Record Nr. UNINA9910350343503321 Nano-Energetic Materials [[electronic resource] /] / edited by Shantanu **Titolo** Bhattacharya, Avinash Kumar Agarwal, T. Rajagopalan, Vinay K. Patel Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2019 **ISBN** 981-13-3269-X Edizione [1st ed. 2019.] 1 online resource (297 pages) Descrizione fisica Collana Energy, Environment, and Sustainability, , 2522-8366 Disciplina 620.115 Soggetti Nanotechnology Materials science Force and energy Energy storage Engineering—Materials **Energy Materials Energy Storage** Materials Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Interface mechanical properties in Energetic Materials using Nano-scale Nota di contenuto impact experiment and Nano-Mechanical Raman spectroscopy --Aluminum-based Nanoenergetic Materials- State of the Art & Future Perspectives -- Boron Nanoparticles for Rocket Applications-Challenges and Prospects'.-Nano-energatic Material on Chips --Nanotechnology and photocatalytic materials for the production of hydrogen -- Sensitivity Mechanism for Nano Nitroamine --Nano/micro-Electrode engineering for future batteries -- Nano-Energetic Materials for Defense Application -- Nanostructured energetic composites: An emerging paradigm -- Nanomaterials for

Sommario/riassunto

This book presents the latest research on the area of nano-energetic materials, their synthesis, fabrication, patterning, application and integration with various MEMS systems and platforms. Keeping in mind

energy storage -- Different approaches to micro/ nanofabricate and pattern energetic materials -- Nanoenergetic materials as catalysts -- Digital Micro-thrusters for space applications with solid propellants.

the applications for this field in aerospace and defense sectors, the articles in this volume contain contributions by leading researchers in the field, who discuss the current challenges and future perspectives. This volume will be of use to researchers working on various applications of high-energy research.