1. Record Nr. UNINA9910557768703321

Autore	Prestopino Giuseppe
Titolo	Layered Double Hydroxides
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021
Descrizione fisica	1 online resource (186 p.)
Soggetti	Research and information: general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Very few materials have attracted so much attention in recent years, both from researchers and industry, as layered double hydroxides (LDHs) have. LDHs, which are also referred to as anionic clays or hydrotalcites, are a wide class of inorganic ionic lamellar clay materials consisting of alternately stacked positively charged metal hydroxide layers with intercalated charge-balancing anions in hydrated interlayer regions. Their unique properties, such as their extremely high versatility in chemical composition and intercalation ability, extraordinary tuneability in composition as well as morphology, good biocompatibility and high anion exchangeability, have triggered immense interdisciplinary interest for their use in many different fields of chemistry, biology, medicine, and physics. Indeed, the applications of LDHs are constantly growing: LDHs, in the form of aggregated lamellar clusters, exfoliated single-layer nanosheets, or hierarchical films of interconnected nanoplatelets, can be effectively used as nanoscale vehicles in drug delivery, heterogeneous catalysts and supports for molecular catalysts, ion exchangers and adsorbents, solid electrolytes or fillers in electrochemistry, for the fabrication of superhydrophobic surfaces, water treatment and purification, and the synthesis of functional thin films. This book gathers the contributions to the Special Issue "Layered Double Hydroxides" of Crystals, which includes two review articles and seven research papers.

2. Record Nr. UNINA9910557366803321

Autore	Pena Victor Pacheco
Titolo	Terahertz Technology and Its Applications
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021
Descrizione fisica	1 online resource (162 p.)
Soggetti	Research and information: general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	The Terahertz frequency range (0.1 - 10)THz has demonstrated to provide many opportunities in prominent research fields such as high-speed communications, biomedicine, sensing, and imaging. This spectral range, lying between electronics and photonics, has been historically known as "terahertz gap" because of the lack of experimental as well as fabrication technologies. However, many efforts are now being carried out worldwide in order improve technology working at this frequency range. This book represents a mechanism to highlight some of the work being done within this range of the electromagnetic spectrum. The topics covered include non-destructive testing, teraherz imaging and sensing, among others.