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Titolo	Bonding in Electron-Rich Molecules : Qualitative Valence-Bond Approach via Increased-Valence Structures / / by Richard D. Harcourt
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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	From the Contents: Atomic Orbitals, Electron Spin, Linear Combinations -- Pauling ‘3-Electron Bonds’, 4-Electron 3-Centre Bonding, and the Need for an ‘Increased Valence’ Theory -- Wave-Functions and Valence-Bond Structures for 1-Electron Bonds, Electron-Pair Bonds, Pauling ‘3-Electron Bonds’ and ‘No Bonds’ -- Valence-Bond Structures for Some Diatomic Molecules.
Sommario/riassunto	This second edition was updated to include some of the recent developments, such as “increased-valence” structures for 3-electron-3-centre bonding, benzene, electron conduction and reaction mechanisms, spiral chain O4 polymers and recoupled-pair bonding. The author provides qualitative molecular orbital and valence-bond descriptions of the electronic structures for primarily electron-rich molecules, with strong emphasis given to the valence-bond approach that uses “increased-valence” structures. He describes how “long-bond” Lewis structures as well as standard Lewis structures are incorporated into “increased-valence” structures for electron-rich

molecules. “Increased-valence” structures involve more electrons in bonding than do their component Lewis structures, and are used to provide interpretations for molecular electronic structure, bond properties and reactivities. Attention is also given to Pauling “3-electron bonds”, which are usually diatomic components of “increased-valence” structures for electron-rich molecules.