



**River Publishers**

# **River Publishers Book Catalogue**

Series in Polymer Science

River Publishers Series in Polymer Science

## **Advanced Polymeric Materials** **Synthesis and Applications**

**Editors:**

Didier Rouxel, Université de Lorraine, France

Sabu Thomas, Mahatma Gandhi University, India

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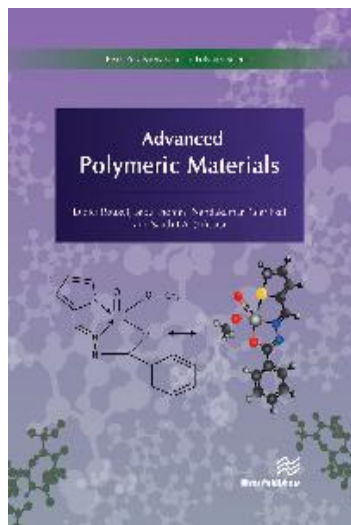
Sajith T.A., Mahatma Gandhi University, India

**ISBN:** 9788793609686

**e-ISBN:** 9788793609679

**Available From:** May 2018

**Price:** € 90.00



**Description:**

Recent advances in polymer research has led to the generation of high quality materials for various applications in day to day life. The synthesis of new functional monomers has shown strong potential in generating novel polymer materials, with improved properties.

*Advanced Polymeric Materials* includes fundamentals and numerous examples of polymer blend preparation and characterizations. Developments in blends, polymer nanocomposites and its various characterization techniques are highlighted in the book.

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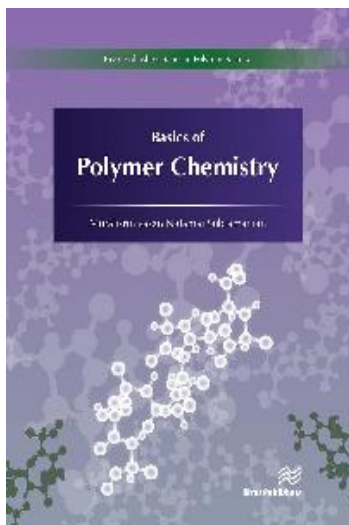
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River Publishers Series in Polymer Science

## Basics of Polymer Chemistry

**Author:** Muralisrinivasan Natamai Subramanian, Consultant, India

**ISBN:** 9788793519015

**e-ISBN:** 9788793519022

**Available From:** October 2017

**Price:** € 80.00

### Description:

*Basics of Polymer Chemistry* is of great interest to the chemistry audience. The basic properties of polymers, including diverse fundamental and applied aspects, are presented. This book constitutes a basis for understanding polymerization, and it presents a comprehensive overview of the scientific research of polymers. The chapters presented can be used as a reference for those interested in understanding the sustainable development in polymers.

*Basics of Polymer Chemistry* provides a balanced coverage of the key developments in this field, and highlights recent and emerging technical achievements. The topics covered present a comprehensive overview of the subject area and are therefore of interest to professors and students. The recent developments in polymerization using catalysts, homo and copolymerization are presented, and it contains current efforts in designing new polymer architectures. Improved property performance attributes of the polymers by controlling their molecular-structural characteristics such as molecular weight distribution, comonomer type content distribution, and branching level are also discussed.

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## Structural Analysis using Computational Chemistry

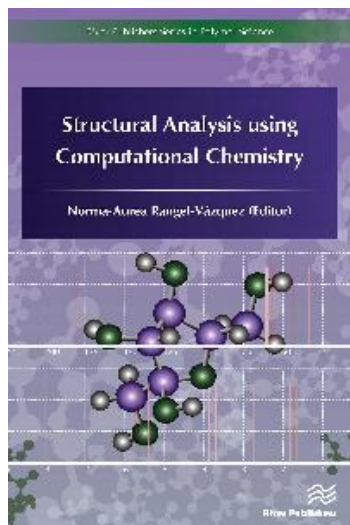
**Editor:** Norma Aurea Rangel-Vázquez, PCC, Aguascalientes, México

**ISBN:** 9788793379954

**e-ISBN:** 9788793379961

**Available From:** September 2016

**Price:** € 80.00



### Description:

Computational chemistry is a science that allows researchers to study, characterize and predict the structure and stability of chemical systems. In other words: studying energy differences between different states to explain spectroscopic properties and reaction mechanisms at the atomic level. This field is gaining in relevance and strength due to field applications from chemical engineering, electrical engineering, electronics, biomedicine, biology, materials science, to name but a few. *Structural Analysis using Computational Chemistry* arises from the need to present the progress of computational chemistry in various application areas.

Technical topics discussed in the book include:

- Quantum mechanics and structural molecular study (AM1)
- Application of quantum models in molecular analysis
- Molecular analysis of insulin through controlled adsorption in hydrogels based on chitosan
- Analysis and molecular characterization of organic materials for application in solar cells
- Determination of thermodynamic properties of ionic liquids through molecular simulation

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