

## Preface

The International Symposium on Energy Science and Chemical Engineering (ISESCE) has confirmed once again this year the enthusiasm and determination of students and young researchers to play a major role in the scientific progress. Since 2015, we have regularly gathered together to discuss the most recent developments and achievements in energy science and chemical engineering, and firmly convinced that sharing our expertise and experience is the foundation of research activity.

The 2023 8<sup>th</sup> International Symposium on Energy Science and Chemical Engineering (ISESCE 2023) took place on March 24<sup>th</sup> to 26<sup>th</sup>, 2023 in Guangzhou, China (virtual form), attracting about 160 leading delegates around the world. The format we chose is an informal meeting primarily aimed at graduate students and leading researchers, who were encouraged to present their work in brief presentations that provide genuine engagement of the audience and cross-pollination of ideas. One of the main purposes of the Conference was to create an international network of young researchers, both experimentalists and theorists, and fruitful collaborations across the different branches of energy science and chemical engineering.

After seven sessions that strengthened it, the International Symposium on Energy Science and Chemical Engineering was held for the eighth time. It was a three-day Conference. The success of this year's event was testified by an increased number of participants and institutions all around the world. This resulted in an extremely rich and interactive poster session that covered several areas of energy science and chemical engineering.

With the intent of broadening the contents and stimuli adopting academic communication, the keynote speech part was held. This choice reflected the growing importance of the activity performed by scientists and researchers, especially at the earliest stages of their career, as a way of increasing their expertise and developing soft skills. During the meeting, Professor Ali A. Ensafi (Isfahan University of Technology, Iran) reported on The Role of Metal-Organic Frameworks for Energy Production and Storage Materials. In this talk, he showed that with the emergence of electric vehicles and intelligent portable electronic devices, as well as the increasing environmental concerns and consumption of fossil fuels, the demand for clean and renewable energy is escalating. Thus, there is an immediate requirement for energy storage and conversion systems. As for electrochemical and electrochemical energy storage devices, supercapacitors and fuel cells have gained tremendous attention from both industry and academia due to their unique characteristics such as ultra-long durability, environmentally friendly, and good reliability.

In this volume, we collected part of the contributions that have been presented at the Conference. They cover topics on Energy Science and Engineering, Chemical Engineering and Technology, Advances in Chemistry Research, etc. Given the recent experimental achievements in energy science and chemical engineering, several contributions were focused on the latest results obtained in these fields, presenting the impact of experiments to the community of young researchers and forecasting the future goals in these areas of research.

The organizers of the ISESCE 2023 would like to thank all the scientists who participated in the meeting. We owe gratitude to the members of the Technical Program Committee for providing technical support throughout the meeting. The publication of the proceedings of this Conference is supported by E3S Web of Conferences; we also acknowledge support from Universitas Xaveriana Cincinnatiensis and Guangdong University of Petrochemical Technology.

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