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Soggetti	Inorganic chemistry Organometallic chemistry Proteins Mass spectrometry Bioorganic chemistry Immunology Inorganic Chemistry Organometallic Chemistry Protein-Ligand Interactions Mass Spectrometry Bioorganic Chemistry
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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 k <sup>2</sup> C,N and k <sup>2</sup> N,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 <sup>^</sup> N and C <sup>^</sup> 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

Ion 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  $[\text{Au}(\text{bnpy})\text{Cl}_2]$  is evaluated. The system is shown to be capable of inhibiting ZnFs by means of C–S coupling.

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