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IV. Metal-Containing Block Copolymers: Formation of Self-Assembled, Supramolecular Materials and Nanoscopic Ceramic PatternsV. Summary; VI. Acknowledgments; VII. References; 4. Synthesis and Solution Self-Assembly of Polyferrocene-Based AB Diblock and ABC Triblock Copolymers; I. Introduction; II. Results and Discussion; A. Synthesis and Aqueous Micellization of PFS-PDMAEMA; B. Synthesis and Micellization of PFP-PFS-PDMS; III. Summary and Outlook; IV. References
5. Synthesis and Self-Assembly of Polyisoprene-block-Polyferrocenyldimethylsilane Diblock Copolymers: Fabrication of Ceramic Nanolines on Semiconducting SubstratesI. Introduction; II. Experimental; III. Results and Discussion; A. Block Copolymer Synthesis; B. PI-b-PFDMS Micelles; C. Fabrication of Ceramic Nanolines; IV. Conclusions; V. Acknowledgments; VI. References; 6. Water-Soluble Polyferrocenylsilanes for Supramolecular Assemblies by Layer-by-Layer Deposition; I. Introduction; II. Synthesis of Polyferrocenylsilane Polyions; III. Polymer Characterization; IV. Multilayer Characterization
V. Patterned Polyferrocenylsilane Multilayer Thin FilmsVI. Summary; VII. Experimentation; VIII. Acknowledgment; IX. References; 7. Metal-Containing Polymers for High-Performance Resist Applications; I. Introduction; II. Organic Resists; A. Chemical Amplification; III. Inorganic Resists; IV. Organic-Inorganic Composite Resists; V. Organometallic Polymers; A. Polyferrocenyldimethylsilane as Reactive Ion Etch Barrier; B. Printing of Organometallic Polymers by Soft Lithography; 1. Directed Dewetting; VI. Organic-Organometallic Block Copolymers
A. Structure Formation via Block Copolymer Self-Assembly

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. Compiled by an all-star cast of macromolecular experts, Macromolecules Containing Metal and Metal-Like Elements, Volume 2, Organoiron-Containing Polymers: 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, liquid crystals, anticance