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| Titolo                  | Chromium Doped TiO <sub>2</sub> 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<br>620.11223<br>620.44<br>621.89   |
| Soggetti                | Materials—Surfaces<br>Thin films<br>Materials science<br>Tribology<br>Corrosion and anti-corrosives<br>Coatings<br>Surfaces and Interfaces, Thin Films<br>Characterization and Evaluation of Materials<br>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 <sub>2</sub> Properties and Deposition Techniques -- Synthesis and characterization of TiO <sub>2</sub> -Cr thin films -- Microstructure and Optical Properties of Pure and CR-Doped TiO <sub>2</sub> Thin Films -- Gas Sensors and Photo-Conversion Applications -- TiO <sub>2</sub> Photocatalysis -- Current Status and Perspectives for Chrome-Doped TiO <sub>2</sub> Thin Films. |
| Sommario/riassunto      | This book presents co-sputtered processes ways to produce chrome doped TiO <sub>2</sub> 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 TiO<sub>2</sub> 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.

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