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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 ²⁹ Si ²⁹ Si-Coupling Constants of Bromo- and Iododisilanes and -trisilanes X _n Si ₂ H _{6-n} and X _n Si ₃ H _{8-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}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 $\text{Cp}^*2\text{Si}(\text{CO})$ and $\text{Cp}^*2\text{Si}(\text{N}_2)$: 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-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 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

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.
