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VI. Hyperbranched and Crosslinked Polymers VII. Stars and Dendrimers; VIII. Summary; IX. References; 3. Polymers Containing 4-, 5-, and 6-Membered Rings p-Coordinated to Metallic Moieties; I. Introduction; II. Polymers Containing Arene Complexes; A. Pendent to the Backbone; B. Sidechain; C. Supramolecular Assemblies; D. Dendrimers and Stars; III. Polymers Containing Complexed 5-Membered Rings; A. Cyclopentadienylmetal Carbonyl Complexes; B. Complexation of Silole Rings; C. Dendrimers; IV. Polymers Containing Cyclobutadiene Complexes; V. Summary; VI. References
4. s-Bonded Metals and Metal-Metal Bonds in the Polymer Framework I. Introduction; II. Metal s Bonds; A. Metal-Oxygen, Metal-Sulfur, and Metal-Nitrogen Bonds; B. Metal-Aryl Bonds; C. Metallacyclopentadienes; D. Metal Acetylides; III. Metal-Metal Bonds; IV. Stars and Dendrimers; V. Summary; VI. References; 5. Metal Coordination Polymers; I. Introduction; II. Schiff Base Polymers; III. Porphyrins; IV. Phthalocyanines; V. Pyridine and Related Systems; A. Bi- and Terpyridine-Based Materials; B. Catenanes, Rotaxanes, and Calixarenes; C. Benzimidazoles; D. Dendrimers and Stars; VI. Summary VII. References
6. Silicon-, Germanium-, Tin-, and Lead-Containing Polymers; I. Introduction; II. Silicon; A. Polysilylenes (Polysilanes); B. Polycarbosilanes; C. Polysilazanes; D. Polysiloxanes; E. Polysilsesquioxanes; III. Germanium; IV. Tin; V. Lead; VI. Summary; VII. References; Subject Index; Metals Index

Sommario/riassunto

Metal- and metalloid-containing macromolecules are defined as large molecules (i.e., polymers, DNA, proteins) that contain a metal or metalloid group affiliated with the molecule. The first volume in this series consists of a number of reviews of the field, to give the reader a background to build upon. Compiled by an all-star cast of macromolecular experts, this guide: Provides useful descriptions of applications for the reader to apply in his/her research into materials, polymers, and medicine/drug development. Covers non-linear optical materials, speciality magnetic materials, liq
