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Altri autori (Persone)	AunerNorbert 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 Esters  
 Synthesis 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  $^{29}\text{Si}$  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  
 Decamethylsilicocene  $\text{Cp}^*\text{2Si}(\text{CO})$  and  $\text{Cp}^*\text{2Si}(\text{N}_2)$ : 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-Silazetidines; 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 Azidosilanes  
 Low-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

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#### 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 science  
 Written 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.

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