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Nota di contenuto	Part 1: Nanomaterials and Nanocomposites -- 1. PREDICTING THE STABILITY OF ORTHOARSENATES Lu1–xLnxAsO4 Ln = Sm–Yb, Sc, Y, and La1–xLnxAsO4, Ln = Ce, Pr, Nd SOLID SOLUTIONS -- 2. Novel silica based material with nano-functional groups for analytical application -- 3. FINEMET micro-ribbons: the experimental identication of the object -- 4. Heavy metals removal using nanostructured carbon-based composites in the presence of various organic compounds -- 5. On the crystallization ability of 80GeSe2-20Ga2Se3 glasses -- 6. Kinetics of ZnMoO4•0.8H2O and -ZnMoO4 formation at ultrasonic treatment of ZnO and MoO3 mixture -- 7. Ti-implanted nanoscale layers for the chloramphenicol photocatalytic decomposition -- 8. Impedance spectroscopy of NaBi(MoO4)2:Gd3+ -- 9. The practical and industrial significance of magnetic materials based on NiFe2O4. A review -- 10. Membranes Modified with Advanced Carbon Nanomaterials -- 11. Dependence of the nanocomposite systems resistance on the initial materials dispersity -- 12. ELECTRICAL RESISTANCE OF MODIFIED THERMOEXFOLIATED GRAPHITE -- 13. Methods for controlling the

properties of nanoporous layers in granules of porous ammonium nitrate: stage of drying -- 14. Nanoporous Organo-Mineral Fertilizers obtained by using of Granule Shell Technology -- 15. Influence of changes in the phase state of the surface and external factors of laser irradiation on the nanocraters formation -- 16. Mechanisms of magnetic ordering in quasi-2D BEDT-TTF conductors -- 17. Theoretical basics of final drying of ammonium nitrate with nanoporous structure in gravitational shelf dryers -- 18. Influence of the Preparation Method and Magnesium Ions Substitution on the Structure and Magnetic Properties of Lithium-Iron Ferrites -- 19. All-angled perfect transmission of the ul-trarelativistic quasiparticles through the graphene quantum well -- 20. Structure, Thermophysical Properties and Thermodynamics of Formation of Nanocomposites Based on Epoxy Resin and Carbon Nanotubes -- Part 2: Nanostructure Surfaces -- 21. Dispersion Kinetics of Thin Double Niobium-Nickel Films Deposited onto Oxide Ceramic Materials and Annealed in Vacuum -- 22. Stripping voltammetry of nanoscale films of Cu-Zn, Cu-Sn, Zn-Ni alloys -- 23. The stability analysis of stationary modes of the ice surface softening during the friction process -- 24. PALS approach to study of water-adsorption processes in nanostructured MgAl2O3 ceramics: from three- to four-component fitting procedures -- 25. Thin films of La1-xSm1-xVO4:Ca luminescent vanadate nanoparticles deposited with various methods on glass substrates -- 26. Carbon solid acids prepared from the surface-brominated nanoporous activated carbons -- 27. The Conductivity Mechanisms of ZnO Thin Films Structured Using Polyvinyl Alcohol -- 28. Deposition and growth of the AlCoCuFeNi high entropy alloy thin film: molecular dynamics simulation -- 29. Semiconductor Magnetosensitive Structure two-dimensional Model Representation -- 30. Thermodynamic states and transitions diagrams in surface engineering for the material degradation prevention -- 31. The Investigation of morphology, topography and surface fractality of Heterooxide composite coatings.

Sommario/riassunto

This book highlights some of the latest advances in nanotechnology and nanomaterials from leading researchers in Ukraine, Europe and beyond. It features contributions presented at the 8th International Science and Practice Conference Nanotechnology and Nanomaterials (NANO2020), which was held on August 26–29, 2020 at Lviv Polytechnic National University, and was jointly organized by the Institute of Physics of the National Academy of Sciences of Ukraine, University of Tartu (Estonia), University of Turin (Italy), and Pierre and Marie Curie University (France). Internationally recognized experts from a wide range of universities and research institutions share their knowledge and key findings on material properties, behavior, and synthesis. This book’s companion volume also addresses topics such as nano-optics, energy storage, and biomedical applications.