

B. Madhusudan RAO, R. SANDHYA, M. R. GOUTHAM and B. V. S. MURTHY, 2016. Palaeomagnetic and Rockmagnetic Behaviour of Dykes from Hyderabad Granitic Region, Part of Eastern Dharwar Craton, Southern India. *Acta Geologica Sinica* (English Edition), 90 (supp. 1): 41.

Palaeomagnetic and Rockmagnetic Behaviour of Dykes from Hyderabad Granitic Region, Part of Eastern Dharwar Craton, Southern India

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The dykes intruding the Hyderabad Granitic Region (HGR) which forms the part of eastern Dharwar Craton extending between northern and northwestern margins of the Cuddapah Basin and western margin of the Pakhal Basin (Pranhita-Godavari Basin) and southwestern margin of the Deccan Volcanic Province (DVP) were studied with an aim to determine their magnetization behavior and to deduce reliable palaeomagnetic pole for Indian subcontinent for the period of their emplacement

IRM studies indicate that the magnetic carrier in these rocks is magnetite except for Jaapala area, indicating alteration of magnetic mineralogy in the specimens.

All the specimens show Q_n ratio between 2.8 and 113.29 with an average values of 43.29. This distribution

of Q_n ratio (between 2.8 and 113.29) in large number of specimens is suggestive of retaining of the original magnetization in most of the dykes

The palaeolatitudes for the rocks under study also fit in the same range and located between 21.01°S and 25.54°N as proposed by another independent study. This distribution of palaeolatitudes shows that Indian subcontinent has drifted from southern hemisphere to northern hemisphere by travelling about 46.55 latitudes.

Palaeomagnetic poles presented for the period of the emplacement of the dykes under study. Besides, AMS results are provided as a complementary work to understand the emplacement mechanism of these dykes.

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