



Preface

The series of the Baltic International Conferences on Materials Engineering and Tribology was started in 1991 with a focus on materials issues and tribological studies. Since then, the BALTMATTRIB has become an open forum for researchers and engineers to exchange ideas, share thoughts, and encourage development and cooperation in both basic and applied research in the fields of materials science, powder metallurgy, heat treatment, surface engineering, and tribology.

The 24th International Conference BALTMATTRIB 2015 was held in Tallinn, Estonia, on 5–6 November 2015. The conference was organized by Tallinn University of Technology (TUT) and the Association of Baltic Materials Societies (ABMS) in cooperation with the International Federation of Heat Treatment and Surface Engineering (IFHTSE).

The BALTMATTRIB provides an open forum for scientists and engineers to exchange ideas, interact cooperatively, and foster the development of basic and applied research on the topics related to the conferences and dissemination of research results. The conferences attract participants from academia, research labs, and industry. The BALTMATTRIB seeks to forge cooperative links between researchers and engineers by bringing them together to present and listen to current research in these areas.

The topics of the BALTMATTRIB 2015 were

- advanced engineering materials and related technologies,
- heat treatment and surface engineering for tribological performance,
- friction, wear, and lubrication.

A special issue of the journal *Key Engineering Materials* was published containing most of the papers contributed to the BALTMATTRIB 2015.

The current special issue of the *Proceedings of the Estonian Academy of Sciences* publishes selected papers prepared with participation of PhD students. The focus is on wear resistant materials, powder materials, and coatings as well on their tribological behaviour.

The Guest Editor believes this special issue will be a valuable resource not only for the participants of the BALTMATTRIB Conference but also for the whole research community in the field of materials science and engineering as well as tribology.

The Guest Editor expresses his gratitude to the authors and referees for their quick feedback that helped us to compile the current issue. The organizing committee of the BALTMATTRIB Conference would especially like to thank the Estonian Ministry of Education and Research (Institutional research grant IUT 19-29), the Faculty of Mechanical Engineering of TUT (project BMV1), and the City of Tallinn for hosting and sponsoring the conference.

Priit Kulu
Guest Editor