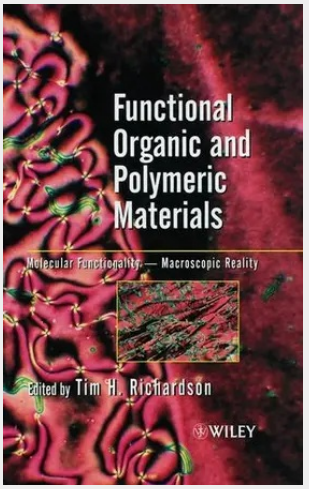
Richardson

Functional Organic Polymeric Materials



528,70 €
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Describing exciting new developments in the field of organic molecular materials which have transformed the use of materials in the modern world in the last 20 years or so, the focal point of 'Functional Organic and Polymeric Molecular Materials' is the concept of 'molecular functionality - macroscopic reality'. That is, the close relationships between the properties of isolated, discrete molecules and those of assembled arrays of molecules in thin films or crystals. Organic chemistry provides materials researchers with the wonderful opportunity to design bulk materials whose properties at the macroscopic level reflect closely the modelled or actual behaviour of individual molecules or small arrays of molecules. The iterative "design-test-design" approach to has led in recent years to major advances in such fields as liquid crystals, electroluminesent displays, sensors and organic conductors, to name but a few. Indeed, it is extremely difficult in this new millennium to escape the myriad applications of organic and polymeric materials; engineering plastics are everywhere, electronic displays grace almost every consumer electronic device, organic-based sensor are widespread and our world is marvellously colourful, thanks mostly to organic dyes, paints and inks. This book is aimed at molecular materials researchers who wish to broaden their knowledge of the discipline and those about to enter the field. Indeed, it is hoped that the latter group of scientists sense some of the excitement and fascination concerned with organic materials which is felt by the authors.

Durch neueste Entwicklungen auf dem Gebiet der molekularen organischen Werkstoffe haben sich die Einsatzfelder dieser Materialien innerhalb der letzten 20 Jahre grundlegend gewandelt. Dieser Band verknüpft in eindrucksvoller Weise die molekulare Funktionalität mit der makroskopischen Realität, also die Eigenschaften der isolierten Moleküle mit denen der Molekülverbände in dünnen Schichten und Kristallen. Ein praxisnaher Leitfaden moderner Werkstoffe! (02/00)

Functional Organic and Polymeric Materials Molecular Functionality - Macroscopic Reality Edited by Tim H. Richardson Department of Physics and Astronomy, University of Sheffield, UK Describing exciting new developments in the field of organic molecular materials which have transformed the use of materials in the modern world in the last 20 years or so, the focal point of Functional Organic and Polymeric Materials is the concept of 'molecular functionality - macroscopic reality'. That is, the close relationships between the properties of isolated,discrete molecules and those of assembled arrays of molecules in thin films or crystals. Organic chemistry provides materials researchers with the wonderful opportunity to design bulk materials whose properties at the macroscopic level reflect closely the modelled or actual behaviour of individual molecules or small arrays of molecules. The iterative 'design-test-design' approach has led in recent years to major advances in such fields as liquid crystals, electroluminesent displays, sensors and organic conductors, to name but a few. Indeed, it is extremely difficult in this new millenium to escape the myriad applications of organic and polymeric materials: engineering plastics are everywhere, electronic displays grace almost every consumer electronic device, organic-based sensors are widespread, and our world is marvellously colourful, thanks mostly to organic dyes, paints and inks. The book is aimed at molecular materials researchers who wish to broaden their knowledge of the discipline and those about to enter the field. Indeed it is hoped that the latter group of scientists sense some of the excitement and fascination concerned with organic materials which is felt by the authors.

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