1. Record Nr. UNINA9910812915303321

Titolo	Photocatalytic materials & surfaces for environmental cleanup III : special topic volume with invited peer reviewed papers only / / edited by Rajesh J. Tayade
Pubbl/distr/stampa	Durnten-Zurich, Switzerland : , : Trans Tech Publications, , [2013] ©2013
ISBN	3-03826-126-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (315 p.)
Collana	Materials science forum ; ; olume 764
Altri autori (Persone)	TayadeRahesh J
Disciplina	620.19 628.1/66
Soggetti	Photocatalysis Water - Purification - Photocatalysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Photocatalytic Materials & Surfaces for Environmental Cleanup III; Preface; Table of Contents; Conversion of Carbon Dioxide into Several Potential Chemical Commodities Following Different Pathways - A Review; Photocatalytic Reduction of Carbon Dioxide; Investigation of Solar Photoelectrochemical Hydrogen Generation Ability of Ferrites for Energy Production; Photocatalytic Degradation of Aqueous Nitrobenzene Solution Using Nanocrystalline Mg-Mn Ferrites; Photocatalysis by Nanoparticles of Titanium Dioxide for Drinking Water Purification: A Conceptual and State-of-Art Review Photocatalytic Hydrogen ProductionEmergent Synthesis of Bismuth Subcarbonate Nanomaterials with Various Morphologies towards Photocatalytic Activities - An Overview; Influence of Mn2+ Ion on the Surface of BiOCl Catalyst for Photocatalytic Degradation of Methylene Green under Visible Light Illumination; Photocatalytic Activities of CdO-Fe2O3, CdO-CuFe2O4 and CdO-ZnFe2O4 Nanocomposites; Preparation, Characterization and Photocatalytic Application of Carbonate Modified Titania; Preparation and Applications of Non-Metal Doped Semiconductors as Photocatalysts Functionalized Silicate Supported TiO2-ZnO Nanocomposite Film and its Application in Simultaneous Photocatalytic Degradation of Toxic

MoleculesFabrication and Photoelectrochemical Characterization of Fe, Co, Ni and Cu-Doped TiO2 Thin Films; Photocatalytic Degradation of Alizarin Cyanine Green G, Reactive Red 195 and Reactive Black 5 Using UV/TiO2 Process; Chemically Deposited Cd1-xPbxSe Thin Films for Photoelectrochemical Studies; Keywords Index; Authors Index

Sommario/riassunto

The Special Topic Volume is a result from the contribution of forty-one experts from the international scientific community in the respective field of research. It thoroughly covers recent work done in the area of photocatalysis. In recent year a boosting interest in the exploration of renewable energy sources and environmental abatement attracted the promises of photocatalysis particularly in hydrogen production by water splitting, storage of solar energy in sustainable chemical fuels, decomposition and removal of environmental pollutants and disinfection of water. Current environmental conce