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Nota di contenuto	SYNTHETIC MULTIVALENT MOLECULES; CONTENTS; Preface; Notes for Organization and Classification; Abbreviations; 1 Introduction; 1.1 Nomenclature and Definitions; 1.1.1 Valency; 1.1.2 Linkers; 1.1.3 Scaffolds; 1.1.4 Ligand Density; 1.1.5 Homo- and Heterovalent Molecules; 1.2 Mechanistic Aspects of Multivalent Interaction; 1.2.1 Affinity Constant and Avidity; 1.2.2 Thermodynamics; 1.2.3 Kinetics; 1.2.4 Steric Effects; 1.3 Biological Roles of Multivalent Ligands; 2 Multivalent Molecules Applied to Viral Targets; 2.1 Influenza Virus; 2.1.1 Hemagglutinin; 2.1.1.1 Divalent Sialic Acid 2.1.1.2 Tetravalent Sialoside2.1.1.3 Dendrimers Presenting Sialosides; 2.1.1.4 Sialic Acid Displayed in Liposomes; 2.1.1.5 Polymerized Liposome Presenting Sialic Acid; 2.1.1.6 Sialic Acid in Langmuir-Blodget Monolayers; 2.1.1.7 Sialic Acid Presented on Biopolymer Surfaces; 2.1.1.8 Poly(acrylamide) Presenting Sialosides; 2.1.1.9 Poly (acrylic acid) Presenting Sialosides; 2.1.1.10 Poly(acrylamide) Presenting C-Sialosides; 2.1.1.11 Postmodification of Activated Polymers; 2.1.1.12

Modes of Action of Polymeric Sialosides; 2.1.1.13 OPTCOL Assay; 2.1.1.14 ter-Poly(acrylic acid) Presenting Sialosides
2.1.1.15 Poly(glutamic acid) Presenting Lysogangliosides2.1.1.16 Poly (glutamic acid) Bearing Sialic Acid-Containing Trisaccharides; 2.1.1.17 Poly(acrylamide) Bearing Sialic Acid Linked at the C(4) Position; 2.1.1.18 Poly(acrylamide) Tethering 9-O-Acetylsialosides; 2.1.1.19 Neoglycoprotein Displaying Sialic Acids; 2.1.1.20 Natural b-Inhibitors; 2.1.2 Neuraminidase; 2.1.2.1 Poly(glutamic acid) Presenting NA Inhibitors; 2.2 Human Immunodeficiency Virus; 2.2.1 HIV-1 Protease; 2.2.1.1 Divalent Terminal Peptides; 2.2.2 HIV-1 Reverse Transcriptase; 2.2.2.1 Heterodimers Composed of NRTI and NNRTI
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3.1.1.3 Di- and Trivalent Vancomycin

Sommario/riassunto

This book provides basic principles of multivalent interactions found in biological systems as well as an up-to-date and thorough coverage in design concepts, syntheses, and biological activities of multivalent molecules.* Contains practical examples of synthetic multivalent molecules in chemistry, biology, and medicine* Can be used as both a textbook for students and a reference book for libraries and professionals* Includes detailed case studies* Fills a void in current literature through its devotion solely to multivalent molecules