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7. Polymeric Platinum-Containing Drugs in the Treatment of Cancer I. Introduction; II. Basic Mechanisms of Pt(II) Complex Formation; III. Nomenclature; IV. Currently Approved Platinum-Containing Compounds; V. Properties of Cisplatin; VI. Structure-Activity Relationships; VII. Polymer-Drug Conjugation Strategy and Possible Benefits; A. Polymers as Carriers; B. Polymers as Drugs; C. General; VIII. Mainchain-Incorporated cis-Diamine-Coordinated Platinum; A. Simple Amine Derivatives; B. Amino Acid Derivatives; C. Other Nitrogen-Platinum Products; D. Solution Stability; E. Thermal Stability F. Antiviral Activity

Sommario/riassunto

Metal and metalloid-containing compounds exhibit a wide range of biological and biocidal activities, some of which have been employed in medicines and drugs. Polymers containing metal or metalloid functions become a natural extension of this effort; just as organic compound drugs have been chemically bound to polymers or physically imbibed into polymer matrices in order to provide a variety of useful advantages, the same opportunities exist for using metal and metalloid species. This volume will cover important biomedical applications of organometallic compounds, including metal-labeled DNA on