Record Nr. UNINA9910163006103321 Photoactive Semiconductor Nanocrystal Quantum Dots: Fundamentals **Titolo** and Applications / / edited by Alberto Credi Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2017 **ISBN** 3-319-51192-0 Edizione [1st ed. 2017.] 1 online resource (VIII, 174 p. 96 illus., 78 illus. in color.) Descrizione fisica Topics in Current Chemistry Collections, , 2367-4067 Collana Disciplina 541 Soggetti Physical chemistry Semiconductors Nanotechnology Nanochemistry **Physical Chemistry** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Excited-State Dynamics in Colloidal Semiconductor Nanocrystals --Semiconductor Quantum Dots with Photoresponsive Ligands --Interfacing Luminescent Quantum Dots with Functional Molecules for Optical Sensing Applications -- Light-Harvesting Antennae Based on Silicon Nanocrystals -- Luminescent Rare-earth-based Nanoparticles: A Summarized Overview of their Synthesis, Functionalization, and Applications -- Recent Progress in Quantum Dot Based White Light-Emitting Devices -- Hybrid Semiconductor-Metal Nanorods as Photocatalysts. <or biological="" applications -- gds="" in="" biomolecular="" devices -- luminescent="" heteronanocrystals. The series Topics in Current Chemistry Collections presents critical Sommario/riassunto reviews from the journal Topics in Current Chemistry organized in topical volumes. The scope of coverage is all areas of chemical science including the interfaces with related disciplines such as biology. medicine and materials science. The goal of each thematic volume is to give the non-specialist reader, whether in academia or industry, a comprehensive insight into an area where new research is emerging which is of interest to a larger scientific audience. Each review within

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