1. Record Nr. UNINA9910784566803321 Handbook of nanostructured materials and nanotechnology. Volume 3 **Titolo** Electrical properties [[electronic resource] /] / edited by Hari Singh Nalwa San Diego, : Academic Press, c2000 Pubbl/distr/stampa **ISBN** 1-281-01888-0 9786611018887 0-08-053364-7 Descrizione fisica 1 online resource (3593 p.) Altri autori (Persone) NalwaHari Singh <1954-> Disciplina 620.43 620.5 620/.5 21 Soggetti Nanostructured materials Nanotechnology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and indexes. Nota di bibliografia Nota di contenuto 9780080533643 001 WEB; Front Cover; Handbook of Nanostructured Materials and Nanotechnology; Copyright Page; Contents; About the Editor; List of Contributors; Chapter 1. CHEMICAL SYNTHESIS OF NANOSTRUCTURED METALS, METAL ALLOYS, AND SEMICONDUCTORS; 1. Introduction; 2. Synthesis of Nanostructured Materials; 3. Synthesis of Metals, Intermetallics, and Semiconductors; 4. Conclusions; References; Chapter 2. NANOPARTICLES FROM LOW-PRESSURE, LOW-TEMPERATURE PLASMAS: 1. Introduction: 2. Scientific and Industrial Context; 3. Technology; 4. Development of Particles in Silane Plasmas; 5. Materials 6. Applications7. Final Summary; Acknowledgments; References; Chapter 3. SYNTHESIS OF NANOSTRUCTURED COATINGS BY HIGH-VELOCITY OXYGEN-FUEL THERMAL SPRAYING; 1. Introduction; 2. Overview of Thermal Spraying; 3. High-Velocity Oxy-Fuel Thermal Spraying: 4. Future Perspectives: Acknowledgments: References: Chapter 4. LOW-TEMPERATURE COMPACTION OF NANOSIZE POWDERS;

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Sommario/riassunto

Nanostructured materials is one of the hottest and fastest growing areas in today's materials science field, along with the related field of solid state physics. Nanostructured materials and their based technologies have opened up exciting new possibilites for future applications in a number of areas including aerospace, automotive, x-ray technology, batteries, sensors, color imaging, printing, computer chips, medical implants, pharmacy, and cosmetics. The ability to change properties on the atomic level promises a revolution in many realms of science and technology. Thus, this book detail