

Preface

It is a pleasure to introduce this Volume devoted to the 8th International Conference on Key Engineering Materials (ICKEM). The 2018 edition of the ICKEM conference was held in Osaka, Japan on March 16-18, 2018. This meeting was aimed at creating a linkage between industry and academia in the field of engineering materials, and at contributing to the building of an overarching technology platform for research and development activities in the area of advanced materials.

The evaluation of all papers was conducted by the technical program committee on the basis of the review reports from technical program committee members and international reviewers. By means of double blind peer-review, 96 full papers were accepted from the original 184 submissions. This volume provides an opportunity for the readers to engage with a selection of refereed papers that were presented during at ICKEM2018.

The collected papers are focused on research in the areas of polymers and composites, nanomaterials and biomaterials, functional materials, materials for electronic engineering, surface engineering and coatings, electrochemistry; environmental and chemical engineering, steels and alloys, technologies for machining and metal recovery, materials mechanics and structural mechanics, and building materials.

Furthermore, in order to explore more fully some new ideas, avenues and initiatives to respond to new challenges, the Conference Chair (Professor Alexander M. Korsunsky, Head of MBLEM lab, University of Oxford, UK) organized a workshop devoted to Hierarchically Structured Materials (HSM), in which specific research results by conference participants were presented and examined in the light of HSM modelling and characterisation framework.

The conference organizing committee members would like to take this opportunity to extend warm thanks to all technical program committee members and external reviewers who contributed great efforts to paper selection and reviewing. The creation of high quality conference proceedings would not have been possible without their hard work and dedication of their time and thought. Also, this event could not have become reality without the support of all our chairs, keynote speakers, invited speakers, and the conference secretary. Special thanks go to the University of the Ryukyus, and Kyushu Branch of the Society of Materials Science, Japan, for their invaluable assistance in the organization process.

We hope that the readers find their engagement with the ideas and results presented in this Volume both useful and interesting, and helpful in sustaining their own professional development in the global context of key engineering materials

Last but not at least, we are delighted to announce that The 9th International Conference on Key Engineering Materials will be held in Oxford, United Kingdom on March 29-31, 2019. We look forward to welcoming the delegates of ICKEM2019 in the UK next year.

On behalf of the ICKEM2018 Organizing Committee
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