Record Nr. UNINA9910298584603321 Autore Ferraz de Paiva Raphael Enoque **Titolo** Gold(I,III) Complexes Designed for Selective Targeting and Inhibition of Zinc Finger Proteins [[electronic resource] /] / by Raphael Enoque Ferraz de Paiva Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 **ISBN** 3-030-00853-3 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (184 pages) Collana Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053 Disciplina 571.845 Soggetti Inorganic chemistry Organometallic chemistry **Proteins** Mass spectrometry Bioorganic chemistry **Immunology** Inorganic Chemistry Organometallic Chemistry **Protein-Ligand Interactions** Mass Spectrometry Bioorganic Chemistry Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Au(I)-phosphine series design -- Probing the Protein: Ion Mobility Spectrometry -- Probing Gold: X-ray Absorption Spectroscopy --Probing Cells: Cytotoxicity Evaluation -- Au(III) series with k2C,N and k2N,N' ligands -- "Dual Probe" X-ray Absorption Spectroscopy. Sommario/riassunto This book examines Au (I, III) complexes that selectively attack and inhibit zinc finger proteins (ZnFs) for potential therapeutic use. The author explores gold(I)-phosphine, gold(III) complexes with N^N and C^N donors as inhibitors of the HIV-1 nucleocapsid protein (NCp7), in

comparison to the human transcription factor Sp1. To determine the coordination sphere of the gold adducts formed by interaction with

ZnFs, two innovative approaches are used, based on Travelling-Wave lon Mobility coupled with Mass Spectrometry (TWIM-MS), and X-ray Absorption Spectroscopy. Both approaches are proven to yield valuable structural information regarding the coordination sphere of gold in the adducts. In addition, the organometallic compound [Au (bnpy)Cl2] is evaluated. The system is shown to be capable of inhibiting ZnFs by means of C–S coupling.