

24. "Study of minor hysteresis loops and harmonic generation in granular samples of BSCCO", S B Roy, S Kumar, A K Pradhan, P Chaddah, R Prasad, N C Soni and K Adhikari, *Physica C* **235-240**, 3193 (1994).

#### Papers in Conferences / Symposia

1. "Influence of imperfections and misalignment of optical elements on the performance of a TGM based beam line of Indus-1", K J Sawhney and R V Nandedkar, Int Conf on Synchrotron Radiation SR-90 Novosibirsk July 1994.
2. "Status of Indus-1", S S Ramamurthi, *ibid*.
3. "Structure property relationships for nonlinear optical response of fullerenes", K C Rustagi, L M Ramaniah and S V Nair, invited talk, SPIE Conference on Fullereness and Photonics, San Diego, USA; Proc. SPIE **2284**, 90 (1994).
4. "Optical limiting in C<sub>60</sub> and C<sub>70</sub> solutions", S R Mishra, H S Rawat, M P Joshi, S C Mehendale and K C Rustagi, *ibid*; Proc. SPIE **2284**, 220 (1994).
5. "Vacuum System Design and Applications", A S Raja Rao, invited talk IVS-HHV Workshop on Vacuum Science and Tech., I I Sc, Bangalore, Aug 22-27, 1994.
6. "Production of Vacuum in Metallurgical Applications", A S Raja Rao, IVS-IIM Seminar on Vacuum Metallurgy, Baroda, Dec 10, 1994.
7. "Effect of self-generated magnetic field on filamentation instability in laser produced plasmas", M Asthana, H C Pant and T Desai, Plasma Science symposium, Guwahati, Nov 14 - 17, 1994.
8. "A study of x-ray emission from ultrashort laser produced plasmas", V N Rai, Y B S R Prasad, M Shukla and H C Pant *ibid*.
9. "Study of laser induced ablation pressure using planar targets", V N Rai, T Desai, Y B S R Prasad, M Shukla and H C Pant *ibid*.
10. "An experimental and numerical study of laser-induced ablation pressure on gold coated and bare aluminium targets", N K Gupta, T Desai, V K Senecha, Y B S R Prasad, T Desai and H C Pant *ibid*.
11. "Application of intense laser-target interaction", H C Pant, invited talk *ibid*.
12. "Numerical code calculations of x-ray conversion in laser-produced plasmas", V K Senecha, N K Gupta, Y B S R Prasad, T Desai and H C Pant *ibid*.
13. "Time and space resolved diagnostics of x-ray emission from ultrashort laser produced plasmas", V N Rai, invited talk *ibid*.
14. "Hot electron generation and their application in target ablation", H C Pant, invited talk at the Workshop on long wavelength laser interaction with plasmas, Jadavpur University Nov 10-12, 1994.
15. "Numerical codes for laser irradiated target hydrodynamics studies", V K Senecha, invited talk, *ibid*.
16. "Energy transport and target ablation in long wavelength laser-target interaction", T Desai, invited talk, *ibid*.
17. "High power pulsed CO<sub>2</sub> laser technology-fabrication/diagnostics", U Nundy, invited talk, *ibid*.
18. "A laser pulse slicer based on high voltage avalanche transistors switch", J A Chakera, P A Naik, S R Kumbhare, A Chowdhury and P D Gupta, Proceedings of the International Conference on Emerging Optoelectronics Technologies, p 363, Bangalore, July 1994.
19. "High resolution Torsion rotation far infrared spectra of C-13 methanol", I Mukhopadhyay and R M Lees, Proc. Third International Conf. on Millimeter Wave and Far Infrared Science and Tech., p 96, ed. G M Tucker, Guanghou, China, August 22-26 (1994).
20. "Magnetic relaxation in single crystal CeRu<sub>2</sub>", S B Roy, A K Pradhan, P Chaddah and A K Huxley, at the DAE Solid State Physics Symp., Jaipur, Dec. 27-31, 1994.
21. Thermally induced structural modification in Platinum-carbon x-ray multilayers G S Lodha, Suneel Pandita, Ajay Gupta, R V Nandedkar and K Yamashita, *ibid*.
22. Characterisation of thin metallic films and multilayers using grazing incidence X-ray diffractometer, Suneel Pandita, Ajay Gupta, G S Lodha, V M Raffee and R V Nandedkar, *ibid*.
23. "Generation of coherent structures in laser produced non uniform plasmas", H C Pant, Proceedings of workshop on quantum like models and coherent effects, Erice - Sicily (Italy), June 13-20, 1994.

## OTHER ACTIVITIES / NEWS

#### Annual function of CAT Staff Club

The CAT Staff Club organised its annual cultural and prize distribution function on Sept 30, 1994. Shri Vishnu Chinchalkar, noted artist was the Chief Guest. Shri A S Raja Rao, President, CAT Staff Club welcomed the gather-

ing and Dr D D Bhawalkar, Director, CAT presided over the function. Shri A S Joshi, Secretary of the club presented the annual report. Prizes were also distributed for the various cultural and sports competitions organised by the club, for the staff and their families, during the past year. A





Dr D D Bhawalkar, Director, CAT addressing the gathering at the annual day function of CAT staff club. On the dias are (from L to R) Shri Vishnu Chinchalkar, Shri A S Raja Rao and Shri A S Joshi.



Dr Bhawalkar with the Governor in the Laser Production unit.

Hindi drama 'Aparadhi Kaun' was presented by the artists of the club on the occasion.

