

Proceedings of the XIII International
Conference on Ion Implantation and
Other Applications of Ions and Electrons
(ION 2022)

Kazimierz Dolny, Poland
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Preface

The papers included in this volume of *Acta Physica Polonica A* are a contribution to the XIII International Conference on Ion Implantation and Other Applications of Ions and Electrons — ION 2022, which was held in Kazimierz Dolny, Poland, on June 27–30, 2022. The Conference was organized by Maria Curie-Skłodowska University in Lublin in cooperation with the Lublin University of Technology and the Polish Physical Society.

The Conference was attended by 44 participants from Belarus, Germany, Poland, South Africa, and Ukraine, who had the opportunity to meet in a friendly atmosphere in the beautiful historic town of Kazimierz Dolny to exchange experience in the field of ion implantation and the application of electron beams and plasma. The idea of the biennial ION Conferences was stimulated by the permanent interest in ion beam methods, which started from fundamental studies in ion and plasma physics and have established themselves as the standard techniques for material modification and characterization. A wide range of topics was addressed during the ION 2022 Conference, including *inter alia*: ion beam modification of semiconductors, metals, insulators, and polymers, microstructural investigations of ion-implanted and swift heavy ion-irradiated materials, tribological properties of metallic and ceramic plasma-deposited coatings, computer simulations of post-implantation damage and ionization processes in ion sources. The diversity of topics was a great advantage for the participants of the Conference because it offered new approaches to solving scientific and technological problems.

During the four days of plenary sessions, 14 invited talks and 2 special lectures were given, reviewing actual topics of interest to the participants. The ION 2022 Conference also featured 13 oral presentations and 27 poster contributions with detailed information. Nine persons participated in the Young Scientists Contest.

We would like to thank everyone who contributed to the organization of our Conference in the difficult year of 2022. Special thanks are due to Mr. Janusz Filiks, Dr. Andrzej Drożdźiel, and Dr. Krzysztof Pyszniak for their work, as well as to Dr. Wolfgang Skorupa for giving us a traditional organ concert in the Fara church in Kazimierz Dolny.

Marcin Turek,
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Guest Editors