

Peptide Hybrid Polymers / Springer, 2006 / Harm-Anton Klok, Helmut Schlaad / 9783540325680 / 160 pages / 2006

Polymer-peptide hybrid architectures have recently gained much interest in materials science. The ability to combine the structural and functional components of natural polymers with the synthetic polymer backbone opens up new possibilities for the design of functional materials. This volume provides an overview of the state-of-the-art in this emerging field. The editors and authors provide an overview of the state-of-the-art in a burgeoning area that merges the controlled activity of one of Nature's main classes of polymers—proteins and peptides—with the more traditional chemistry of synthetic polymers. This volume nicely introduces the researcher and student to the area of peptide polymer hybrids and outlines the areas of synthesis. Of particular interest are peptide hybrid polymers. Combining peptide and synthetic polymer segments into a single macromolecule offers interesting possibilities to synergize the properties of the individual components and to compatibilize bio- and synthetic systems. This volume of *Advances in Polymer Science* is an attempt to provide an overview of the state of the art in the area of peptide hybrid polymers. The 17 articles in this volume cover a broad range of topics, from chemical and biological synthesis, to solution and solid-state self-assembly, to medical applications.