

grown over the past decade and is clear from the number of publications in top journals, the abundant symposia at international meetings, and the release of several books on the subject. The current resurgence reflects synthetic breakthroughs made around the world which have allowed a variety of well-characterized polymers to be accessed, and also the growth in interest within the physical and materials science community, which has allowed detailed studies of properties and potential applications. This book by Vadapalli Chandrasekhar provides a very useful and timely survey of the broad area with ample discussion of the recent developments from the last decade.

Chapter 1 provides an overview of the area of inorganic polymers and focuses on synthetic strategies. Chapter 2 provides a valuable survey of organic polymers covering both synthetic routes, including the more recent methods such as atom transfer radical polymerization, and the basic properties of polymers. Chapters 3 and 4 cover the area of polyphosphazenes. In addition to the traditional ring-opening polymerization route, chain growth polycondensation methods are also surveyed as are polymers containing cyclophosphazene groups. Chapter 5 describes other inorganic polymers containing elements such as phosphorus, boron, and sulfur. Very recent advances using polycondensation methods and addition polymerization (of phosphalkenes) are included. Chapter 6 covers the well-studied polysiloxanes and Chapter 7 discusses polysilanes. Chapter 8 surveys organometallic polymers and covers polystannanes, ferrocene polymers and rigid rod polyynes.

Overall this is an excellent book which provides an extremely useful survey of synthetic methods and the chemistry used to make the materials. One omission involves the area of coordination or metallosupramolecular materials, which has experienced major advances over the past decade, but is hardly mentioned. Another is the growing area of supramolecular materials formed by the self-assembly of inorganic polymers, especially block copolymers. In addition, the discussion of materials science and applications of the polymers is not accomplished with the same depth

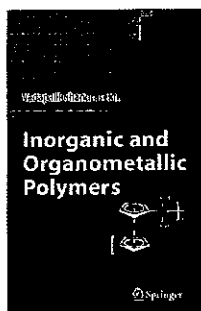
as the synthetic chemistry aspects. Nevertheless, in most cases succinct and useful surveys are given with key references.

I can certainly recommend this book to any practitioner in the field, and also to students and industrial scientists interested in an overview of the substantial recent progress that has been made in the area, especially on the synthetic side. The author clearly demonstrates an excellent knowledge of the field and the recent literature. The work is very well-written and is generally error-free with clear and carefully created structures and, in my view, represents a very valuable contribution. A subject index is also included.

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Inorganic and Organometallic Polymers



By Vadapalli Chandrasekhar. Springer Verlag, Heidelberg 2005. 338 pp., hardcover
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The area of inorganic and organometallic polymers has attracted regular bursts of attention over the past 50 years as a result of the enticing possibility of accessing materials with properties which complement those available using organic macromolecules. The current surge of interest has continued and

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