Record Nr. UNINA9910788813403321 Autore Chen Liangyao **Titolo** Advances in condensed matter optics / / Liangyao Chen [and five others]; edited by Liangyao Chen Pubbl/distr/stampa Berlin, Germany:,: De Gruyter:,: Shanghai Jiao Tong University Press, 2015 ©2015 **ISBN** 1-5231-0446-5 3-11-030702-2 3-11-038818-9 Descrizione fisica 1 online resource (290 p.) Advances in Optical Physics;; Volume 7 Collana Disciplina 530.4/12 Soggetti Condensed matter - Optical properties **Optics** Metamaterials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Front matter -- The series: Advances in Optical Physics -- Preface --Nota di contenuto Contents -- 1. Optoelectronic properties of narrow band gap semiconductors -- 2. The group velocity picture: the dynamic study of metamaterial systems -- 3. Study of the characteristics of light propagating at the metal-based interface -- 4. Photo-induced spin dynamics in spintronic materials -- 5. Research on the photoelectric effect in perovskite oxide heterostructures -- 6. Magnetic resonance and coupling effects in metallic metamaterials -- Index -- Backmatter The authors of this book, all with a background in condensed matter Sommario/riassunto physics, have carried out advanced researches in recent years to study the optical and magneto-optical properties of many kinds of new functional materials, including metal-based metamaterials, narrow-towide-bandgap semiconductors, thin films, and magnetic and magnetooptical materials by using different types of optical methods and instruments. This book describes some of the more recent progresses

and developments in the study of condensed matter optics in both

theoretic and experimental fields. It will help readers, especially graduate students and scientists who are studying and working in the nano-photonic field, to understand more deeply the characteristics of light waves propagated in nano-structure-based materials with potential applications in the future.