

ANNALS OF DECCAN TRAPS STUDY AND BIBLIOGRAPHY ON DECCAN TRAPS, Special Publication No.38, Geological Survey of India, (1996). Pt.1; pp. 300 and Pt.2;pp. 92. Price Rs.260/- ; \$94.

The Deccan volcanic episode is a unique event in the geological history of India. This vast spread of lava covering over 500,000 km² and an exposed thickness of over 2 km has attracted the attention of almost every one of the veterans of Indian Geology commencing from Blanford in 1867, followed by other giants like Medlicott, Middlemiss, Foote, Pramatha Nath Bose, Hayden, Fox, Fermor and Krishnan, all of the Geological Survey of India.

The present volume entitled 'Annals of Deccan Trap Study' contains certain randomly selected papers of the early pioneers. A brief summary, introducing the volume with specific mention of the importance of each of the contribution extracted would have added to the value of the work. It nevertheless provides a guide to some of the papers which are not easily accessible to workers. The compilation therefore is particularly welcome.

The valuable part of this Special Publication is the second part which furnishes a classified list of 1230 references on Deccan volcanic activity.

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METAMORPHIC PHASE EQUILIBRIA AND PRESSURE-TEMPERATURE-TIME PATHS. FRANK S. SPEAR, Mineralogical Society of America (Monograph), September, 1993; pp.799.

This is a book many metamorphic petrologists have been waiting for. Dr. Frank Spear has made an excellent presentation and integration of the diverse topics on Metamorphic Petrology, together with applications and the recent developments.

Frank Spear, who is at the Rensselaer Polytechnic Institute at Troy, New York, has organised his material into twenty one chapters. Most of the chapters begin with succinct introduction or an overview which also supplies the reason for the sequence of what follows, and ends with a concluding note. With each chapter there are well chosen examples/exercises, and a few selected references for further reading. A very valuable aspect of Spear's book is its integration of application of thermodynamics to phase equilibria, geothermobarometry, mineral zoning, fluid-rock interaction studies, thermochronology, P-T-t paths that help to constrain the evolution of metamorphic terranes. Bringing together topics that are frequently distributed among several textbooks, it helps students to take a more unified approach to their metamorphic petrology studies.

Chapter 1 is an introduction that deals with the broader aspects of metamorphism and dynamic metamorphic processes. This chapter is comprehensive and logically structured. Chapter 2 describes the progressive metamorphic facies in common rock types in the light of plate tectonic concept. Chapter 3 focuses on the fundamental principles of heat flow in the crust and makes qualitative assessment of the thermal perturbations in the crust in response to orogenic events. Basic heat flow equations used in thermal modelling are given in this chapter. Chapter 4 provides an informative review on the crystal chemistry of