

1. Record Nr.	UNISA996466726403316
Titolo	Physics and mechanics of new materials and their applications : proceedings of the International Conference PHENMA 2020 // Ivan A. Parinov [and three others] editors
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-76481-8
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XXIV, 601 p. 271 illus., 196 illus. in color.)
Collana	Springer Proceedings in Materials ; ; Volume 10
Disciplina	620.11
Soggetti	Materials science Nanostructured materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Highly Stable Pt/C Catalysts with Different Mass Fraction of Platinum -- Investigation of the Activity of PtCuAu/C Electrocatalysts in Alcohols Electrooxidation Reaction in Alkaline Media -- Influence of Acid Treatment on The Functional Characteristics of PtCu/C Electrocatalysts -- Carbon Nanoparticles from Graphite Nitrate Cointercalation Compounds with Carboxylic Acids -- Thermally Expanded Graphite: Sorption Properties and Carbon Nanoparticles Obtaining -- Phase Formation and Optimisation of the Properties of Solid Solutions in a KNN-Based System for Hydroacoustics Devices.
Sommario/riassunto	This book presents selected peer-reviewed contributions from the 2020 International Conference on "Physics and Mechanics of New Materials and Their Applications", PHENMA 2020 (26–29 March 2021, Kitakyushu, Japan), focusing on processing techniques, physics, mechanics, and applications of advanced materials. The book describes a broad spectrum of promising nanostructures, crystal structures, materials, and composites with unique properties. It presents nanotechnological design approaches, environmental-friendly processing techniques, and physicochemical as well as mechanical studies of advanced materials. The selected contributions describe recent progress in computational materials science methods and

algorithms (in particular, finite-element and finite-difference modelling) applied to various technological, mechanical, and physical problems. The presented results are important for ongoing efforts concerning the theory, modelling, and testing of advanced materials. Other results are devoted to promising devices with higher accuracy, increased longevity, and greater potential to work effectively under critical temperatures, high pressure, and in aggressive environments.

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