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EDITORIAL

Special issue on the occasion of the "3rd International Congress on Advanced Materials-AM2016"

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Innovative materials belong to the driving forces of today's technology. Without them, our modern life would literally be impossible: one just has to consider how much materials "know-how" is present in an apparently "simple" mass product, as an integrated circuit or a touch screen. Furthermore, aspects of energy harvesting, conversion and storage, as well as "green chemistry" to reduce the environmental footprint of our modern societies play important roles.

Of course, these interests have led to a large number of scientific conferences and forums dealing with Materials Science every year. Among those, AM2016 was already the third conference of a series supported by the International Union of Advanced Materials (http://www.iuam.org) and the Chinese Advanced Materials Society (http://www.thecams.org). For the first time, it was held outside China and hosted by the Department of Chemistry at Chulalongkorn University, Bangkok, Thailand, November 27–30. The congress brought together leading specialists from many fields of modern Materials Design. The present special issue collects some of the papers presented at the conference. They are substantially extended, fully peer-reviewed versions of the respective conference contributions. They represent the wide variety of modern Materials Science: some papers deal with (green) synthesis of nanoparticles and/or core–shell nanostructures. Also, they include mechanistic studies on the adsorption behavior of such nanostructured materials, synthesis and characterization of composites, and characterization of materials according to their respective technological properties. Other papers focus on utilizing materials derived from natural products in clinical/medical settings, such as, e.g., patches for drug release, to improve sustainability of the resulting products and to reduce their carbon footprint. Finally, theoretical considerations as well as studies to improve "classical" bulk materials can be found in this special issue.

I hope that readers will agree that the beauty of Materials Science manifests itself in this large variety of topics. May they enjoy exploring very different aspects from almost "traditional" synthesis, to nanoparticle protocols to theoretical considerations to name but a few. May they inspire some to attend the 4th International Congress on Advanced Materials, which is currently in its planning stage.

Again, it has been a great pleasure and honor for me to act as Associate Editor for this issue. I thank the members of the editorial team and I am looking forward to further collaboration between the conference series and the journal.

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