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| Altri autori (Persone) | AunerNorbert<br>WeisJohann |
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| Nota di contenuto | Organosilicon Chemistry From Molecules to Materials; Contents; Tetravalent Organosilicon Compounds: Chemistry and Structure; Introduction; Structures of Small Silicon Containing Compounds - Why and How?; Sterically Overcrowded Organosilicon Compounds and their Properties; Synthesis of Functionally Substituted Oligosilanes Based on Silyltriflate Derivatives; Electroreductive Formation of Di- and Polysilanes; Linear Tetrasilanes with Internal Substituents: Oligosilanes with Optical Activity; A New Way to Si-Ge and Si-Sn Bonds: Hexachlorodisilane Cleavage of Organometal Phosphanes 29Si29Si-Coupling Constants of Bromo- and Iododisilanes and -trisilanes XnSi2H6-n and XnSi3H8-n (X = Br, I)Calculation of the 29 Si NMR Chemical Shifts in Molecules with SIN, SiCl, and SiSi Bonds; Reactivity of Very Electron-Rich Organosilyl Amines; Lithiated Aminofluorosilanes as Precursors for Monomeric and Dimeric Iminosilanes; Fluorofunctional Silylamines and -Hydrazines Precursors for (Si-N) Ring Systems; New Approaches to (Fluoromethyl)silanes; Homo- and heterocyclic Si-O-Systems . Rings and Cages Silaheterocycles from Intramolecular Reactions of Silicon-functionalized |

Diazoacetic EstersSynthesis and Reaction Behavior of Organoalkoxysilylphenols; N-Silylation: New Possibilities for Long-known Amines; On the Acid-catalyzed Reaction of Siloxanes with Alcohols; On the Reactivity of Chlorosiloxanes; Chlorosilanols - more stable than you think - shown with 29Si NMR; Diorganosilyl-bis(O-alkylphosphonates); Subvalent and Unsaturated Organosilicon Compounds: Formation and Reactivity; Introduction; Basic Principles of the Theory of Bonding in Silicon Compounds
Expectations from an Unusual Compound: The Chemistry of DecamethylsilicoceneCp*2Si(CO) and CP*2Si(N2): Complexes of Decamethylsilicocene; Silicon and Phosphinomethanides: A Novel Entry to Hypervalent and Low Valent Organosilicon Chemistry; Neopentylsilenes: Laboratory Curiosities or Useful Building Blocks for the Synthesis of Silaheterocycles ?; Synthesis and Thermolysis Reactions of Si-functionalized 2-Silaazetidines; Reactions of Silaethenes in the Gas Phase and in Solution; The Reaction of Vinylsilanes with Lithium Metal; Small Silicon Ring Compounds: Formation and Reactions
Matrix Photolysis of Simple AzidosilanesLow-coordinated Si-Compounds: Gas Phase Reactions with Heterosubstituted Silylenes; Unusual Coordination in Phosphorus-Silicon Compounds; Unsaturated Silicon Compounds: Matrix IR Investigations and Quantum Chemical Calculations; Hypervalent Organosilicon Compounds: Formation, Structure and Chemistry; Introduction; Reactivity of Penta- and Hexacoordinated Silicon Species; Compounds with High Coordination Numbers at Silicon: Models for the Investigation of the Nucleophilic Substitution Reaction at Silicon Centers
Organosilicon Metal Compounds: Coordination Chemistry and Catalysis

Sommario/riassunto

Do you need to know what's new in organosilicon chemistry? This book provides in-depth coverage of the latest developments in this interdisciplinary and fast-evolving field:- selectivity and reactivity of organosilicon compounds - new synthetic applications- structure and bonding- applications in materials and polymer scienceWritten by leading experts, this book is a well-referenced and critical overview of modern silicon chemistry.'I recommend this book to the student and the practitioner in this new, very different, and very exciting field'. Eugene G.