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| 1. Record Nr.           | UNINA9910877148903321   |
| Titolo                  | Formation of bonds to C, Si, Ge, Sn, Pb . Part 2 // founding editor, J.J. Zuckerman ; editor, A.P. Hagen  |
| Pubbl/distr/stampa      | New York, N.Y., : VCH, c1989  |
| ISBN                    | 1-282-30808-4<br>9786612308086<br>0-470-14524-2<br>0-470-14545-5  |
| Descrizione fisica      | 1 online resource (541 p.)  |
| Collana                 | Inorganic reactions and methods ; ; 10/2  |
| Altri autori (Persone)  | Zuckerman J. J <1936-1987.> (Jerold J.)<br>Hagen A. P   |
| Disciplina              | 541.3/9<br>541.39   |
| Soggetti                | Chemical kinetics - Effect of temperature on<br>Inorganic compounds - Synthesis   |
| Lingua di pubblicazione | Inglese   |
| Formato                 | Materiale a stampa  |
| Livello bibliografico   | Monografia  |
| Note generali           | Description based upon print version of record.   |
| 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 BCl <sub>3</sub> by H <sub>2</sub> 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 Hydrides; 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 H<sub>2</sub>.; 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 H<sub>2</sub> 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 R<sub>n</sub>AlX<sub>3-n</sub> 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).

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### 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 identifying areas which are fruitful for further research. The work is indexed in a unique way by a structured system which maximizes its usefulness

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