



Dr. U. K. Pandey,

Dr. G. R. Udas - Dr. K. K. Dwivedy Medal

During the last 10 years Dr. U.K. Pandey has been working as Scientist in the Geochronology laboratory, Atomic Minerals Directorate for Exploration and Research (AMD), Hyderabad. He has more than twenty two years of experience in the field of Geochronological–Isotope Geochemical studies using Thermal Ionisation Mass Spectrometer (TIMS) and has generated a huge amount of geochronological data with respect to Rb-Sr, Sm-Nd, Pb-Pb and U-Pb systematics, by dating rocks and minerals from various uranium exploration areas, which has helped uranium exploration programme of AMD. The contribution of Dr. Pandey has played a vital role in fixing the age of several Indian Proterozoic basins viz. Gwalior, Bijawar, Chhattisgarh and Cuddapah basins. He has immensely contributed in establishing the age and understanding of the genetic aspect of mineralisation of stratabound, syn-diagenetic uranium mineralization in the Vempalle dolomites, Cuddapah Supergroup using Pb-Pb (PbSL) systematics and C and O isotopic studies. The multi method (U-Pb, Pb-Pb and Sm-Nd) geochronological and isotope geochemical studies, on pure uraninites and davidite mineral from hydrothermal vein type uranium mineralization associated with albitites, hosted by the Delhi Supergroup of rocks, BGC, in Rohil, Ghateshwar, Jahaz, Hurra Ki Dhani and Bichun areas, NDFB, Rajasthan, has helped in constraining the age of uranium mineralisation as well as inferring the source of uranium. The above study also established the versatility of PbSL (Pb sequential leaching) technique in dating various type of mineralised as well as non-mineralised samples without mineral separation and dating of rock forming minerals as well viz. age of uranium mineralisation/diagenesis by dating mineralised/non-mineralised dolomites from Tummallapalle, Kadapa, A.P., age of uranium mineralisation in a high grade granulitic from Peddur, Karimnagar Granulite Belt, Eastern Dharwar Craton, age of uranium mineralisation and metamorphism in NDFB, Rajasthan dating mineralised cores and garnet. Hydrothermal activity in the albitite belt was identified by him based on sulphur isotopic studies on pyrites from the Rohil uranium deposit. Geochronological studies carried out by him on granites occurring as the basement to various Proterozoic Basins of India as well as mafic intrusives within them has contributed in understanding the age, genesis and their role in uranium exploration. Apart from this he was also associated with the dating of monazite and zircon from the beach placers of Tamil Nadu and Kerala and correlated it with hinterland and provenances. Till date he has published 34 papers on Geochronology-Isotope Geochemistry, Geochemistry, Mineralogy and Petrology. Out of which 22 full papers were published in reputed peer reviewed National/International Journals and 12 were presented and abstracted in National/International Seminars.

Dr. Pandey is a Life Member of the Indian Society for Applied Geochemists, Life Member of Indian Society of Mass Spectrometry, Life member of Indian Nuclear Society, Fellow of Geological Society of India, Faculty to UCESS, M. Tech. Programme of University of Hyderabad, Faculty to BARC Training School (AMD Complex, Hyderabad) and Guest Faculty to the Geological Survey of India, Hyderabad.

He has been awarded with “JGSI- Radhakrishnan Prize” in 2013 for the best paper published in the Journal of Geological Society of India during the year 2012.