

Third SERC School in Atomic and Molecular Physics

The third SERC school on Atomic and Molecular Physics (III SERC SAMP'95) was held at CAT during December 11 to 30, 1995. It was organised by the Science and Engineering Research Council of the Department of Science and Technology. About 25 young scientists from all over India attended the school. During the three week school about 60 lectures were delivered by eminent scientists on various aspects of photon - atom/ molecule interaction. The school was inaugurated by Dr B A Dasannacharya, Director, Solid State and Spectroscopy group, BARC, Bombay. Prof S K Mitra, Chairman, SERC planning committee highlighted the role of SERC schools in motivating young scientists for research in frontline areas and promoting collaboration between different

institutes in the country. Dr D D Bhawalkar, Director, CAT gave the presidential address. He described the facilities available at present at CAT and those expected in the near future. The school Directors were Dr S A Ahmed, BARC, Bombay and Dr Vijay Kumar, PRL, Ahmedabad.

Seminar on Construction features of Indus-1 building

A seminar to highlight the constructional features of Indus-1 building was jointly organised by Institute of Engineers (I) and Marathi Engineers, Indore on November 28, 1995 at CAT Guest House. It was attended by about 200 Engineers. The seminar was presided over by Dr J P Shrivastava, Director, SGSITS. Key note address was delivered by Shri V K Kulkarni. Others who spoke at seminar were Dr J P Shrivastava and Dr D D Bhawalkar, Director, CAT.

PUBLICATIONS

Books

1. "Microwave, infrared and laser transitions of methanol: Atlas of assigned lines from 0-1258 cm^{-1} ", G Moruzzi, B P Winnewisser, M Winnewisser, I Mukhopadhyay and F Strumia, CRC Press, Florida, USA, ISBN 0-8493-2478-5 (1995).
2. "Proc. of CAT-CERN accelerator school on advanced physics and technology course", Ed. S S Ramamurthi and L M Rangarajan, Vol.1 (1995).

In Journals

1. "Magnetic relaxation in UCu_2Ge_2 ", S B Roy, A K Pradhan, P Chaddah and B R Coles, *Physica B* **206-207**, 498 (1995).
2. "High-magnetic field transport properties and irreversibility line of single crystal (2212) and ceramics of BPSCCO (2223)", A K Pradhan, C Chen and B M Wanklyn, *Physica C* **251**, 405 (1995).
3. " H_{c1} measurements using hysteresis in magneto resistance of sintered YBaCuO ", A K Pradhan, S B Roy, S Kumar, P Chaddah, R Prasad and N C Soni, *App. Superconductivity*, **2**, 223 (1995).
4. "Low-field ac magnetization of granular high- T_c superconductors", Mahesh Chandran and P Chaddah, *Supercond. Sci. Tech.* **8**, 774 (1995).
5. "Anomalous magnetic behaviour of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$ single crystals near the superconducting transition

- regime", A K Pradhan, S B Roy, P Chaddah, C Chen and B M Wanklyn, *Phys.Rev. B* **52**, 6215 (1995).
6. "Effect of sample shape on the low-field magnetisation peak in a C_{15} laves phase superconductor", S B Roy, A K Pradhan and P Chaddah, *Physica C* **253**, 191 (1995).
7. "Geometry effect on the non-linear magnetic response of $\text{YBa}_2\text{Cu}_3\text{O}_7$ ", P Batham, S B Roy, S Kumar, A K Pradhan, A K Grover, P Chaddah, R Prasad and N C Soni, *Pramana - J.Phys.* **45**, 261 (1995).
8. "Magnetic anomaly and the peak effect in superconducting C_3Ru_2 ", S B Roy, A K Pradhan and P Chaddah, *Phys.Rev. B* **52**, R9847 (1995).
9. "Flux penetration in thin elliptic superconducting cylinders subjected to transverse fields", K V Bhagwat and P Chaddah, *Physica C* **254**, 143 (1995).
10. "Effects of heavy-ion irradiation on the magnetic anomaly in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$ crystal near the transition temperature", A K Pradhan, S B Roy, P Chaddah, D Kanjilal, C Chen and B M Wanklyn, *Physica C* **254**, 281 (1995).
11. "The two colours free electron laser", S. Krishnagopal and Vinit Kumar, *Optics Communications*, **119**,313 (1995).
12. "Crystal growth and defect characterization of zinc ris (thiourea) sulphate: a novel metalorganic nonlinear optical crystal", V Venkataramanan, G Dhanraj, V K Wadhawan, J Sherwood and H L Bhat, *J Cystal Growth* **154**, 92 (1995).