

PREFACE

Special Issue from the 13th Asian Thermophysical Properties Conference (ATPC2022)



Conference photo of the 13th Asian Thermophysical Properties Conference (ATPC2022)

The Asian Thermophysical Properties Conference (ATPC) is one of three major conferences on thermophysical properties, along with the European Conference on Thermophysical Properties (ECTP) and Symposium on Thermophysical Properties (STP). Since the first ATPC was held in Beijing (China) in 1986, it has been held every three years to provide an opportunity for the scientific community to present and discuss new ideas and exchange information on thermophysical properties. It covers a wide range of topics from basic science to the application of a variety of materials and systems, including materials informatics, composites, polymers, organic assemblies, measurement techniques, nanomaterials, energy resources and systems, biomaterials, electric devices, radiative properties, thermoelectric materials,

solids and fluids, materials at high temperatures, space materials, multiple phase materials, and working fluids.

Owing to the COVID-19 pandemic across the world, almost all countries have restricted travel since 2020. Although the world is recovering from COVID-19 in 2022, most countries are still fighting the COVID-19 pandemic; therefore, the ATPC organization committee held the 13th ATPC as a hybrid conference.

The 13th ATPC took place between September 26th and 30th, 2022 in Sendai, Japan. Despite the COVID-19 pandemic, 353 scientists from 17 countries participated in 17 sessions with 184 oral presentations, including 3 plenaries, 16 keynotes, 30 invited talks, and 29 poster presentations. Despite the Covid-19 pandemic, the first trial of a hybrid conference was successful.

This special issue of *High Temperatures–High Pressures* is devoted to the organized session (OS) 12, which focused on the properties of materials science at high temperatures. This hybrid session included 22 oral presentations, including one keynote presentation and two invited talks. We greatly appreciate the participants' contributions in stimulating the discussion in that session. Additionally, we are pleased with the publication of this special issue, which contains 9 papers.

We sincerely thank all those who contributed to this success. We would like to thank the members of the International Scientific Committee: M. J. Assael, Y. S. Choi, M. L. Huber, S. Lee, A. Mandelis, D. Matson, A. Muscio, D. W. Oh, G. Pottlacher, D. Saikia, L. Santos, Y. Taguchi, K. Takahashi, N. Taketoshi, D. Tang, W. A. Wakeham, G. C. Wary, D. Yuning, X. Zhang, and X. Zhang. This conference was funded by the Japan Society for the Promotion of Science (JSPS) and the *International Journal of Thermophysics* from Springer.

We also thank T. Ishikawa, S. Ozawa, and O. Takeda, who organized the OS12. The organized session would not have been possible without the strong support from the local committee of the following members: A. Komiya, E. Shoji, G. Kikugawa, H. Aoki, J. Okajima, M. Adachi, M. Kubo, M. Ohtsuka, M. Sasaki, O. Takeda, S. Kawanishi, Y. Kanda (Tohoku University), Y. Matsushita (Hirosaki University), H. Gonome (Yamagata University), S. Tanaka (Nihon University), R. Endoh (Toray Research Center, Inc.), and K. Hatori (BETHEL Co., Ltd.), S. Ikeuchi (ADVANCE RIKO, Inc.), K. Ishikawa (NETZSCH Japan K.K.), Y. Kawakami (Takasago Thermal Engineering Co., Ltd.), O. Tsukamoto (NETZSCH Japan K.K.), and S. Yamada (SANTA Baking Laboratory).

Finally, we gratefully acknowledge Ivan Egry, editor of HTHP, for his support in promoting the publication of this special issue.

The 14th ATPC will be held in Shanghai, China in 2025. We sincerely hope that you will be there by 2025 to meet and share the new frontiers of knowledge in our scientific field.



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