Proceedings of the 43rd International School and Conference on the Physics of Semiconductors "Jaszowiec 2014"

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Preface

The present issue of *Acta Physica Polonica A* contains 47 contributed papers presented at the 43rd International School and Conference on the Physics of Semiconductors "Jaszowiec 2014", which took place in Wisła, Poland, between June 7th and 12th, 2014. This meeting of the Polish and international semiconductor community has been organized annually since 1970 by several Polish scientific institutions.

Jaszowiec 2014 was organized by the Institute of Physics of the Polish Academy of Sciences, the Faculty of Physics of the University of Warsaw (the Institute of Experimental Physics and Institute of Theoretical Physics), the Institute of High Pressure Physics of the Polish Academy of Sciences, the Institute of Physics of the Wrocław University of Technology, the Institute of Electron Technology, the Committee on Physics of the Polish Academy of Sciences, and Foundation Pro Physica.

Every year, the conference brings together prominent experts working both in Poland and foreign research centers (representing 15 countries at Jaszowiec 2014) and provides an important contribution to the development of semiconductor physics. In the last years, the number of participants of the School and Conference has numbered over 250. In 2014, a two-day Special Tutorial Session preceded the Conference from June 7th to 8th. The School consisted of 6 lectures followed by discussions and exercises that provided an introductory overview of the main conference topics. During the following 4 days of the Conference, 17 one-hour long invited talks were given and about 200 contributed papers were presented as 20-minute talks or posters. The subjects covered during the invited talks included, but not limited to, topological insulators, Majorana fermions, semiconductor nanostructures, nanophotonics, spintronics, quantum information, graphene, wide-gap semiconductor devices for energy conversion, and advanced characterization/processing techniques.

We wish to express our gratitude to the members of the Program Committee and the International Advisory Committee for their significant contribution to the success of the School and the Conference. We would also like to thank all the colleagues who helped organize the School and the Tutorial Session. We address special acknowledgments to Łukasz Kłopotowski, Chairman of the Tutorial Session, as well as to the members of the Organizing Committee: Martyna Cinak-Modzelewska and Maciej Zajączkowski.

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