc.Tech. Obtained first, second and third rank in M.Sc.Tech. (Mineral Exploration), M.Sc. (Applied Geology) and B.Sc. (Hons. in Applied Geology) respectively. Ph.D. in Applied Geology from Indian School of Mines, Dhanbad in 1987 and the title of the thesis was "Geology of Ultramafic Alkaline Carbonatite Complex and Associated Mineralization in the Sung Valley, Khasi and Jaintia Hill Districts, Meghalaya, India".

Teaching Experience: More than thirty years' teaching experience in mainly Post-graduate level. The subjects taught are Geology of Mineral Deposits, Geoexploration, Economic Geology, Mineral Exploration, Indian Mineral Deposits & Mineral Economics.

Current Research Activities: i) Petrology, geochemistry and ore/mineral potential of carbonatite and related rocks. ii) Study of primary source of PGE in the Sukinda Chromite belt, Orissa iii) Exploration of Uranium in Sonrai Basin, iv) Geodynamics of Shillong Plateau and adjoining area and v) Fluid inclusion studies.

Research Project: Research Projects sponsored by AICTE, CSIR, DST & BRNS, UGC-DAE

Thesis supervision: i) Ph.D.: 3 (completed), 4 (ongoing), ii) M.Tech./M.Sc.: 28 (Completed), 6 (on going)

Short Term courses conducted: Convener International Course on "Modern Technologies for Mineral Resources Assessment and Management" – 20.12.95 – 13.01.96.

Professional Experience: More than one and half years' experience in detailed exploration of coal in Jharia Coalfield while in Mineral Exploration Corporation Ltd. (A Govt. of India U/T). This experience has been enormously helpful in teaching and also training the students in the field.

Awards/Distinctions: i) Recipient of Govt. of India Scholarship for Study Abroad for post-doctoral research and visited Department of Geology, University of Leicester, Leicester, UK from January 1991 for one year as a Honorary Research Fellow and worked with Dr. M.J. Le Bas, a very well known person in the field of petrology of carbonatite and related rocks. ii) Recipient of University of Roorkee Annual Khosla Award 1989 - a gold plated silver medal and Rs. 2500/- (jointly with Prof. R.P. Gupta, Department of Earth Sciences, University of Roorkee).

Other responsibilities in the Institute: i) Chief Warden, ii) Chief Advisor of the Himalayan Explorers' Club.

Publication in Professional Journals

1. Gupta, R.P. and **Sen, A.K.** (1988) Imprints of the Ninety-East Ridge in the Shillong Plateau, Indian Shield. *Tectonophysics*, 154, 335-341.
2. Jaireth, S., **Sen, A.K.** and Varma, O.P. (1991) Fluid Inclusion Studies in Apatite of the Sung valley Carbonatite Complex, N.E. India: Evidence from Melt-Fluid Immiscibility. *Jour. Geol. Soc. Ind.*, 37, 547-559.
3. **Sen, A.K.** (1999) Origin of the Sung Valley carbonatite complex, Meghalaya, India: Major Element Geochemistry Constrains. *Jour. Geol. Soc. Ind.*, 53, 285-297.
4. Harijan, N., **Sen, A.K.**, Sarkar, S., Das, J.D. and Kanungo, D.P. (2003) Geomorphotectonics around the Sung Valley Carbonatite Complex, Shillong Plateau, Northeast India : A Remote Sensing and GIS Approach. *Jour. Geol. Soc. Ind.*, 62, 103-109.
5. **Sen, A.K.**, Sharma, P.K., Mohanty, D. and Ghosh, T.K. (2005) Composition of Cr-spinel – an ore genetic indicator of Kathpal Chromite Deposit, Sukinda Ultramafic Complex, Orissa, India. *Current Science*, 88, 1547-1550.
6. Saini, Ravi K., Chakrapani, G.J. and **Sen, A.K.** (2006) Geochemical Studies of Groundwater in Saharanpur, Uttar Pradesh. *Jour. Geol. Soc. Ind.*, 68, 50-58.
7. Mohanty, D. and **Sen, A.K.** (2008) PGE Mineralization in Kathpal Chromites, Sukinda Ultramafic Complex, Orissa, India. *The Indian Mineralogist*, 42 (1), 62-70.
8. Chakrabarty, A., **Sen A.K.**, Ghosh, T.K. (2009) Amphibole—a key indicator mineral for petrogenesis of the Purulia carbonatite, West Bengal, India. *Miner. Petrol*, 95, 105-112.
9. Chakrabarty, A. and **Sen, A. K.** (2010) Enigmatic Association of the Carbonatite and Alkali-pyroxenite along the Northern Shear Zone, Purulia, West Bengal: A Saga of Primary Magmatic Carbonatite, *Jour. Geol. Soc. Ind.*, 76, 403-413.
10. Chakrabarty, A., Pruseth, K. L. and **Sen, A. K.** (2011) First Report of Eudialyte Occurrence from the Sushina Hill Region, Purulia District, West Bengal, *Jour. Geol. Soc. Ind.*, 77, 12-16.
11. Pande, H., **Sen, A. K.** and Garg, R. D. (2011) Identification of Open Cast Mining Areas using CARTOSAT-I: A Case Study of Jharia Coal Fields, *Asian Jour. Earth Sci.*, 4, 29-37.
12. Tiwari, P. S., **Sen, A. K.** and Garg, R. D. (2011) Application of DPCA Technique in Khetri Copper Belt, India for Alteration Zones, *Asian Jour. Earth Sci.*, 4, 54-59.
13. Misra, A., Mohanty, D. and **Sen, A. K.** (2011) Landsat ETM+ Image Analysis for Alteration Mapping in Sukinda Chromite Deposit, Orissa: Case of a Vegetated Mineralized Region, *Int. Jour. Earth Sci. and Engg.*, 4, 30-38.
14. Chakrabarty, A., **Sen, A.K.**, von Quad, A. and Heinrich, C. A. (2011) Petrogenesis of the Purulia Carbonatite, West Bengal (India), Based on Trace Composition of Apatite. *Jour. Ind. Geol. Cong.* 3, 7-16.
15. Chakrabarty, A., Pruseth, K. L. and **Sen, A. K.** (2012) Compositions and Petrogenetic Significance of the Eudialyte Group Minerals from Sushina, Purulia, India. *Jour. Geol. Soc. Ind.*, 79, 449-459.