### Governor visits CAT

The Governor of Madhya Pradesh Shri Mohammed Shafi Qureshi visited CAT on Dec 18, 1994. He appreciated the work being done at CAT.

### हिन्दी को बढ़ावा देने के लिए मन से योगदान जरूरी

गत वर्षों की भाँति इस वर्ष भी केन्द्र में 'हिन्दी मास' उत्साहपूर्वक आयोजित किया गया। इस उपलक्ष में हिन्दी की 6 प्रतियोगिताएँ, कर्मचारियों के लिए प्रश्न-मंच कार्यक्रम तथा विभाग के केन्द्रीय विद्यालय के छात्रों के लिए हिन्दी विषयक रुचिकर प्रश्नों की एक हिन्दी-प्रश्नोत्तरी का आयोजन किया गया।

प्रतियोगिताओं के संदर्भ में पुरस्कार वितरण समारोह 13 सितम्बर, 1994 को आयोजित हुआ जिसमें श्री बी.के. साहा, संयुक्त सचिव, परमाणु ऊर्जा विभाग एवं अध्यक्ष, राजभाषा कार्यान्वयन समिति उपस्थित हुए। पुरस्कार वितरण समारोह के अवसर पर अधिकारियों व कर्मचारियों को संबोधित करते हुए श्री साहा ने इस बात पर बल दिया कि हिन्दी के प्रयोग को केवल आदेशों के सहारे नहीं बढ़ाया जा सकता। इस प्रयत्न में हमारी व्यक्तिगत रुचि और मन से योगदान आवश्यक है। श्री साहा द्वारा केन्द्र में आयोजित विभिन्न प्रतियोगिताओं व कार्यक्रमों तथा इस दिशा में किए जाने वाले अन्य प्रयत्नों पर प्रसन्नता व्यक्त की गई। समारोह की अध्यक्षता परियोजना प्रबंधक (त्वरक) श्री एस.एस. राममूर्ति ने की। श्री गोपाल सिंह, निदेशक (प्रशासन) ने मुख्य अतिथि का स्वागत व श्री एस.एन. व्यास, अध्यक्ष, राजभाषा कार्यान्वयन समिति ने केन्द्र में हिन्दी प्रयोग पर चर्चा की। श्री सुनील सरवाही, सहायक निदेशक (राजभाषा) ने विभिन्न प्रतियोगिताओं तथा हिन्दी संवर्धन प्रत्यनों/कार्यक्रमों पर प्रकाश डाला तथा

कार्यक्रम संचालन किया। इस समारोह में वर्ष 1994 में आयोजित विभिन्न प्रतियोगिता के लिए 45 पुरस्कार तथा प्रशस्ति-पत्र दिए गए।

14 सितम्बर, 1994 को 'हिन्दी-दिवस' के अवसर पर निदेशक (प्रशासन) द्वारा कर्मचारियों से हिन्दी में कार्य करने के लिए अपील जारी की गई तथा सहायक निदेशक (राजभाषा) द्वारा व्यापक रूप से व्यक्तिगत संपर्क कार्यक्रम द्वारा सभी से हिन्दी में कार्य करने के लिए सहयोग माँगा गया। माननीय केन्द्रीय गृह मंत्री श्री शंकरराव चव्हाण द्वारा जारी अपील का भी व्यापक रूप से परिचालन किया गया।



मुख्य अतिथि का स्वागत करते हुए निदेशक (प्रशा.)



## Chairman AEC takes over as Chairman, Board of Governors, IAEA



On September 26, 1994, India was elected as the Chairman of the Board of Governors of the International Atomic Energy Agency (IAEA) and the Chairmanship was taken over by Dr R Chidambaram, Chairman AEC. The election was by acclamation. This is only the second time that India has been elected to this position.

### Snippets

- Dr D D Bhawalkar, Director, CAT was elected President of the twentieth annual convention of Akhil Bharatiya Vigyan Sammelan, held at Dhule (Maharashtra) during December 23-25, 1994. Dr Bhawalkar delivered his presidential speech "Lasers: a unique source of light" in Marathi on December 23. On 24 December afternoon, a special lecture by Dr Bhawalkar was arranged for the medical doctors of Dhule. In this lecture he described various applications of lasers in the fields of surgery and therapeutics.
- Dr H S Rawat was awarded Ph D by Devi Ahilya Vishwavidyalaya, Indore. His thesis was titled "Study of very high energy cosmic gamma-ray sources through the atmospheric Cerenkov Technique".
- Dr S V Nair was also awarded Ph D by Devi Ahilya Vishwavidyalaya, Indore. His thesis was titled "Electronic and optical properties of small particles".

### DAE Exhibition

The Department of Atomic Energy organised an Exhibition "Atomic Energy in India" at Choithram School,



Indore during November 14-19, 1994. In all about 1700 students from schools in the districts of Dhar, Dewas, Ujjain and Indore visited the exhibition during the first four days. For the last two days this exhibition was open for public during which about 500 persons from different walks of life visited the exhibition. The DAE also held an essay contest on "Progress made by India in the peaceful uses of Atomic Energy" for the children studying in schools situated in the above districts. About 200 students submitted essays. Out of these, 20 students were selected for a further objective type Quiz, and viva, which were held on January 24, 1995.

Kum Meenakshi S Iyer, a student of class XI of SICA School Indore got the first prize. Shri Aadi Mehta (standard X), of The Digamber H S School, Indore, and Kum Ansu Mary Jacob (standard IX), of St Mary's Convent School, Ujjain, got the second and third prize respectively.

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