Functional Organic Materials. Syntheses, Strategies and Applications

Description: The impact of functional organic materials has increased dramatically over the last few years due to their applications in such numerous fields as electronic devices, optical materials and nanotechnology. Their application demands synthetic know–how and this is always the first step in designing functional materials for new products and applications in nanotechnology, among others.

This timely overview of the syntheses for functional pi–systems focuses on target molecules that have shown interesting properties as materials or models in physics, biology and chemistry. The unique concept allows readers to select the right synthetic strategy for success, making it invaluable for a number of industrial applications.

A "must have" for everyone working in this new and rapidly expanding field.

Thomas J. J. Müller received his PhD from the Ludwig–Maximilians University (LMU) in Munich, Germany, in 1992. After a postdoctoral stay at Stanford University in Palo Alto, USA, he moved to the Technical University of Darmstadt, Germany, and later returned to the LMU where he gained his lecturing qualification in 2000. In 2002 he became Professor for Organic Chemistry at the University of Heidelberg, Germany, and currently is a professor at the University of Düsseldorf, Germany. Professor Müller’s interests are the synthetic, methodological and physical chemical development of heterocyclic chemistry and its implications for medicinal chemistry, materials science and nanotechnology.

Uwe H. F. Bunz received his PhD from the LMU in Munich, Germany, in 1990. After a postdoctoral stay at the University of California in Berkeley, USA, he returned to Germany as a research associate at the Max–Planck–Institute for Polymer Science in Mainz, and gained his lecturing qualification from the University of Mainz in 1997. He became Professor of Chemistry at the University of South Carolina, USA, and is currently a professor at the Georgia Institute of Technology, Atlanta, USA, working on alkyne chemistry, polymer chemistry, chemistry of carbon rich materials, sugar and carbohydrate chemistry.

Contents:

PART I: 3–D–CARBORICH PI–SYSTEMS –

NANOTUBES AND SEGMENTS

Functionalization of Carbon Nanotubes

Cyclophenacene Cut Out of Fullerene

PART II: STRATEGIC ADVANCES IN CHROMOPHORE AND MATERIALS SYNTHESSES

Swivel Cruciforms

Design of pi–Conjugated Systems Using Organophosphorous Building Blocks

Diversity Oriented Synthesis of Chromophores by Combinatorial Strategies and Multi–component Reactions

High–yield Synthesis of Shape–persistent Phenylene–Ethynylene Macrocycles

Self–Assembly Strategies towards Multifunctional Materials

PART III: MOLECULAR MUSCLES, SWITCHES AND ELECTRONICS

Molecular Motors and Muscles

Diarylethene as a Photoswitching Unit of Intramolecular Magnetic Interaction

Thiol End–capped Molecules for Molecular Electronics: Synthetic Methods, Molecular Junctions, and
Structure–Property Relationships

Organic Nonlinear Optical Materials

PART IV: ELECTRONIC INTERACTION AND STRUCTURE

Photoinduced Electron Transfer Processes in Synthetically Modified DNA

Electron Transfer of pi–Functional Systems and Applications

Induced pi–Stacking in Acenes

Synthesis and Characterization of Novel Chiral Conjugated Materials

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