1. Record Nr. UNINA9910346673903321 Autore **Hoch Constantin** Titolo Compounds with Polar Metallic Bonding MDPI - Multidisciplinary Digital Publishing Institute, 2019 Pubbl/distr/stampa **ISBN** 3-03921-071-8 Descrizione fisica 1 electronic resource (154 p.) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto The Special Edition 'Compounds with Polar Metallic Bonding' is a collection of eight original research reports presenting a broad variety of chemical systems, analytical methods, preparative pathways and theoretical descriptions of bonding situations, with the common aim of understanding the complex interplay of conduction electrons in intermetallic compounds that possess different types of dipoles. Coulombic dipoles introduced by electronegativity differences, electric or magnetic dipoles, polarity induced by symmetry reduction—all the possible facets of the term 'polarity'—can be observed in polar intermetallic phases and have their own and, in most cases, unique consequences on the physical and chemical behaviour. Elucidation of the structure-property relationships in compounds with polar metallic bonding is a modern and growing scientific field which combines solid state physics, preparative chemistry, metallurgy, modern analytic methods, crystallography, theoretical calculations of the electronic

state and many more disciplines.