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2.2.5 PEG Conjugates of Oligonucleotides, Aptamers, and siRNAs2.2.6 PEG-drug Conjugates (PEG prodrugs); 2.2.7 PEGylation of Viruses; 2.3 LIMITATIONS OF PEG CONJUGATES; 2.4 POLYGLYCEROL-BASED CONJUGATES; 2.4.1 HPG-drug Conjugates; 2.4.2 HPG-peptide and Protein Conjugates; 2.4.3 HPG Glycoconjugates; 2.4.4 HPG-Red Blood Cell Conjugates for Antigen Protection; 2.5 CONCLUSIONS; ACKNOWLEDGMENTS; REFERENCES; 3 SYNTHETIC POLYMER BIOCONJUGATE SYSTEMS; 3.1 INTRODUCTION; 3.2 PEPTIDE OR PROTEIN BIOCONJUGATION TECHNIQUES; 3.2.1 Conjugation with Amino Acid; 3.2.2 Conjugation with Peptide Chain
3.2.3 Conjugation with Proteins3.3 CARBOHYDRATE BIOCONJUGATION TECHNIQUES; 3.4 CONJUGATION WITH NUCLEIC ACID; 3.5 CONJUGATION WITH DRUGS; 3.6 CONJUGATION WITH CONTRAST AGENTS; 3.6.1 Polymers for Magnetic Resonance Imaging; 3.6.2 Polymers for Optical Imaging; 3.6.3 Polymers for Nuclear imaging; 3.7 CONCLUSION AND PERSPECTIVE; REFERENCES; 4 NATURAL POLYMER BIOCONJUGATE SYSTEMS; 4.1 INTRODUCTION; 4.2 NATURAL POLYMER SYSTEMS; 4.2.1 Protein-origin Polymer Bioconjugates; 4.2.2 Polysaccharidic Polymer Bioconjugates; 4.3 CONCLUSION AND FUTURE DIRECTIONS; ACKNOWLEDGMENT; REFERENCES
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5.4 DENDRIMER CONJUGATES WITH IMAGING AGENTS

Sommario/riassunto

This book describes the chemistries involved in bioconjugation followed by an extensive review of all types of bioconjugates (polymers, dendrimers, nanoparticles, carbon nanotubes) reported in the literature for different bio-related applications. A section is devoted to the physico-chemical and biochemical properties of bioconjugates and implications in their uses. Finally, the book also provides a comprehensive account about the significance of bioconjugation - coverage that is lacking in many of the current resources available.