Record Nr. UNINA9910809498003321 Designing dendrimers / / edited by Sebastiano Campagna, Paola **Titolo** Ceroni, Fausto Puntoriero Pubbl/distr/stampa Hoboken, NJ,: Wiley, 2012 **ISBN** 1-118-11106-0 1-283-28276-3 9786613282767 1-118-11105-2 Edizione [1st ed.] Descrizione fisica 1 online resource (622 p.) Classificazione SCI050000 Altri autori (Persone) CampagnaSebastiano CeroniPaola PuntorieroFausto <1974-> Disciplina 620.1/92 Soggetti **Dendrimers Polymers** 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 and index. Nota di contenuto Designing Dendrimers; CONTENTS; Preface; List of Contributors; 1 Dendrimers as quantized nano-modules in the nanotechnology field; 2 Novel methods for dendrimer synthesis; 3 Designer monomers to tailored dendrimers; 4 Dendronized polymers: state of the art in Zurich; 5 Shape persistent polyphenylene-based dendrimers; 6 Dendrimer chemistry with fullerenes; 7 Redox and fluorescent open core dendrimers; 8 Redox-active organometallic dendrimers as electrochemical sensors: 9 Shape-persistent conjugated dendrimers for organic electronics; 10 Fine-controlled metal assembly in dendrimers 11 Enlightening structure and properties of dendrimers by fluorescence depolarization12 Single-molecule spectroscopy of dendrimer systems; 13 Degradable dendrimers: 14 Porphyrin dendrimers as biological oxygen sensors; 15 Peptide dendrimers as artificial proteins; 16 Phosphorus-containing dendritic architectures: synthesis and applications; Index; Color Plates Research on dendrimers has exploded in the last 15 years, moving Sommario/riassunto

from the establishment of synthetic methodologies, particularly in the

early years up to the end of nineties, towards sophisticated and wideranging applications. Dendrimers play an important role in many different areas, spanning from basic synthetic approaches to artificial photosynthesis, to medicine, to catalysis. The great potential of dendrimers is well-recognized by the hundreds of papers in the field and the increasing number of patents, and stimulated developments in other areas of knowledge, including new characterizati