

Contents

CONTRIBUTORS	vii
--------------------	-----

Metal Complexes of Monocarbon Carboranes: A Neglected Area of Study?

THOMAS D. MCGRATH and F. GORDON A. STONE

I. Introduction	1
II. Synthesis.....	3
III. Reactions	7
IV. Monocarbollide–Metal Complexes with Non-Icosahedral Core Frameworks..	28
Acknowledgements	38
References	38

Synthesis of Novel Silicon-Containing Compounds via Lewis Acid-Catalyzed Reactions

IL NAM JUNG and BOK RYUL YOO

I. Introduction	41
II. Allylsilylation Reactions with Allyltriorganosilanes	42
III. Intramolecular Alkenyl-Migration Reaction of Alkenylchlorosilanes	49
IV. Friedel–Crafts Alkylation Reaction with Organosilicon Compounds	50
V. Hydrosilylation Reaction with Triorganosilanes.....	57
Acknowledgments	58
References	58

Bidentate Group 13 Lewis Acids with *ortho*-Phenylene and *peri*-Naphthalenediyl Backbones

MOHAND MELAIMI and FRANÇOIS P. GABBAÏ

I. Introduction	61
II. Synthesis.....	62
III. Interaction with Lewis Basic Substrates	85
IV. Conclusion	97

Acknowledgments	98
References	98

Metallasilsesquioxanes

VOLKER LORENZ and FRANK T. EDELMANN

I. Introduction	101
II. Silsesquioxane Precursors	105
III. Metallasilsesquioxanes	106
IV. Future Outlook	148
Acknowledgments	150
References	150

Cations of Group 14 Organometallics

THOMAS MÜLLER

I. Introduction	155
II. Synthetic Approaches to R_3E^+ Ions	156
III. Structure and Properties of R_3E^+ Cations	165
IV. A chemistry of R_3E^+ cations	206
Acknowledgements	210
References	210

Recent Advances in Nonclassical Interligand Si···H Interactions

GEORGII I. NIKONOV

I. Introduction	217
II. Silane σ -Complexes and Si–H···M Agostic Complexes	219
III. Silylhydride Complexes with Interligand Hypervalent Interactions M–H···SiX	270
IV. Multicenter H···Si Interactions in Polyhydridesilyl Complexes	291
V. Conclusions and Outlook	303
Acknowledgments	304
References	304
INDEX	311
CUMULATIVE LIST OF CONTRIBUTORS FOR VOLUME 1-36	317
CUMULATIVE INDEX FOR VOLUMES 37-53	321