Record Nr. UNINA9910876803303321 Autore Takadoum Jamal **Titolo** Nanomaterials and Surface Engineering Pubbl/distr/stampa Hoboken,: Wiley, 2013 **ISBN** 1-118-61852-1 1-118-61861-0 1-299-31538-0 1-118-61882-3 Edizione [1st ed.] Descrizione fisica 1 online resource (374 p.) **ISTE** Collana Disciplina 620.44 620.5 620/.44 Soggetti Nanostructured materials Protective coatings -- Materials Surfaces Protective coatings - Materials Chemical & Materials Engineering **Engineering & Applied Sciences** Materials Science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di contenuto Cover; Nanomaterials and Surface Engineering; Title Page; Copyright Page; Table of Contents; Preface; Chapter 1. Architecture of Thin Solid Films by the GLAD Technique; 1.1. Introduction; 1.2. The GLAD technique; 1.2.1. Deposition with an oblique angle; 1.2.2. Deposition on mobile substrate; 1.3. Resulting properties; 1.3.1. Structure and morphology; 1.3.1.1. Crystallography; 1.3.1.2. Porosity; 1.3.1.3. Surface morphology; 1.3.2. Mechanical properties; 1.3.2.1. Elasticity; 1.3.2.2. Hardness; 1.3.3. Optical properties; 1.3.3.1. Filtering; 1.3.3.2. Birefringency; 1.3.4. Electronic properties 1.3.4.1. Conductivity1.3.4.2. Photonics; 1.4. Conclusions and outlooks;

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Sommario/riassunto

This book covers a wide range of topics that address the main areas of interest to scientists, engineers, and students concerned with the synthesis, characterization and applications of nanomaterials. Development techniques, properties, and examples of industrial applications are all widely represented as they apply to various nanostructured materials including nanocomposites and multilayered nanometric coatings. It is recommended to anyone working in the field of nanomaterials, especially in connection with the functionalization and engineering of surfaces.

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