

**Proceedings of the conference on 'Defects in condensed media',
Kalpakkam, 1995**

FOREWORD

The significant gains made in the basic understanding of defects in crystalline solids and in the controlled production of defects to tailor material properties, are exemplified by the rapid strides in semiconductor technology and in the control of mechanical behaviour of engineering alloys. In recent years, several new classes of materials such as amorphous systems, quasicrystals, high temperature superconductors and nanophase materials have attracted the attention of materials scientists. A description of defects in these novel materials and an understanding of their influence on various physical properties are topics of current interest. Further, the progress in computer simulations and modelling have opened up avenues for detailed understanding of defects and defect mediated processes. With these developments in mind, a conference on 'Defects in condensed media' was organized at the Indira Gandhi Centre for Atomic Research, Kalpakkam during September 20–22, 1995 to obtain a coherent perspective on the changing scenario of defects in materials. This conference brought together several leading experts in the field from India and a few from overseas. It was co-sponsored by the Board of Research in Nuclear Sciences, the Department of Atomic Energy (DAE), the Inter-University Consortium for DAE Facilities, the Indian Physics Association and the Materials Research Society of India.

It gives us pleasure to bring out the proceedings of this conference as a special issue of the *Bulletin of Materials Science*. It includes selected papers covering various aspects of defects in semiconductors, ionic crystals, superconductors, quasicrystals, intermetallics, colloids and nanoparticles. We are thankful to all the authors for their contributions and hope that this special issue will be read with interest by researchers in materials science. We sincerely thank Prof. K J Rao, Editor, *Bulletin of Materials Science* and Dr Baldev Raj for their support in bringing out this special issue.

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