

BOOK REVIEW

RECENT DEVELOPMENTS IN GEOLOGY AND MINERAL RESOURCES OF CENTRAL INDIA. A.M. Pophare and D. B. Malpe (Editors). Gondwana Geological Magazine, Special Volume No.10, 2007, Pages:292+vi; Price: Rs.1000/-

Understanding the Precambrian crustal evolution is essential for us as it provides insight into the physical forces that have driven earliest part of the hotter mantle materials to the surface that eventually cooled to form the first solid blocks – the cratons. Of the four cratonic blocks in India, we have fairly good knowledge about the early history of the earth from Dharwar, Singhbhum and Aravalli cratons. Equally important Central Indian Craton remained neglected. More information on this region is required for better utilization of the mineral resources like iron, coal magnesite, copper, bauxite, limestone, diamonds among host of the other minerals richly endowed in this part of the country. The editors A.M. Pophare and D.B. Malpe have collated 37 papers presented at national symposium on “Role of Geology in the Development of Central India: a retrospective and potential” held on 27th and 28th December 2006. The symposium was organized on the occasion of diamond jubilee of the Geology Department at Nagpur, under Rashtrasant Tukdoji Maharaj Nagpur University.

Regional review on focal theme ‘crustal evolution and metallogeny of central Indian craton’ are covered by four papers (one each by K.L. Rai, D.B. Yedekar, V. Divakar Rao and R.N. Meshram). Emplacement of mafic/ultramafic rocks in Central Indian Tectonic Zone is the topic of the paper by A. Roy and K. Chakraborti. There are ten papers on petrological aspects of different rock types of Central India. These include metamorphism of Sukma supracrustals (S.S. Thakur and S.C. Patel), geochemistry of Mohar granite (A.R. Mukhopadhyaya and others) and Mul granite (K.Sashidharan), Amgaon Gneissic Complex (N. Wanjari and T. Ahmed), migmatites, granites and supracrustals of Kudalkatter area, Sindhudurg district (S.K.Tripathy and others), Malanjkhanda granitoids (D.B. Sikka and others), Bole Horizon in Deccan Trap (K.K.K. Nair), Deccan Traps of Ghatanji-Realgaon Sector (A.K. Chatterjee and others), and laterites (C. J. Radhakrishnan and others). A significantly large number of papers are related to uranium and rare earth mineralisation in Central India. These includes a review on present status and future potentials of atomic mineral resources of Central India (M. K. Roy), uranium mineralisation in Chattisgarh Basin (M.S.M. Deshpande and others), REE-bearing acid rocks of Alech Hills, Gujarat

(R. Banerjee and others) columbite-tantalite bearing Siri River Placers, Chattisgarh (C. Sarbajna and others), xenotime concentrate around Darba, Bastar district (Yamuna Singh), uraniferous rocks of Jihrapa-Bandhi area, Chhindwara district (S.K. Jain and others), unconformity-related uranium mineralisation in Raigarh district (K. Shobita and others), radio elements in basement crystallines and Khariar sediments (I. Patra and others), REE in soil around Tirka area, Gondia district, Maharashtra (K. Shobita and others) and rare metal mineralisation around Kotwalpara areas, Dantewada district, Chhattisgarh (K.S. Mishra and others). Four papers report basemetal and gold mineralisation. These are from Tirka area (P.K. Raut), Bagda-Sawasri area (V.K. Khadse and G.S. Sitaram), Pandripani area (S.N. Upadhye) and Sambalpur granitoids (R.S. Yadeva and others). An overview on coal bed methane (A.M. Pophare and A.M. Varade) and a paper on beneficiation of coal from Wardha Valley Coalfield (R.L. Katley and others) also figure in the volume. There are three papers on geophysical surveys. These are on magnetostratigraphy of the Quaternary sediments (S.J. Sangode and others), geophysical signatures of Sakoli and Betul belts (K. Venkat Rao) and geo-electric and EM surveys for uranium exploration (B.V.L. Kumar and others). A paper by C.L. Pitale presents the outline of the UN framework classification of mineral resources and its application to National Mineral Inventory of India. A lone paper on the paleontological aspects is on size estimation of *Elephas* from Quaternary Deposits, Devakachhar, Narsinghpur district, M.P. (S.N. Meshram).

The papers in general provide information on the newer mineral prospects, few of which are interesting from the point of view of their economic viability in the future. New information, particularly on advance petrological aspects including geochronology, on this vast cratonic region is needed. Despite this drawback, excellent production with refreshingly good photographs and line sketches makes this volume very attractive. I recommend this publication to both academicians and professionals who have interest in geology and mineral resources of Central India.

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