Record Nr. UNISA996211962303316 Formation of bonds to C, Si, Ge, Sn, Pb . Part 2 [[electronic resource] /] **Titolo** / founding editor, J.J. Zuckerman; editor, A.P. Hagen Pubbl/distr/stampa New York, N.Y., : VCH, c1989 **ISBN** 1-282-30808-4 9786612308086 0-470-14524-2 0-470-14545-5 Descrizione fisica 1 online resource (541 p.) Collana Inorganic reactions and methods;; 10/2 ZuckermanJ. J <1936-1987.> (Jerold J.) Altri autori (Persone) HagenA. P Disciplina 541.3/9 541.39 Soggetti Chemical kinetics - Effect of temperature on Inorganic compounds - Synthesis Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto Inorganic Reactions and Methods; Contents; How to Use this Book; Preface to the Series: Editorial Consultants to the Series: Contributors to Volume 10; The Formation of Bonds to the Group-IVB Elements (C, Si, Ge, Sn, Pb) (Part 2); Formation of Bonds between Elements of Group IVB (C, Si, Ge, Sn, Pb) and Group IIIB (B, Al, Ga, In, Tl); Introduction; Formation of Carbon-Boron Bonds: Industrial Preparation of Boron Carbide.; Industrial Preparation of Boron-Carbide Powders.; Densification of Powders.; Laboratory Preparation of Boron Carbide (from the Elements or Boron Halides) by Direct Synthesis.by Reduction of BCI3 by H2 in the Presence of Carbon.; by Chemical Vapor Deposition (CVD).; by Reduction of Boric Anhydride at Low Temperatures.; by Plasma Synthesis.; by Physical Vapor Deposition (PVD).; Crystal Growth.; Boron Carbide Fibers.; from Boron Halides: by Reaction with More Polar Organometallics (Metal-Metal Exchange, Excluding Amino-, Oxo- and Thioboron Halides).; by Reaction with an Organoboron-Active-Metal Reagent.; by Substitution

of Hydrocarbons.; by Addition to Olefinic and Acetylenic Linkages

(Haloboration).; by Reaction with Diazoalkanes.

by Redistribution Reactions with Organoboranes.from Boron Alkoxides with More Polar Organometallics; Alkyl- and Arylboronic Acids.; Alkyl- and Arylborinic Acids.; to form Organoboranes with Three B-C Bonds.; from Boron Hyrides; by Addition to Olefins and Acetylenes (Hydroboration).; by Addition to Polar Organometallics to Form Organoborates.; by Redistribution of Organoboron Hydrides.; from Organoboranes; by Redistribution.; by Isomerization and Displacement.; by Pyrolytic Elimination of H2.; by Addition of Olefinic and Acetylenic Linkages (Carboboration).; from Larger Boranes and Carboranes

by Hydroboration of a Polyborane.by Modified Metal Halide-Catalyzed Alkylations with Organic Halides at a Boron Site.; by B,B Addition of Polyboranes to Alkynes.; by Boron Hydrides with Acetylides, Cyanides, or Isocyanides.; by CO Displacements from Polyboranes.; by Other Reactions Using Polyboranes.; Formation of Carbon-Al Bonds; from the Elements; from Al Metal and Its Alloys; by the Interaction of H2 Olefin and Al Metal.; by the Action of Organic Halides on Al.; by the Reaction of Organomercurials with Al.; from Al Halides or Organoaluminum Halides; by Reaction with Polar Organometallics.

by Redistribution with Organoaluminums.by the Interaction with an Active-Metal Hydride and Olefin.; by the Dehalogenation of RnAlX3- n with Active Metals.; from Al Hydrides or Complex Al Hydrides; by Addition to Olefins or Acetylenes (Hydroalumination).; by Transfer of Al Hydride from One Olefin to Another-Al Alkyl-Olefin Displacement.; by Redistribution with Organoaluminums.; by Exchange with Other Organometallics.; from Other Organoaluminum Compounds; by Addition of R-Al Bonds to Olefins or Acetylenes (Carbalumination). by Substitution of Acidic Carbon-Hydrogen Bonds by Carbon-Al Bonds (Alumination).

Sommario/riassunto

For the first time the discipline of modern inorganic chemistry has been systematized according to a plan constructed by a council of editorial advisors and consultants, among them three Nobel laureates (E.O. Fischer, H. Taube and G. Wilkinson). Rather than producing a collection of unrelated review articles, the series creates a framework which reflects the creative potential of this scientific discipline. Thus, it stimulates future development by identifiying areas which are fruitful for further research. The work is indexed in a unique way by a structured system which maximizes its usefulne