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Editorial

Preface to the special section on innovation in materials processing

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Materials processing is a very important step that must be followed to manufacture a product from the constituent raw materials. In recent years, as the final products are becoming smaller, lighter, and more complicated, innovations in materials processing are required. Thus, it is necessary to bring together leading scientists, researchers, engineers, practitioners, technology developers, and policy makers in materials processing to share their expertise and latest research progress. For this reason, we formed the "International Symposium on Innovation in Materials Processing 2021 (ISIMP 2021), which was held in Jeju from October 26 to October 29, 2021.

In this special section, we have showcased our outstanding research findings in Advanced Materials Processing, Advanced Powder Metallurgy, Characterization and Modeling, Energy and Functional Materials, Nanocomposites and Nanoporous Materials, Rare Metals and Recycling, Refractory Metals and Hard Materials. Also, all the main aspects have been covered including synthesis, microstructure development, properties and applications of these materials. For example, Karthik et al. [1] investigated the influence of microstructure on the corrosion behavior of CuSn alloys by the selective laser melting process. Lee et al. [2] presented the flow modeling and simulation results for a better understanding of the effects of shear-rate-dependent viscosities on the fluid flow for lithium-ion batteries. Lee et al. [3] reported the optimum route to fabricate a dense W-based composite with homogeneous dispersion of nano-sized La_2O_3 particles prepared by ultrasonic spray pyrolysis. Sharma et al. [4] studied the effect of process control agent (PCA) on the alloying of Al and Ni powder mixtures using cryomilling.

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In closing this preface, we are delighted to have this opportunity to work with the Journal of Materials Science. Also, we would like to extend special thanks to Profs. Barry Carter (Editor-in-Chief) and Grant Norton (Deputy Editor-in-Chief) for their support during this process. We are deeply grateful to all the researchers who have contributed to this special section by submitting manuscripts and/or serving as reviewers.

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