PREFACE

These volumes are a collection of papers presented at the Eighteenth International Conference on Defects in Semiconductors (ICDS-18), which was held July 23~28, 1995 at the International Center in Sendai, Japan. ICDS-18 was the fourth such conference to be held in Japan, following those held in Kyoto in 1962, Tokyo in 1966 and, Oiso in1980. This series of conferences has a history of as long as 36 years since the first one was organized in 1959 in the U.S.A.. For a long time it was a satellite conference of the International Conference on the Physics of Semiconductors (ICPS) and was called the International Conference on Defects and Radiation Effects in Semiconductors. In the early days, the main concern at the Conference was understanding the basic properties of rather simple types of defects in semiconductors, typically induced by particle irradiation. Those in the field seemed to be interested in electrical and optical effects appearing when the tetrahedral atomic coordination in a semiconductor was disturbed by structural defects or impurities. The study of defects in semiconductors has never been independent of the progress in semiconductor technology. With rapid development in semiconductor device technology, novel types of defects as well as very peculiar behavior of defects in semiconductors have been found one after another. New subjects in the basic study of defects have often been arisen from experiences in the practical field. Great progress has also been achieved in device production technology on the basis of the knowledge clarified in the basic field. Thus, the study of defects in semiconductors has become self-contained, and the Conference has been independent of ICPS and named ICDS since 1991.

The number of registered participants of ICDS-18 was 316 from 30 countries. The number of submitted papers was more than 440, and among them 346 papers were accepted and presented for presentation, 17 as invited papers, 91 for oral presentation and 238 for poster presentation. Quite an array of subjects were taken up at ICDS-18, ranging from basic aspects of defect properties to practically important phenomena related to device production engineering. Among them, hydrogen-related problems, defects and impurities in GaN and related widegap semiconductors and grown defects in Czochralski-grown silicon may be regarded as highlights of ICDS-18. The discussions at all sessions were enthusiastic. On the days which had poster sessions, the hall was full of participants who carried on earnest discussions until late at night. The weather was fine throughout the Conference period, and all participants enjoyed the excursion to the Matsushima Island Area on July 26.

During the 36 years since the establishment of ICDS, although many scientists who were active in the field have left the community, many more scientists have joined. One of the founders of ICDS, Professor J. W. Corbett, passed away after ICDS-17. To commemorate his outstanding contribution to the development of the Community of Defects in Semiconductors and his passion for training young scientists and encouraging them in the field, the International Advisory Committee (IAC) of ICDS has decided to found the J. W. Corbett Prize to be awarded to young scientists who make the best presentation of papers in oral or poster sessions at ICDS. The first awardees of the J. W. Corbett Prize were Dr. Yasunori Mochizuki and Dr. Kohei M. Itoh for their presentations at ICDS-18. They were selected by vote of the members of IAC.

The next Conference (ICDS-19) will be held in Aveiro, Portugal in 1997 and will be organized by Professor G. Davies and Professor M. H. Nazare. We wish them great success.

Koji Sumino
Sendai, September 1995

ACKNOWLEDGEMENTS

The success of the 18th Conference on Defects in Semiconductors was due to the contribution of many people. The scientific program was put together by the International Program Committee. The advice of the members of the International Advisory Committee as to invited speakers and Conference organization was greatly appreciated. Many colleagues kindly served as referees for the proceedings manuscripts and/or as chairpersons of technical sessions. The members of the local organizing committee, N. Miyamoto, M. Suezawa, H. Katayama-Yoshida, M. Suemitsu, I. Yonenaga, and T. Sekiguchi served devotedly in making local arrangements for the Conference.

The Conference was held under the sponsorship of the Ministry of Education, Science and Culture of Japan. Financial support was also forthcoming from Sendai City, Miyagi Prefecture, and many industries and foundations in Japan. They are listed on the next page.

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