

GROUP DISCUSSION ON INDIAN DYKES

A DST-sponsored Group Discussion Meeting on Indian Dykes was organized during 18-19 March, 2006 at the Department of Geology, Banaras Hindu University, Varanasi. About 60 scientists from more than 17 institutions took part in the meeting. The purpose of this meeting was to bring together specialists in volcanology, petrology, geochemistry, geophysics, tectonics and geochronology to discuss different aspects of dykes and other sheeted intrusions in the context of the proposed 6th International Dyke Conference (IDC-6) to be held in India in 2010. Thus, the prime objective of the meeting was (i) to evaluate the present status of research on dyke rocks of Peninsular India and decide thrust areas for these intrusive rocks, (ii) organization of field trips during the IDC-6 and (iii) venue and time for the IDC-6. Dr. M. Ramakrishnan, formerly of the Geological Survey of India was the Chief Guest and Dr. Ch. Sivaji represented the DST. Prof. Rajesh K. Srivastava of BHU, Varanasi organised the meet as its convener.

The two-day deliberations took stock of the work carried out so far on Indian dykes and the gap areas where more focussed research work has to be undertaken on priority basis.

Following are the major recommendations that emerged from the Group Discussion meeting on Indian Dykes.

- 1 Sixth International Dyke Conference (IDC-6) will be held at Department of Geology, Banaras Hindu University during 4-7 February, 2010.
- 2 Pre-conference field-trips will be terminated in Varanasi during the day on 4 February 2010 and post-conference field-trips will begin on 7th February 2010 after the concluding session.
- 3 The Geological Society of India, Bangalore will be the principal technical sponsor and Department of Science and Technology, New Delhi will be the principal financial sponsor for IDC-6.
- 4 Organizing committee of IDC-6 will include Dr. B. P. Radhakrishna, President, Geological Society of India, Secretaries of Ministry of Science and Technology and Ministry of Mines, Government of India, Director General, Geological Survey of India, Vice-chancellor, Banaras Hindu University, Prof. Rajesh K. Srivastava as a Principal Convener, and Dr. T. Radhakrishna, Prof. Talat Ahmad, and Dr. Ch. Sivaji as Conveners.
- 5 There will also be National and International advisory committees.
- 6 It is proposed to organize two pre-conference field-trips (one around the Cuddapah Basin and other around Karnataka and Kerala) and three post-conference field-trips (around Himalayan region, Deccan Province and Bundelkhand-North Bastar craton).
- 7 Seminar Proceedings of IDC-6 will be published by A. A. Balkema, Rotterdam, as has been the case with the last four volumes. The last date for submitting full MSs for this volume will be 4th February 2010.
- 8 For field-trip guides, Geological Society of India, Bangalore should be requested to publish all the IDC-6 field guides.
- 9 Efforts should be made to prepare the Dyke Map of India and compiling the classical work done on the dyke rocks of India before the beginning of the conference in 2010. For this purpose, Dr. K. S. Misra has been asked to take the responsibility to prepare the Dyke Map of India and Prof. Rajesh Srivastava and Dr. Ch. Sivaji to take responsibility to complete the work done on the dyke rocks of India.

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10 - CARAT SYNTHETIC DIAMOND

A 10-carat synthetic diamond has been produced in the Geophysics Laboratory of the Carnegie Institution, Washington by Chih-Shine Yan and her colleagues (2004-2005 Year Book, Carnegie Institution of Washington, pp 24-25).

A process termed as Chemical Vapour Deposition (CVD) has been utilized for the purpose. A seed diamond which is

placed in a chamber in an atmosphere of methane and hydrogen is bombarded with intense microwaves. This results in a plasma of carbon "rain" facilitating the carbon atoms to crystallize in diamond structure and grow around the seed. The highest growth rate achieved by the team is 300 micrometers per hour and efforts are on to grow diamonds of 100 carats! — *M. S. Rao*