

1. Record Nr.	UNINA9910298635203321
Autore	Hajjaji Anouar
Titolo	Chromium Doped TiO ₂ Sputtered Thin Films : Synthesis, Physical Investigations and Applications // by Anouar Hajjaji, Mosbah Amlouk, Mounir Gaidi, Brahim Bessais, My Ali El Khakani
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-13353-5
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (97 p.)
Collana	Manufacturing and Surface Engineering, , 2365-8223
Disciplina	620.11 620.11223 620.44 621.89
Soggetti	Materials—Surfaces Thin films Materials science Tribology Corrosion and anti-corrosives Coatings Surfaces and Interfaces, Thin Films Characterization and Evaluation of Materials Tribology, Corrosion and Coatings
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.
Nota di contenuto	TiO ₂ Properties and Deposition Techniques -- Synthesis and characterization of TiO ₂ -Cr thin films -- Microstructure and Optical Properties of Pure and CR-Doped TiO ₂ Thin Films -- Gas Sensors and Photo-Conversion Applications -- TiO ₂ Photocatalysis -- Current Status and Perspectives for Chrome-Doped TiO ₂ Thin Films.
Sommario/riassunto	This book presents co-sputtered processes ways to produce chrome doped TiO ₂ thin films onto various substrates such as quartz, silicon and porous silicon. Emphasis is given on the link between the experimental preparation and physical characterization in terms of Cr

content. Moreover, the structural, optical and optoelectronic investigations are emphasized throughout. The book explores the potential applications of devices based on Cr doped TiO₂ thin films as gas sensors and in photocatalysis and in the photovoltaic industry. Also, this book provides extensive leads into research literature, and each chapter contains details which aim to develop awareness of the subject and the methods used. The content presented here will be useful for graduate students as well as researchers in materials science, physics, chemistry and engineering.
