1. Record Nr. UNINA9911020169203321

Autore Balzani Vincenzo <1936->

Titolo Molecular Devices and Machines: Concepts and Perspectives for the

Nanoworld

Pubbl/distr/stampa Hoboken,: Wiley, 2008

ISBN 9783527621682

3527621687

Edizione [2nd ed.]

Descrizione fisica 1 online resource (584 p.)

Altri autori (Persone) CrediA (Alberto)

VenturiM (Margherita)

Disciplina 620.5

Soggetti Molecular electronics

Nanotechnology Technology - General

Engineering & Applied Sciences

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Description based upon print version of record.

Nota di contenuto Molecular Devices and Machines; Contents; Preface to the Second

Edition; Glossary; List of Abbreviations; I General Concepts; 1 Introduction; 1.1 Devices and Machines at the Molecular Level; 1.2

Nanoscience and Nanotechnology; 1.3 Supramolecular

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Approach; 1.5 Bottom-Up (Small-Upward) Approach; 1.6 Bottom-up
Molecule-by-Molecule Approach; 1.7 Self-Organization and Covalent
Synthetic Design; 1.8 Energy and Signals; 2 Processing Energy and
Signals by Molecular and Supramolecular Systems; 2.1 Introduction; 2.2

Molecular Electronics

2.3 Molecular Photonics2.4 Molecular Chemionics; 2.5 Molecular Electrophotonics; 2.5.1 Solution Systems; 2.5.2 Solid State; 2.6 Molecular Electrochemionics; 2.7 Molecular Photoelectronics; 2.7.1 Photoinduced Electron Transfer in Homogeneous Systems; 2.7.2 Photoinduced Potential Generation in Heterogeneous Systems; 2.8 Molecular Photochemionics; 2.8.1 Proton Release or Uptake; 2.8.2 Metal Ion Release; 2.8.3 Anion Release; 2.8.4 Molecule Release; 2.8.5

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Sommario/riassunto

Inputs

5.2.3 Acid-Base Inputs

Targeted at a broad audience ranging from chemists and biochemists to physicists and engineers, this book covers advanced research while being written in an easily understandable language accessible to any interested researcher or graduate student. Following an introduction to the general concepts, the authors go on to discuss devices for processing electrons and electronic energy, memories, logic gates and related systems, and, finally, molecular-scale machines.

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