

1. Record Nr.	UNINA9910815402003321
Titolo	Organic structure design : applications in optical and electronic devices // edited by Tahsin J. Chow
Pubbl/distr/stampa	Boca Raton, FL : , : CRC Press : , : Pan Stanford Publishing, , [2015] ©2015
ISBN	0-429-06893-X 981-4463-34-5
Descrizione fisica	1 online resource (533 p.)
Disciplina	660.109236
Soggetti	Electronic apparatus and appliances Molecular electronics Semiconductors - Surfaces
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.
Nota di contenuto	Front Cover; Contents; Preface; Chapter 1 - Theoretical Modeling for Electron Transfer in Organic Materials; Chapter 2 - Organic Structure Design and Applications in Solution-Processed Organic Micro- and Nanomaterial; Chapter 3 - Synthesis, Structure, and Electronic and Photophysical Properties of Donor-Acceptor Cyclophanes; Chapter 4 - Light- and Electricity-Gated Internal Rotation of Molecular Rotors: Toward Artificial Molecular Machines; Chapter 5 - Supramolecular Assemblies of Organogels Featuring p-Conjugated Framework with Long-Chain Dicarboxamides Chapter 6 - Quinoxaline-Based Polycyclic Molecules Having Defined Shapes: From Orthocyclophanes to Polyazaacenes Chapter 7 - Fluorogenic Sensors of Heavy Metal Ions Based on Calix[4]arenes Functionalized by 1,3-Dipolar Cycloaddition Reactions; Chapter 8 - Electron Transport Materials in Organic Light-Emitting Diodes: Design Considerations and Structural Diversity; Chapter 9 - Electrochemical Deposition of Carbazole and Triarylamine Derivatives and Their Polymeric Optoelectronic Applications; Chapter 10 - Solution-Processed Acenes and Their Applications on Field-Effect Transistor Chapter 11 - New Synthetic Route to Acenes Back Cover

Sommario/riassunto

The development of molecular electronics has become the mainstream of scientific research in recent decades. Applications include light-emitting diodes, solar cells, thin-film transistors, and sensors, among others. New-generation organic materials possess the virtues of softness, light weight, easy processing, design flexibility, and so on. This book focuses on the preparation of new functional organic materials. It includes a brief theoretical/kinetic discussion. The text lays special emphasis on the design of organic structures and the way they perform the designated functional properties.
