

# Preface

ICSAM 2018, the 13<sup>th</sup> Interactional Conference on Superplasticity in Advanced Materials, was held in Saint-Petersburg, Russia, from 19th to 22nd August, 2018. More than 150 researchers from academia and industry were coming together from 20 countries to report and discuss the recent advances on superplasticity and related issues. The Organizing Committee received more than 200 abstracts for presentation in the conference. Then, 81 excellent papers were peer reviewed and published in Conference Proceeding as a special issue of Materials Science Forum (Trans. Tech. Publications). In addition, 7 overviews were published in a special issue of Reviews on Advanced Materials.

The ICSAM conference have been held on a triennial basis since the first conference held in San Diego at 1982 to bring together researchers and engineers from both academic and industrial communities in the field of superplasticity. It was, then, followed by eleven consecutive conferences at San Diego, Grenoble, Blaine, Osaka, Moscow, Bangalore, Orlando, Oxford, Chengdu, Seattle, Albi and Tokyo rounding North America, Europe and Asia.

The 5<sup>th</sup> ICSAM conference was held 24 years ago in Moscow, Russia. The present, i.e., ICSAM 2018 - 13<sup>th</sup>, conference was held in Saint-Petersburg for the second time in Russia, built upon the above-mentioned proven concept, and continued the tradition of its predecessors. The examination on superplastic phenomenon and implementation of superplastic forming technique into commercial use were two major topics of ICSAM 2018. The distinct feature of ICSAM 2018 was numerous reports dealt with producing metallic materials with ultra-fine grained structure and their mechanical and functional properties. ICSAM 2018 was organized by Belgorod State University in cooperation with Saint-Petersburg State University, Saint Petersburg National Research University of Information Technologies, Mechanics and Optics and Armalit31 LLC and supported by Russian Foundation for Basic Research.

The ICSAM 2018 provided a platform for discussing the production of materials with submicrometer and nanoscale grains, including all aspects of their mechanical behavior with focus on superplastic phenomenon. The overall aim of the ICSAM 2018 was to consolidate the existing knowledge and identify future work among the following fields:

- Superplastic materials and mechanisms of superplasticity;
- Superplasticity-related processing and phenomena;
- Grain refinement by Severe Plastic Deformation;
- Mechanical and functional properties of ultrafine-grained materials;
- Design, testing and modeling;
- Industrial applications.

We look forward that next ICSAM conferences also will meet a high impact.

Goroh Itoh

Rustam Kaibyshev

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ICSAM 2018

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