1. Record Nr. UNISA996466722903316

Autore	Shchepetilov Alexey V.
Titolo	Calculus and mechanics on two-point homogenous Riemannian spaces / / Alexey V. Shchepetilov
Pubbl/distr/stampa	Berlin, Germany : , : Springer, , [2006] ©2006
ISBN	1-280-62742-5 9786610627424 3-540-35386-0
Edizione	[1st ed. 2006.]
Descrizione fisica	1 online resource (265 p.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 707
Disciplina	516.362
Soggetti	Riemannian manifolds Mathematical physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Introduction.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Two-Point Homogeneous Riemannian Spaces -- Differential Operators on Smooth Manifolds -- Algebras of Invariant Differential Operators on Unit Sphere Bundles Over Two-Point Homogeneous Riemannian Spaces -- Hamiltonian Systems with Symmetry and Their Reduction -- Two-Body Hamiltonian on Two-Point Homogeneous Spaces -- Particle in a Central Field on Two-Point Homogeneous Spaces -- Classical Two-Body Problem on Two-Point Homogeneous Riemannian Spaces -- Quasi-Exactly Solvability of the Quantum Mechanical Two-Body Problem on Spheres.
Sommario/riassunto	The present monograph gives a short and concise introduction to classical and quantum mechanics on two-point homogenous Riemannian spaces, with empahsis on spaces with constant curvature. Chapter 1-4 provide the basic notations from differential geometry for studying two-body dynamics in these spaces. Chapter 5 deals with the problem of finding explicitly invariant expressions for the two-body quantum Hamiltonian. Chapter 6 addresses one-body problems in a central potential. Chapter 7 studies the classical counterpart of the quantum system of chapter 5. Chapter 8 investigates some applications in the quantum realm, namely for the coulomb and oscillator

potentials.

2. Record Nr. UNINA9910140488903321

Autore	Rao C. N. R (Chintamani Nagesa Ramachandra), <1934->
Titolo	Essentials of inorganic materials synthesis / / C. N. R. Rao, Kanishka Biswas
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2015 ©2015
ISBN	1-118-89266-6 1-118-89267-4
Descrizione fisica	1 online resource (234 p.)
Classificazione	SCI013030TEC021000SCI050000
Disciplina	541/.39
Soggetti	Inorganic compounds - Synthesis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Title Page; Copyright Page; Contents; Author Biographies; Preface; Chapter 1 Introduction; References; Chapter 2 Common Reactions Employed in Synthesis; 2.1 Soft-Chemistry Routes; References; Chapter 3 Ceramic Methods; References; Chapter 4 Decomposition of Precursor Compounds; References; Chapter 5 Combustion Synthesis; References; Chapter 6 Arc and Skull Methods; References; Chapter 7 Reactions at High Pressures; References; Chapter 8 Mechanochemical and Sonochemical Methods; 8.1 Mechanochemistry; 8.2 Sonochemistry; References; Chapter 9 Use of Microwaves; References Chapter 10 Soft Chemistry Routes10.1 Topochemical Reactions; References; 10.2 Intercalation Chemistry; References; 10.3 Ion Exchange Reactions; References; 10.4 Use of Fluxes; References; 10.5 Sol-Gel Synthesis; References; 10.6 Electrochemical Methods; References; 10.7 Hydrothermal, Solvothermal and Ionothermal Synthesis; References; Chapter 11 Nebulized Spray Pyrolysis; References; Chapter 12 Chemical Vapour Deposition and Atomic Layer Deposition; References; Chapter 13 Nanomaterials; 13.1 Nanoparticles; 13.1.1 Use of Microemulsions; 13.1.2 Thermal Decomposition

13.1.3 Hydrothermal and Solvothermal Synthesis13.1.4 Sol-Gel Method; 13.1.5 Phase-Transfer Method; 13.1.6 Microwave Synthesis; 13.1.7 Use of the Liquid-Liquid Interface; 13.2 Core-Shell Nanocrystals; 13.3 Nanowires; 13.3.1 Metals; 13.3.2 Elemental Semiconductors; 13.3.3 Metal Oxides; 13.3.4 Metal Chalcogenides; 13.3.5 Metal Pnictides and Other Materials; 13.3.6 Oriented Attachment; 13.3.7 Coaxial Cables and Other Hybrid Nanostructures; 13.4 Inorganic Nanotubes; 13.5 Graphene-like Structures of Layered Inorganic Materials; References; Chapter 14 Materials
14.1 Metal Borides, Carbides and NitridesReferences; 14.2 Metal Chalcogenides; References; 14.3 Metal Halides; References; 14.4 Metal Silicides and Phosphides; References; 14.5 Intergrowth Structures and Misfit Compounds; 14.5.1 Intergrowth Structures; 14.5.2 Misfit Compounds; References; 14.6 Intermetallic Compounds; References; 14.7 Superconducting Compounds; References; 14.8 Porous Materials; 14.8.1 Mesoporous Silica Materials; 14.8.2 Aluminophosphates ; 14.8.3 Metal Organic Frameworks (MOFs); References; Index; Supplemental Images; EULA

Sommario/riassunto

"Provides an introduction to inorganic materials synthesis. Covers common reactions employed in synthesis, ceramic procedures, decomposition of precursor compounds, combustion synthesis, arc and skull methods, reactions at high pressures, mechanochemical methods, use of microwaves, soft chemistry routes, topochemical reactions, intercalation chemistry, Ion-exchange methods of fluxes, sol-gel synthesis, electrochemical methods, hydro-, solvo- and iono-thermal methods, nebulized spray pyrolysis, CVD and ALD, nanomaterials, nanoparticles, nanowires, nanotubes, graphene-like layered structures, materials, metal borides, carbides and nitrides, metal oxides and chalcogenides, metal fluorides, metal silicides, phosphides, intergrowth structures, metal-rich compounds and intermetallics, superconducting compounds, and porous materials, including meal-organic frameworks" --