1. Record Nr. UNINA9910634045103321

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Titolo	Advancement of Metal Oxide Materials for Photocatalytic Application : Selected Strategies to Achieve Higher Efficiency / / by Vitaly Gurylev
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	9783031205538 9783031205521
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (234 pages)
Collana	Chemistry and Materials Science Series
Disciplina	546.721 546.3
Soggetti	Materials Catalysis Force and energy Photocatalysis Electrocatalysis Metals Metal-organic Frameworks Materials for Energy and Catalysis Metals and Alloys
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Photocatalysis: basics principles -- Strategy I: Doping -- Strategy II: Utilizing metal nanoparticles in the form of deposited or embedded formations -- Strategy III: Formation of heterojunction -- Strategy IV: Playing with morphology and structure of metal oxide materials -- Intrinsic deficiency -- Strategies to improve photocatalysts: future perspectives.
Sommario/riassunto	This book investigates applicability of various emerging strategies to improve important properties and features of metal oxide materials that can be used further to advance their photocatalytic and photoelectrochemical performances. The range of discussed strategies includes introduction of intrinsic and extrinsic deficiencies, fabrication

of heterojunction and utilizing of metal nanoparticles in the form of deposited or embedded formations. Each of them is addressed as separate case in order to reach full and comprehensive assessment of their most fundamental principles and basics as well as accessing pivotal advantages and disadvantages. Furthermore, additional discussion is dedicated to achieving thorough awareness over methods and experimental protocols that are used to realize them and also probing changes which they induce in electronic and geometrical configurations of metal oxide materials. It is believed that this book might become a valuable addition to extend further current knowledge about photocatalysis and material processing. Investigates strategies to improve efficiency and stability of metal oxide materials to perform photocatalytic reactions; Access the most fundamental principles of photocatalysis with regard to its expected advancement and future perspective; Compares applicability of strategies to specific metal oxide materials and defines factors that have the greatest effect.