

1. Record Nr.	UNINA9910404084103321
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Titolo	Synthesis and Applications of Nanomaterials for Photocatalysis and Electrocatalysis
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2020
ISBN	3-03928-832-6
Descrizione fisica	1 online resource (213 p.)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>Heterogeneous catalysis, exploiting photo- and electrochemical reactions, has expanded rapidly in recent decades, having undergone various developments, especially from both energetic and environmental points of view. Photocatalysis plays a pivotal role in such applications as water splitting and air/water remediation. Electrocatalysis can be found in a large array of research fields, including the development of electroanalytical sensors, wastewater treatment, and energy conversion devices (e.g., batteries, fuel and solar cells, etc.). Therefore, the fine control of the synthetic procedures, together with extensive physicochemical characterisations of the tailor-made catalytic nanomaterials, are of fundamental importance to achieving the desired results. The present book will include recent enhancements in oxide/metal nanoparticles for photocatalytic and electrocatalytic applications, especially in the fields of pollutants abatement and energy conversion.</p>