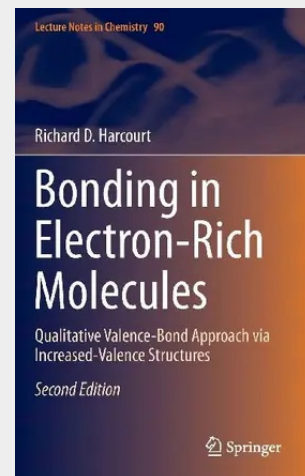


Bonding in Electron-Rich Molecules

Qualitative Valence-Bond Approach via Increased-Valence Structures

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 O 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.

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.



106,99 €

99,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783319166759

Medium: Buch

ISBN: 978-3-319-16675-9

Verlag: Springer

Erscheinungstermin: 10.11.2015

Sprache(n): Englisch

Auflage: 2. Auflage 2016

Serie: Lecture Notes in Chemistry

Produktform: Gebunden

Gewicht: 6387 g

Seiten: 326

Format (B x H): 160 x 241 mm

