DESCRIPTION

Coordination polymer is a general term used to indicate an infinite array composed of metal ions which are bridged by certain ligands among them. This incorporates a wide range of architectures including simple one-dimensional chains with small ligands to large mesoporous frameworks. Generally, the formation process proceeds automatically and, therefore, is called a self-assembly process. In general, the type and topology of the product generated from the self-assembly of inorganic metal nodes and organic spacers depend on the functionality of the ligand and valences and the geometric needs of the metal ions used. In this book the authors explain main group metal coordination polymer in bulk and nano size with some of their application, synthesis method and etc, The properties of these efficient materials are described at length including magnetism (long-range ordering, spin crossover), porosity (gas storage, ion and guest exchange), non-linear optical activity, chiral networks, reactive networks, heterogeneous catalysis, luminescence, multifunctional materials and other properties.

ABOUT THE AUTHOR

Ali Morsali is Master in Inorganic Chemistry in Tarbiat Modares University, Tehran, Iran. He obtained his PhD in 2003 in Inorganic Chemistry from the same university. He has published more than 400 articles in international journals as well as 5 patents. He has received numerous national awards. Amongst his research interests are coordination chemistry and metal-organic frameworks.
Lida Hashemi is a postdoctoral researcher at Tarbiat Modarers University, Tehran, Iran. She obtained her PhD in inorganic chemistry from the same university in 2014. She has published 30 articles in international journals and has one patent to her name. Her research interests are coordination chemistry, nanotechnology and metal-organic frameworks.

For additional product details, please visit https://www.wiley.com/en-us