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Alan R. Bassindale and Peter G. Taylor -- [pt. 2.] Activating and directive effects of silicon / Alan R. Bassindale and Peter G. Taylor -- The photochemistry of organosilicon compounds / A.G. Brook -- Trivalent silyl ions / Joseph B. Lambert and W.J. Schulz -- Multiple bonds to silicon / Gerhard Raabe and Josef Michl -- Bioorganosilicon chemistry / Reinhold Tacke and Haryanto Linoh -- Polysilanes / Robert West -- Hypervalent silicon compounds / Robert J.P. Corriu and J. Colin Young -- Siloxane polymers and copolymers / T.C. Kendrick, B. Parbhoo and J.W. White -- Organosilicon derivatives of phosphorus, arsenic, antimony and bismuth / D.A. ("Fred") Armitage -- Chemistry of compounds with silicon-sulphur, silicon-selenium and silicon-tellurium bonds / D.A. ("Fred") Armitage -- Transition-metal silyl derivatives / T. Don Tilley -- The hydrosilylation reaction / Iwao Ojima. v. 2. 1998. [pt. 1.] Theoretical aspects and quantum mechanical calculations of silaaromatic compounds / Yitzhak Apeloig and Miriam Karni -- A molecular modeling of the bonded interactions of crystalline silica / G.V. Gibbs and M.B. Boisen -- Polyhedral silicon compounds / Akira Sekiguchi and Shigeru Nagase -- Thermochemistry / Rosa Becerra and Robin Walsh -- The structural chemistry of organosilicon compounds / Menahem Kaftory, Moshe Kapon and Mark Botoshansky -- ^{29}Si NMR spectroscopy of organosilicon compounds / Yoshito Takeuchi and Toshio Takayama -- Activating and directive effects of silicon / Alan R. Bassindale, Simon J. Glynn and Peter G. Taylor -- Steric effects of silyl groups / Jih Ru Hwu, Shwu-Chen Tsay and Buh-Luen Cheng -- Reaction mechanisms of nucleophilic attack at silicon / Alan R. Bassindale, Simon J. Glynn and Peter G. Taylor -- Silicenium ions : quantum chemical computations / Christoph Maerker and Paul von Ragué Schleyer -- Silicenium ions : experimental aspects / Paul D. Lickiss -- Silyl-substituted carbocations / Hans-Ullrich Siehl and Thomas Müller -- Silicon-substituted carbenes / Gerhard Maas -- Alkaline and alkaline earth silyl compounds preparation and structure / Johannes Belzner and Uwe Dehnert -- Mechanism and structures in alcohol addition reactions of disilenes and silenes / Hideki Sakurai -- [pt. 2.] Silicon-carbon and silicon-nitrogen multiply bonded compounds / Thomas Müller, Wolfgang Ziche and Norbert Auner -- Recent advances in the chemistry of silicon-heteroatom multiple bonds / Norihiro Tokitoh and Renji Okazaki -- Gas-phase ion chemistry of silicon-containing molecules / Norman Goldberg and Helmut Schwarz -- Matrix isolation studies of silicon compounds -- Günther Maier [and others] -- Electrochemistry of organosilicon compounds / Toshio Fuchigami -- The photochemistry of organosilicon compounds / A.G. Brook -- Mechanistic aspects of the photochemistry of organosilicon compounds / Mitsuo Kira and Takashi Miyazawa -- Hypervalent silicon compounds / Daniel Kost and Inna Kalikhman -- Silatranes and their tricyclic analogs / Vadim Pestunovich, Svetlana Kirpichenko and Mikhail Voronkov -- Tris(trimethylsilyl)silane in organic synthesis / C. Chatgialoglu, C. Ferreri and T. Gimisis -- Recent advances in the direct process / Larry N. Lewis -- Acyl silanes / Philip C. Bulman Page, Michael J. McKenzie, Sukhbinder S. Klair and Stephen Rosenthal -- Recent synthetic applications of organosilicon reagents / Ernest W. Colvin -- Recent advances in the hydrosilylation and related reactions / Iwao Ojima, Zhaoyang Li and Jiawang Zhu -- [pt. 3.] Synthetic applications of allylsilanes and vinylsilanes / Tien-Yau Luh and Shiu-Tzung Liu -- Chemistry of compounds with silicon-sulphur, silicon-selenium and silicon-tellurium bonds / D.A. ("Fred") Armitage -- Cyclic polychalcogenide compounds with silicon / Nami Choi and Wataru Ando -- Organosilicon derivatives of fullerenes / Wataru Ando

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v. 3. 2001. Theoretical aspects of compounds containing Si, Ge, Sn and Pb / Miriam Karni, Yitzhak Apeloig, Jürgen Kapp and Paul von R. Schleyer -- (Helium I)-photoelectron spectra of silicon compounds : history and achievements concerning their molecular states / H. Bock and B. Solouki -- ^{29}Si NMR experiments in solutions of organosilicon compounds / Jan Schraml -- Silyl radicals / C. Chatgililoglu and C.H. Schiesser -- Recent advances in the chemistry of silicon-silicon multiple bonds / Manfred Weidenbruch -- Recent developments in the chemistry of compounds with silicon-nitrogen bonds / Peter Neugebauer, Bettina Jaschke and Uwe Klingebiel -- Organosilicon halides : synthesis and properties / Uwe Herzog -- Synthesis of multiply bonded phosphorus compounds using silylphosphines and silylphosphides / Masaaki Yoshifuji and Kozo Toyota -- Polysilanes : conformations, chromotropism and conductivity / Robert West -- Nanostructured hybrid organic-inorganic solids : from molecules to materials / Bruno Boury and Robert J.P. Corriu -- Polysiloles and related silole-containing polymers / Shigehiro Yamaguchi and Kohei Tamao -- Polysilanol / Paul D. Lickiss -- Silicon-based dendrimers and hyperbranched polymers / David Y. Son -- Biotechnology reveals new routes to synthesis and structural control of silica and polysilsesquioxanes / Daniel E. Morse -- Chemistry on silicon surfaces / Cheol Ho Choi and Mark S. Gordon -- Silyl migrations / Mitsuo Kira and Takeaki Iwamoto -- Kinetic studies of the reactions of Si=C and Si=Si bonds / Tracy L. Morkin, Thomas R. Owens and William J. Leigh -- Ion-molecule reactions of silicon cations / Simonetta Fornarini.

Sommario/riassunto

Each book in "The Chemistry of Functional Groups" series is designed to cover all aspects of one of the important functional groups in organic chemistry. Emphasis is placed on the functional group treated and on the effects which it exerts on chemical and physical properties, primarily in the immediate vicinity of the group in question and secondarily on the behaviour of the whole molecule.; This volume, which is also available in two parts, deals with organic compounds containing carbon-silicon bonds, including derivatives with other heteroatoms, and reviews new developments of organosilicon chemistry in the last decade, such as multiple bonds to silicon.
