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2.1 Introduction 2.2 All-Conjugated, Cationic Polyfluorene-b-Polythiophene Diblock Copolymers; 2.2.1 Synthesis; 2.2.2 Optical Properties; 2.2.3 Aggregation Behavior of Cationic PF-b-PT Diblock Copolymers; 2.2.4 Atomic Force Microscopy; 2.2.4.1 Confocal Microscopy; 2.2.4.2 Complexation with Anionic Surfactants; 2.2.4.3 Complexation with DNA; 2.2.4.4 Incorporation of PF2/6-b-P3TMAHT into Organic Electronic Devices; 2.3 All-Conjugated Cationic Polyfluorene-b-Polyfluorene Diblock Copolymers; 2.3.1 Synthesis; 2.3.2 Optical Properties; 2.3.3 Atomic Force Microscopy; 2.4 Conclusion; Acknowledgments

References 3 Ionically Functionalized Polyacetylenes; 3.1 Introduction; 3.2 Polymers from Ionically Functionalized Cyclooctatetraenes; 3.2.1 Synthesis and General Properties; 3.2.2 Electrochemistry; 3.2.2.1 Electrochemical Doping; 3.2.2.2 The Donnan Potential; 3.2.2.3 Internal Compensation; 3.2.3 Polyelectrolyte-Mediated and Self-Limiting Electrochemistry; 3.2.4 Junctions; 3.2.4.1 In situ Electrochemical Manipulation and the Tunable Diode; 3.2.4.2 Internally Compensated p-n Junctions; 3.2.4.3 Undoped Ionic Junctions; 3.3 Polymers from Ionically Functionalized Acetylenes

3.3.1 General Properties and Synthetic Approaches 3.3.2 Polymer Chain Structure; 3.3.3 Poly(IA)s with Extended Conjugations; 3.4 Summary; Acknowledgment; References; 4 Aggregation Properties of Conjugated Polyelectrolytes; 4.1 Introduction; 4.2 Aggregation: from Disordered Clusters to Structured Vesicles; 4.3 Experimental Studies on Aggregation; 4.3.1 What Scattering Techniques Tell Us; 4.3.2 Microscopy Studies in Solution and Films; 4.3.3 Spectroscopic and Photophysical Studies; 4.3.4 Aggregation as Seen by Electrical Conductivity and NMR Spectroscopy; 4.3.5 Molecular Dynamics Simulations

4.4 Conjugated Polyelectrolyte Aggregation in Solution

Sommario/riassunto

This is the first monograph to specifically focus on fundamentals and applications of polyelectrolytes, a class of molecules that gained substantial interest due to their unique combination of properties. Combining both features of organic semiconductors and polyelectrolytes, they offer a broad field for fundamental research as well as applications to analytical chemistry, optical imaging, and optoelectronic devices. The initial chapters introduce readers to the synthesis, optical and electrical properties of various conjugated polyelectrolytes. This is followed by chapters on the applica
