1. Record Nr. UNINA9910557755203321 Autore Rossin Andrea Titolo Functional Coordination Polymers and Metal-Organic Frameworks Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021 Descrizione fisica 1 electronic resource (155 p.) Soggetti Research & information: general Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia This book is a collection of contributions on the synthesis. Sommario/riassunto characterization, and applications of Metal-Organic Frameworks (MOF) and Coordination Polymers (CP). Coordination Polymers (CP) and Metal-Organic Frameworks (MOF) are at the core of contemporary research on inorganic materials. The virtually infinite combination of their building blocks—inorganic metallic nodes (single ions or clusters) and organic polytopic linkers (polycarboxylates, bridging N-/S-/O-containing heterocycles)—generates solid air- and water-stable compounds. Interesting features from an applicative point of view are porosity, large surface area, and lattice flexibility (the "breathing" effect). These properties make them ubiquitous in several fields of materials science: gas storage and separation, luminescent sensing, heterogeneous

catalysis, and magnetism.