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Nota di contenuto	Bioinorganic Medicinal Chemistry; Contents; List of Contributors; 1: Medicinal Inorganic Chemistry: State of the Art, New Trends, and a Vision of the Future: Nicola J. Farrer and Peter J. Sadler; 1.1: Introduction; 1.1.1: Metals in the Body: Essential Elements and Diseases of Metabolism; 1.1.2: Metals as Therapeutic Agents; 1.2: Antimicrobial Agents; 1.3: Antiviral Agents; 1.4: Systemic and Metabolic Diseases Including Inflammation; 1.4.1: Diabetes and Obesity; 1.4.2: Metal Homeostasis and Related Diseases; 1.5: Metal Chelating Agents; 1.6: Antiarthritic Drugs and Inflammation 1.7: Bipolar Disorder1.8: Anticancer Agents; 1.8.1: PtII Cytotoxic Agents; 1.8.2: PtIV Prodrugs; 1.8.3: Photoactivatable PtIV Complexes; 1.8.4: Ruthenium; 1.8.4.1: Interaction with Plasma Proteins; 1.8.4.2: Ruthenium Arenes; 1.8.5: Osmium; 1.8.6: Titanium; 1.8.7: Gold; 1.8.8: Tin; 1.8.9: Gallium; 1.8.10: Arsenic; 1.8.11: Copper; 1.8.12: Zinc; 1.8.13: Bismuth; 1.8.14: Molybdenum; 1.8.15: Photosensitizers: Porphyrins; 1.9: Small Molecule Delivery and Control; 1.9.1: Nitric Oxide (NO); 1.9.2: Carbon Monoxide (CO); 1.10: Diagnostic Agents;

1.11: Veterinary Medicinal Inorganic Chemistry
1.12: Conclusions and Vision2: Targeting Strategies for Metal-Based Therapeutics: Julia F. Norman and Trevor W. Hambley; 2.1: Introduction; 2.2: Physiological Targeting; 2.2.1: Antitumor Drugs Targeting Tumor Hypoxia; 2.2.2: Antitumor Drugs Targeting Vascular Structure; 2.2.3: Antitumor Drugs Targeting Tumor pH; 2.2.4: Light Activated Prodrugs; 2.3: Molecular Targeting; 2.3.1: Protein and Peptide Targeting; 2.3.1.1: Protein Receptor Binding; 2.3.2: Peptide Tethering; 2.3.2.1: Directing Effects; 2.3.3: Selective Activation; 2.3.4: DNA Targeting; 2.3.4.1: Duplex DNA Sequence Selectivity
2.3.4.2: Telomeric Targeting2.4: Immunological Targeting; 2.4.1: Antigen Targeting; 2.4.2: Antibody Tethering; 2.5: Concluding Remarks; 3: Current Status and Mechanism of Action of Platinum-Based Anticancer Drugs: Shanta Dhar and Stephen J. Lippard; 3.1: Introduction; 3.1.1: Platinum Chemotherapy and Cancer; 3.1.2: Palette of Current Platinum Chemotherapeutic Drugs; 3.1.3: Early History of Cisplatin and Approved Platinum Drugs for the Clinic; 3.2: Mechanism of Action of Cisplatin; 3.2.1: Cisplatin Accumulation; 3.2.2: Cisplatin Activation; 3.2.2.1: Binding to DNA Targets
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3.4.3: Gold Nanoparticles as Delivery Vehicles for Platinum Compounds

Sommario/riassunto

This book gives a comprehensive overview about medicinal inorganic chemistry. Topics like targeting strategies, mechanism of action, Pt-based antitumor drugs, radiopharmaceuticals are covered in detail and offer the reader an in-depth overview about this important topic.