



The Chemical Bond -Fundamental Aspects of Chemical Bonding

By Frenking, Gernot / Shaik, Sason S.

Condition: New. Publisher/Verlag: Wiley-VCH | The way we envision a chemical bond has been revolutionized by advances in theory over the past few years. This book provides an overview of the approaches to modeling bonds, including molecular-orbital based, valence-bond based, ELF, AIM and density-functional based methods. | This is the perfect complement to "Chemical Bonding - Across the Periodic Table" by the same editors, who are two of the top scientists working on this topic, each with extensive experience and important connections within the community. The resulting book is a unique overview of the different approaches used for describing a chemical bond, including molecular-orbital based, valence-bond based, ELF, AIM and density-functional based methods. It takes into account the many developments that have taken place in the field over the past few decades due to the rapid advances in quantum chemical models and faster computers. | PrefaceTHE PYHSICAL ORIGIN OF COVALENT BONDINGThe Quest for a Physical Model of Covalent BondingRigorous Basis for Conceptual ReasoningAtoms in Molecules The One-Electron Basis of Covalent Binding: H2+The Effect of Electronic Interaction in the Covalent Electron Pair Bond: H2Covalent Bonding in Molecules with More than Two Electrons: B2, C2, N2, O2, and F2ConclusionsBRIDGING CULTURESIntroductionA Short History of the...



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Reviews

Extensive information for book fans. It is writter in basic words and never hard to understand. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- Otis Wisoky

This publication is great. It is full of wisdom and knowledge You will not really feel monotony at at any time of the time (that's what catalogs are for relating to when you ask me).

-- Dr. Everett Dicki DDS