

## Editors' note

This volume of Solid State Phenomena contains the selected papers based on the contributions to the XV International Conference on Electron Microscopy EM2014, which took place in Kraków from the 15th to the 18th of September 2014. This cyclic conference is traditionally held in Poland every three years. The EM2014 conference was the accompanying event of the 18th International Microscopy Congress, which was held on 7-12 September 2014 in Prague.

The EM2014 was organized by the AGH University of Science and Technology, particularly the International Centre of Electron Microscopy for Materials Science and the Faculty of Metals Engineering and Industrial Computer Science, under the auspices of the Rector of AGH University of Science and Technology, Professor Tadeusz Słomka. The co-organizers of the conference were the Polish Society for Microscopy and the Committee of Materials Science of the Polish Academy of Sciences.

The scope of the EM2014 was focused on modern electron microscopy methods applied mainly to materials science, physics, chemistry, earth and life science. The wide range of topical areas was reflected in the conference programme, consisting on 26 invited and keynote lectures, 28 oral presentations and 126 posters. The invited and keynote talks of internationally leading scientists gave highlights on the latest developments in advances in scanning electron microscopy, instrumentation and computing methods in electron microscopy, high resolution electron microscopy and electron holography, analytical electron microscopy, electron tomography, as well as applications of electron microscopy in materials science and life sciences. The special care was paid to enable young scientists to participate in the conference. During the young scientists session the selected contributions of younger generation were presented.

The EM2014 conference was kindly supported by the Polish Ministry of Science and Higher Education, Polish Academy of Sciences, European Microscopy Society as well as FEI and JEOL companies. The Polish Society for Microscopy founded awards to three PhD students for their outstanding research presentations. Three prizes for the best poster contributions were sponsored by COMEF company. The support of all the companies participating in the commercial exhibition is very much appreciated. The EM2014 organizers are grateful to all the institutions and companies who gave their contribution to the conference in efforts and means.

The conference was participated by 251 participants from 20 countries. Thanks to the very nice atmosphere created by all the participants during the scientific sessions and social events, the conference provided an opportunity to exchange knowledge, establish new friendships and initiate cooperation. The organizers would like to express sincere thanks to all EM2014 participants for their contribution to scientific success of the conference.

The papers prepared for this volume of Solid State Phenomena are written on the basis of selected presentations from the EM2014. The papers were chosen by the Scientific Committee, taking into account their scientific quality and relevancy to the conference scope, and subsequently reviewed by at least two experts. The papers present the recent results of the applications of electron microscopy methods for microstructural studies in materials science.

Beata Dubiel and Tomasz Moskalewicz

# **XV International Conference on Electron Microscopy**

## **EM2014**

**organized by**

**AGH University of Science and Technology**  
International Centre of Electron Microscopy for Materials Science  
Faculty of Metals Engineering and Industrial Computer Science

**Polish Society for Microscopy**

**Committee of Materials Science of the Polish Academy of Sciences**

held under the Auspices of the Rector of AGH University of Science and Technology,  
Professor Tadeusz Słomka

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**Satellite event of the 18th International Microscopy Congress IMC 2014**

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