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Nota di contenuto	ORGANIC NANOMATERIALS; CONTENTS; PREFACE; CONTRIBUTORS; 1 A PROPOSED TAXONOMY AND CLASSIFICATION STRATEGY FOR WELL-DEFINED, SOFT-MATTER NANOSCALE BUILDING BLOCKS; 1.1 INTRODUCTION; 1.2 ADAPTATION OF LINNAEAN TAXONOMY PRINCIPLES TO A NEW NANO-CLASSIFICATION SCHEME; 1.2.1 Taxonomy of Biological Structures and Organisms; 1.2.2 Protein Taxonomies; 1.2.3 Virus Taxonomies; 1.3 HOW DOES NATURE TRANSFER STRUCTURAL INFORMATION FROM A LOWER HIERARCHICAL LEVEL TO HIGHER COMPLEXITY? 1.4 THE USE OF CLADOGRAMS FOR CLASSIFICATIONS OF WELL-DEFINED BIOLOGICAL (MICRON SCALE/MACROSCALE), ATOMIC (PICOSCALE), AND NANOSCALE BUILDING BLOCKS1.4.1 Taxonomy of Biological Entities; 1.4.2 Taxonomy of Atomic Elements; 1.4.3 In Quest of a Taxonomy for Nonbiological Nanoscale Structures and Assemblies; 1.5 HEURISTIC MAGIC NUMBER MIMICRY AT THE SUBATOMIC, ATOMIC, AND NANOSCALE LEVELS; 1.5.1 Heuristic Atom Mimicry of Dendrimers: Nano-Level Core-Shell Analogues of Atoms; 1.6 ELEMENT CATEGORIES AND THEIR HYBRIDIZATION INTO NANO-COMPOUNDS AND NANO-ASSEMBLIES 1.6.1 A Brief Overview of Nano-classifications (Taxonomies)1.7 A NANO-PERIODIC SYSTEM FOR DEFINING AND UNIFYING NANOSCIENCE;

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1.8 CHEMICAL BOND FORMATION/VALENCY AND STOICHIOMETRIC BINDING RATIOS WITH DENDRIMERS TO FORM NANO-COMPOUNDS;  
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2.2.3 Hole and Electron Transport

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Sommario/riassunto

"This book offers comprehensive and up-to-date coverage of functional organic nanomaterials. Chapters present the views of leading experts on how organic nanomaterials can be synthesized and prepared, analyzed and characterized, studied, organized at the nanoscale, and incorporated into devices for real-world applications. Due to the interdisciplinary nature of organic nanomaterials, the book appeals to those involved in chemistry, physics, materials science, polymer science, and (chemical and material) engineering. Topics include conducting hybrid materials, biomaterials, carbon nanotubes, photovoltaics, dye-sensitized solar cells (DSCs), lithographic techniques, bioassays, sensors, and nanomedicine"--

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