

Preface

The first International Baltic Conference on Powder Metallurgy was held in 1991. Conferences on materials engineering have become a tradition since then. The 20th Baltic Conference in Materials Engineering took place in 2011 in Kaunas. Those three-annual conferences in the three Baltic countries deal with specific topics in each country: engineering materials in Lithuania, powder technology and composite materials in Latvia, and powder materials, coatings and tribology in Estonia.

The conferences have attracted numerous participants from academic institutions, e.g. Kaunas University of Technology, Riga Technical University and Tallinn University of Technology, as well as from industry.

BALTMATTRIB conferences in Estonia have become an open forum for researchers and engineers for presenting and sharing new ideas, and encouraging development and cooperation in basic, as well as applied research in the fields of materials science, powder metallurgy, surface engineering and tribology.

BALTMATTRIB has always enhanced cooperation between researchers and engineers by bringing them together and discussing the latest research results. Participants from 16 countries are present at BALTMATTRIB 2012, to be held on October 18–19, 2012 in Tallinn, Estonia. More than 80 papers were submitted to be presented at the conference. After carefully studying the papers, 55 papers from 15 countries were accepted for oral presentation. Selected papers are published in special issues of the journals *Key Engineering Materials* and *Estonian Journal of Engineering*.

The Organizing Committee of the conference would like to express their gratitude to authors and referees for their quick feedback that has helped us to compile the conference proceedings and the current issue. We would especially like to thank the Estonian Ministry of Education (targeted financial projects SF 01400062S08 and SF 01400091S08), the Faculty of Mechanical Engineering of the Tallinn University of Technology (base-financed project), the Doctoral School “Functional Materials and Technologies” of UT and TUT (Archimedes Foundation project 1.2.0401.09-0079), and the City of Tallinn.

On behalf of the Organizing Committee of BALTMATTRIB 2012
Prof. Priit Kulu
Conference Chair