



materials



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Structure, Synthesis, and Applications of TiO₂-Based Materials

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Message from the Guest Editors

An exponential growth of research activities focused on TiO₂-based materials has been seen in the past decades. In fact, some reviews highlight TiO₂ as the most studied transition-metal oxide and one of the most investigated compounds in materials science. Over the last years, continuing breakthroughs in the synthetic protocols and development of TiO₂-based materials have brought new findings on the synthesis of novel structures with controlled size/shape and electronic, optical, morphologic properties.

TiO₂-based materials have been used traditionally for catalysis/photocatalytic and photovoltaic applications. In this sense, this Special Issue aims to compile relevant contributions presenting recent advances in photocatalytic/photovoltaic application studies, kinetics and mechanism analysis, selectivity and stability analysis as well as light-matter interaction using TiO₂-based materials. In addition, TiO₂-based materials have shown remarkable results in others fields including sensing, electrochromic as well as hydrogen storage among others, all of which can be also featured in this collection.



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Special Issue



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Message from the Editor-in-Chief

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