1. Record Nr. UNINA9910987785903321

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Titolo	Electronic Structures and Bonding Interaction of Structurally Defined Gold/Silver Superatoms : Probed by Anion Photoelectron Spectroscopy / / by Shun Ito
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	9789819628926 981962892X
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (XIII, 112 p. 86 illus., 78 illus. in color.)
Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5061
Disciplina	541.2
Soggetti	Nanochemistry Spectrum analysis Density functionals Nanoparticles Spectroscopy Density Functional Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1.Introduction -- Chapter 2.Experimental Setup of Anion Photoelectron Spectroscopy -- Chapter 3.Effect of Heterometal Doping on Electron Affinities of Eight Electron Superatoms -- Chapter 4.Effect of Ligand Substitution on Electron Affinities of Eight Electron Superatoms -- Chapter 5.Bonding Interaction in Homonuclear Superatomic Molecules -- Chapter 6.Bonding Interaction in Heteronuclear Superatomic Molecules -- Chapter 7.Summary and prospects.
Sommario/riassunto	This book focuses on ligand-protected gold clusters featuring their atomically precise compositions and unambiguous structures. They mimic electronic shell structures of atoms and are called structurally defined superatoms. The book describes the design principle of superatomic electronic structures and the bonding theory of superatoms as revealed by gas-phase anion photoelectron spectroscopy, which is conducted by using a state-of-the-art home-

built apparatus and sheds light on fundamental electronic structures such as density of states and electron affinities otherwise elusive. This study revealed that the energy level of superatomic orbitals can be tuned coarsely by the heterometal doping and finely by the stepwise ligand exchange, respectively. The bonding theory of superatoms was also developed by anion photoelectron spectroscopy of homonuclear and heteronuclear superatoms. The comprehensive review of superatoms and detailed explanation of the apparatus were described in addition to individual studies. This book provides design principles of structurally defined superatoms and stimulates future research on the chemical and physical properties of superatoms.