



INDIAN ACADEMY OF SCIENCES

C.V. RAMAN AVENUE, P.B. NO. 8005, BANGALORE 560 080, INDIA

29 September 1995

To: All Fellows/Associates

61st Annual Meeting at Madras
10-12 November 1995

SECOND CIRCULAR

The programme for this year's Annual Meeting is now ready and I enclose a copy for your information. It is time for you to finalize your itinerary and make your travel reservations. Three copies of a questionnaire concerning your participation are enclosed. Please mail one copy to Prof. P.T. Manoharan, Secretary, Local Organizing Committee (LOC) at Madras and the second copy to me at Bangalore (self-addressed stamped envelopes enclosed). The third copy is for your files. Please note that if you do not return the questionnaire before 20 October, the LOC will not be able to guarantee your accommodation in Madras.

Your boarding and lodging in Madras will also be taken care of by the LOC. As was indicated in the first circular, Fellows/Associates who are unable to obtain travel support from any other source, will get a travel subsidy equivalent to first class train fare to Madras and back.

We hope there will be a large participation in this year's Annual Meeting.

Secretary

Encl: (1) Programme
(2) Questionnaire (3 copies)
(3) Two self-addressed stamped envelopes

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Bangalore 560 080

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TENTATIVE PROGRAMME

Thursday, 9 November 1995

1700-1900 - Registration & Reception (Venue: IIT, ICSR Lawns)

Friday, 10 November 1995

0730-0900 - Registration

0900-1030 - *Session 1A - Opening Session*
(Venue: IIT Central Lecture Theatre)

0900 - Welcome

0910 - Introduction of Fellows

0930 - Presidential Address
P. Rama Rao, DRDO, New Delhi
Fracture Initiation in Ductile Metals

1030 - Tea break

1100-1230 - *Session 1B - Lecture presentations by Fellows*
(Venue: IIT Central Lecture Theatre)

1100 - P.S. Thiagarajan, SPIC Science Foundation, Madras
Temporal logics viewed as specification mechanisms

1130 - Dipendra Prasad, Mehta Research Institute, Allahabad
Branching laws for representations of groups

1200 - V.V. Ranade, NCL, Pune
Fluid dynamic modelling of chemical reactors

1230-1330 - Lunch break including group photograph

1330-1415 - *Session 1C - Special Lecture*
(Venue: IIT Central Lecture Theatre)

M.M. Sharma, University Department of Chemical
Technology, Bombay
New paradigms in chemical industry

- 1415-1730 - **Session 1D - Symposium on Emerging Trends in Chemical and Biotechnologies**
- 1415 - Paul Ratnasamy, NCL, Pune
Catalysis - Present trends and future challenges
- 1445 - A.V. Rama Rao, IICT, Hyderabad
- 1515 - Tea break
- 1535 - Joseph Thomas, SPIC, Madras
Commercial biotechnology: Opportunities in India
- 1605 - C.M. Gupta, IMTECH, Chandigarh
Genetically programmed microbes in production of antibiotics
- 1635 - K.V. Raghavan, CLRI, Madras
Inroads of engineering and allied sciences in leather process technology
- 1645 - V.P. Kamboj, CDRI, Lucknow
Temporal kinetics of drug development internationally and nationally
- 1655 - A. Jayakrishnan, Sree Chitra Tirunal Inst., Trivandrum
Therapeutic opportunities using polymeric microspheres in medicine and surgery
- 1705 - Discussion
- 1830-1930 - **Session 1E - Public Lecture**
(Venue: Vivekananda Auditorium, Anna University)
- P. Balaram, IISc., Bangalore
Molecules in the treatment of disease: The never ending search for new drugs
- 2000 - Dinner

Saturday, 11 November 1995

- 0730 - Leave Madras for Kalpakkam
- 0930-1100 - Business Meeting of Fellows (Venue: IGCAR Auditorium)
- 1130-1300 - **Session 2A - Lecture presentations by Fellows**
(Venue: IGCAR Auditorium)
- 1130 - G. Ananthakrishna, IISc., Bangalore
Chaos in jerky flow: Experimental verification of theoretical prediction
- 1200 - Surajit Sengupta, IGCAR, Kalpakkam
The statistical mechanics of martensites

- 1230 - S. Kailas, BARC, Bombay
Nuclear reactions near the coulomb barrier
- 1300-1400 - Lunch break
- 1400-1600 - *Session 2B - Symposium on High Energy Physics in the 21st Century*
(Venue: IGCAR Auditorium)
- 1400 - Introduction - G. Rajasekaran, Matscience, Madras
- 1410 - D.P. Roy, TIFR, Bombay
Status report on the standard model of high energy physics
- 1435 - Romesh K. Kaul, Matscience, Madras
Theoretical scenarios for 10^3 GeV - 10^{19} GeV
- 1500 - R. Cowsik, IIA, Bangalore
Hints of new physics from cosmology, astrophysics and non-accelerator experiments
- 1525 - Abhijit Sen, IPR, Gandhinagar
New ideas on acceleration to Planckian energies
- 1550 - Conclusions - R. Ramachandran, Matscience, Madras
- 1600-1730 - Visit to DAE facilities at Kalpakkam
- 1730-1900 - Visit to Mahabalipuram
- 1930 - Dinner (at Mamalla Beach Resort)
- 2100 - Leave Kalpakkam for Madras

Sunday, 12 November 1995

- 0900-1300 - *Session 3A - Symposium on From Molecules and Materials to Medicine - A Symposium on X-rays (100 years) and Magnetic Resonance (50 years)*
(Venue: CLRI Triple Helix Hall)
- 0900 - R. Chidambaram, AEC, Bombay
An overview on 100 years of X-rays and 50 years of magnetic resonance
- 0945 - M. Vijayan, IISc., Bangalore
Form and functions: X-rays in structural biology
- 1015 - S. Subramanian, IIT, Madras
Magnetic resonance in biomolecular structure
- 1045 - Tea break

- 1115 - G.R. Desiraju, University of Hyderabad
Chemical crystallography - From molecular structure to supramolecular synthesis
- 1145 - N. Chandrakumar, CLRI, Madras
Imaging and volume localized spectroscopy in medicine and materials science
- 1215 - S. Ranganathan, IISc., Bangalore
Atomic architecture of solids - An intimate view of materials science
- 1245 - Anii Kumar, IISc., Bangalore
Magnetic resonance in the time domain: A probe for determination of molecular structures
- 1400-1700 - **Session 3B - Lecture presentations by Fellows**
(Venue: CLRI Triple Helix Hall)
- 1400 - Javed Iqbal, IIT, Kanpur
Dioxygen activation by cobalt complexes: A bio-mimetic approach to the oxidation of organic substrates
- 1430 - A.R. Chakravarty, IISc., Bangalore
Binuclear metal carboxylates and new structural motifs
- 1500 - Tea break
- 1530 - P.N. Rangarajan, IISc., Bangalore
Hepatic gene delivery by lipofection
- 1600 - Shashi Wadhwa, AIIMS, New Delhi
Developing neural substrate of human vision
- 1630 - A.K. Tyagi, Univ. of Delhi South Campus, New Delhi
Transcription and gene regulation in mycobacteria
- 1800-2000 - Cultural Programme
- 2030 - Banquet