



Special Issue Reprint

## New Advances into Nanostructured Oxides, 2nd Edition

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Edited by Silvia Mostoni Roberto Nisticò

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In recent years, inorganic oxidic nanomaterials have been extensively investigated for their outstanding properties that allow for their use within a large variety of emerging fields of interest, ranging from (photo)catalysis to the development of functional nanocomposites. Nanoscopic metal (eventually mixed) oxides are often fabricated following soft-chemistry approaches, characterized by the possibility of favoring specific morphologies, particle dimensions, and surface porosities through different synthetic methods and templating processes. In this context, surface functionalities and reactivity play a major role in the determination of the final properties of nanomaterials. For this reason, further surface functionalization with specific chemical moieties is often recommended to extend their field of application. This Special Issue aims at extending the comprehension of the mechanisms involved in the synthesis and templating of inorganic oxidic nanomaterials, as well as in their surface functionalization and reactivity. Additionally, this Special Issue aims at increasing the knowledge on the latest advances of these systems in (photo)catalysis; environmental cleanup processes; energy storage; controlled transport and/or release; biomedicine; sensing; and the development of smart-materials, stimuli-responsive materials, and nanocomposites. Furthermore, particular attention is dedicated toward studies describing alternative ecofriendly preparation methods.



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