Title: Environmental Magnetic Studies Along The Parad Sediment Section, Purna Basin, Deccan Volcanic Province, India

Presented by: Saurabh Sawant

Abstract:

In this study, the first and preliminary environmental magnetic record of Parad section in the Purna Basin, DVP was discussed. We determined environmental magnetic properties and interparametric ratios (χ_{lf}, χ_{fd}%, ARM, SIRM, ARM/SIRM, ARM/χ_{lf}, SIRM/χ_{lf}, S-ratio, Soft IRM, and HIRM) for sediment samples of a ~3 m section from Parad sediment section. The magnetic minerals are mainly detrital and catchment-derived, as there is no evidence for the presence of authigenic greigite, bacterial magnetite, or diagenetic dissolution. The bottom of the section is characterized by a high concentration of magnetic minerals (high values of χ_{lf}, SIRM, etc.) and coarse magnetic grain size (low ARM/SIRM and ARM/ χ_{lf} values). The investigation also show that the top of the Parad sediment section is characterized by the low values of magnetic susceptibility which is primarily contributed by fine-grained titanomagnetite. Further investigation of detailed Environmental magnetic record is required along with ^{14}C dates for the paleoclimatic interpretation of the Parad Section.

REFERENCES

1. Liu, Q., Roberts, A. P., Larrasoaa, J. C., Banerjee, S. K., Guyodo, Y., Tauxe, L., & Oldfield, F. (2012). Environmental magnetism: Principles and applications. *Reviews of Geophysics*, *50*(4). https://doi.org/10.1029/2012RG000393
2. Oldfield, F., Walden, J., Smith, J., & Britain), Q. R. A. (Great. (1999). *Environmental Magnetism: A Practical Guide*. Quaternary Research Association. https://books.google.co.in/books?id=lPRNAQAAIAAJ
3. Thompson, R. (2012). *Environmental Magnetism*. Springer Netherlands. https://books.google.co.in/books?id=H-klBAAAQBAJ