

PROGRAMME

Discussion Meeting on
'Condensed Matter Science—Current Status and
Plan for Action'
18–19 April 1994
Indian Institute of Science, Bangalore

I. General perspectives.

Survey of present support, scientific possibilities, and action needed

C. N. R. Rao, IISc, Bangalore

Condensed matter and materials science, and the DST

V. Rao Aiyagari, DST, New Delhi

Condensed matter research in the CSIR

A. V. Narlikar, NPL, CSIR, New Delhi

Condensed matter activities and the DAE – an overview

B. A. Dasannacharya, BARC, Bombay

II. Low temperature physics

Low temperature facilities for condensed matter research

R. Srinivasan, IUC-DAE, Indore

Experiments on quantum phase transitions

A. K. Raychaudhuri, IISc, Bangalore

Heavy Fermions: Magnets, superconductors, insulators

S. Ramakrishnan, TIFR, Bombay

The continuing attractions of magnetism

S. N. Kaul, University of Hyderabad, Hyderabad

III. Structure and instrumentation

Condensed matter at high pressures

S. K. Sikka, BARC, Bombay

Instrumentation for condensed matter science – Large and small

K. R. Rao, BARC, Bombay

R. Vijayaraghavan, TIFR, Bombay

Surface structure

M. K. Sanyal, SINP, Calcutta and BARC, Bombay

IV. Semiconductors and optoelectronics

Semiconductor physics – Where do we go?

V. Kumar, SSPL, New Delhi

Optoelectronics

S. S. Jha, TIFR, Bombay

Si, Si-Ge and the new heterostructure world

V. Venkatraman, IISc, Bangalore

V. New materials

Quasicrystals – Indian research accomplishments and imperatives

S. Ranganathan, IISc, Bangalore

New cuprate superconductors

J. Gopalakrishnan, IISc, Bangalore

VI. Soft condensed matter

Colloids, membranes microemulsions, vesicles, etc – an overview

A. K. Sood, IISc, Bangalore

Liquid crystals – New and old

N. V. Madhusudana, RRI, Bangalore

Physics and chemistry of dispersions

C. Manohar, BARC, Bombay

Complex fluids

A. Kumar, IISc, Bangalore

Self-assembly in proteins and membranes

P. Balaram, IISc, Bangalore

VII. Condensed matter theory

Role of theory in understanding of complex systems

N. Kumar, IISc, Bangalore

Statistical mechanics – Models and realities

B. K. Chakrabarti, SINP, Calcutta

Soft condensed matter

R. Pandit, IISc, Bangalore

W(h)ither solid state physics?

T. V. Ramakrishnan, IISc, Bangalore

VIII. Molecular electronics and mesoscopic systems

Organics in molecular electronics – New systems, physics and technology

S. V. Subramanyam, IISc, Bangalore

Fullerenes and nanostructures

C. N. R. Rao, IISc, Bangalore

Quantum dots and other mesoscopic systems

T. Chakraborty, IMS, Madras

IX. Applications

Scanning probe microscopy and applications

A. K. Raychaudhuri, IISc, Bangalore

Nonlinear optical materials

H. L. Bhat, IISc, Bangalore

Applications of superconductivity – So near and yet so far

T. S. Radhakrishnan, IGCAR, Kalpakkam

Photovoltaics: Promise and performance

A. K. Barua, IACS, Calcutta

Glasses and ceramics

K. J. Rao, IISc, Bangalore