PREFACE

The area of Electronic Devices has undergone a rapid expansion in recent years. New developments are continuously taking place all over the world. The progress in the field of Electronic Devices is, however, interdependent on the production and characterization of device grade material. The Science and Technology of electronic materials has comparatively drawn lesser attention compared to devices. Economic viability could be one of the important factors. There have been very few international conferences in recent years devoted solely to Material Science. Motivated by these ideas, we have been organizing series of international conferences on semiconductors. A unique feature of this activity is Intensive Tutorial Course on specific topics, prior to the international conference. The first International Conference and Intensive Tutorial Course was organized in December 1988. The topics for tutorials were development and characterization of silicon, gallium arsenide and mercury cadmium telluride (MCT). The second such activity was organized in December 1992 and the topics for tutorials was disordered materials. The 3rd International Conference and the Tutorial Course was organized from Dec. 15-21, 1996 and the topics for tutorials were low dimensional semiconductor structures. A large number of scientists from all over the world have been taking part in these international conferences. The tutorials proved to be very popular among the young scientists.

Besides the exchange of ideas and informations, there have been few unique outcomes from these activities. One is the setting up of a Regional Network in the area of Semiconductor Science and Technology through the assistance of International Centre for Theoretical Physics, Italy and Science and Technology Centre of NAM (Non Aligned Movement). The regional network is organizing training programmes for young scientists in developing countries. Another important outcome is the formulation of collaborative research programmes between groups in various countries. In between the International Conferences, Regional Workshop on specialized topics are also being organized.

The present proceedings cover the invited talks and contributed papers presented in the December 1996 conference (ICSMT'96). The main thrust was low dimensional semiconductor structures but a large number of topics dealing with the latest developments in the area of semiconductor materials were also covered. Subjects such as quantum wells, superlattices and nanostructures, materials for optical memories, sensors, laser induced crystallization and group II - VI, III - V and IV - VI semiconductors have been covered in this proceedings. We hope that the proceedings will be helpful and beneficial to the scientists working in the area of semiconductors.

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R. M. Mehra
Secretary
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