

physica status solidi (b)

basic research

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on Nitride Semiconductors (ICNS'99)**

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Editors' Preface

The scientific program of the Third International Conference on Nitride Semiconductors (ICNS'99) included 23 invited talks, 51 contributed talks and 315 posters presented in three sessions. The conference enjoyed a truly international attendance with 503 registered participants representing 31 countries. The purpose of the conference was to provide a forum for discussions on the progress made in the entire field from growth, characterization to processing and devices of nitride material. This includes many fundamental issues, still unresolved device issues and improvements in device reliability. The list of topics covered by the present Proceedings includes progress in: the quality of materials grown by HVPE, MOCVD and MBE; the development of original growth and processing techniques; the growth and fundamental studies of bulk materials; the elaboration and physical properties of innovative quantum structures; the understanding of internal polarization fields; the development of LEDs and LDs, as well as transistors. The industrial perspective of the nitrides which covered an overview about the market and applications was given by J.Y. Duboz (Thomson-CSF). It was clarified in a discussion panel session that the expected volumes of devices are very high in the optical device area. For high power transistors the volumes are lower but the market will still be large because a much higher cost per device will be tolerated. The market in general is expected to grow rapidly once the capability of new devices has been demonstrated.

This special issue of *physica status solidi* (a) and (b) brings together qualified papers which have been reviewed and evaluated keenly. In total, there are 300 papers published in these two books, demonstrating the current and advanced achievements in nitride semiconductors. Furthermore, these papers provide insight into the current status of the field, reflecting over 77% of the work represented at the conference. The volume of *physica status solidi* (b) contains papers about the optical, electrical and structural properties of group-III nitrides while the volume of *physica status solidi* (a) gathers papers devoted to growth and devices.

We would like to thank all the reviewers for their careful reading and scientific evaluation of these special issue papers. We would like to express also many thanks to Dr. T. Bretagnon for his help in the editorial work. It is certain that this volume would not have appeared without the generous help of all the persons involved in making the conference a great success.

A. Hoffmann

P. Lefebvre