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| 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.
