

# Preface

## 4<sup>th</sup> International Conference on Smart Materials Technologies (4<sup>th</sup> ICSMT)

The Organizing Committee cordially welcomes you to the 4th International Conference on Smart Materials Technologies, held during 21-23 June, 2019, Saint-Petersburg, Russia.

The aim of such scientific event was to join researches from different countries (professors, students, PhD students, engineers and post-doc scientists) whose scientific investigations relates to topics in materials science. The conference became the background for the participants to exchange their knowledge, results of investigations, and experience in the areas of their scientific interests and to find issues for further partnership relations.

The submitted papers were reviewed by leading scientists in the areas of materials science and estimated in accordance with originality, innovation, technical merit and applicability. The presented papers reflect both theoretical and experimental studies of materials properties for a wide range of their application. The conference program makes it possible to get acquainted with presentations and posters which broaden the possibilities of participants to get knowledge in different scientific fields.

The proceedings consists papers which were presented at the conferences. All interested readers can find necessary information about in the related topics of the conferences. It may give them new impulse to expedite their own research activity based on new ideas presented at the conference.

The Organizing Committee wish all the authors and participants, from Russia, Poland, Spain, China, UK, Thailand, Czech Republic, Japan, South Korea, Turkey, Algeria, Qatar, Romania, Taiwan, etc. an unforgettable memory about ICSMT 2019 in Saint-Petersburg. Science and Engineering Institute (SciEI), as Professional Organizer for Academic Conferences, will be committed to make such conference more and more professional as academic exchange platform for participants from different countries. Sincerely as always, we look forward to your consistent attention and support to the 5th ICSMT in 2020.

With our warmest regards,

Prof. Marina Polyakova

Nosov Magnitogorsk state technical university, Russia

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## 4<sup>th</sup> International Conference on Advanced Functional Materials (4<sup>th</sup> ICAFM)

The 4th International Conference on Advanced Functional Materials has been successfully held during August 2-5, 2019 in Salt Lake City, United States. Since 2016, ICAFM has visit Alaska, Los Angeles and San Francisco, this is the 4<sup>th</sup> year of ICAFM, and we welcome all delegates and guests to this conference. We hope you will have a wonderful time.

ICAFM 2019 aimed at promoting research worldwide and publishes basic and advanced research work from all branches of physics, applied surface sciences, crystal growth, high energy density physics, materials chemistry and physics with its functions, solid state sciences, solid state electronics, solid state communications, nonlinear physics, surface coatings and technology, progress in surface sciences, solar cells applications, sensors applications, thin solid films, thin film applications, chemistry, biochemistry, biotechnology, nanoscience, nanotechnology, material science and all general sciences.

The volume contains papers presented at 2019 The 4th International Conference on Advanced Functional Materials, which was held during August 2-5, 2019 in Salt Lake City, United States. All papers have undergone a blind peer-review process by our professional technical reviewers from all over the world. This publication is the result of the creative work of their authors and of a highly selective peer-review process.

We would like to express our sincere thanks to all those who have contributed to the success of ICAFM 2019. All authors, speakers, session chairs, Thanks for your support and participation. Your participation has promoted the conference to better.

ICAFM 2019 Organizing Committee

August 2-5, 2019, Salt Lake City, United States

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