

# Preface

The study of metal–ligand coordination polymers, also termed metal-organic frameworks (MOFs) and porous coordination compounds (PCPs), is a field of research that has risen rapidly over recent years to the forefront of modern chemistry and materials science. The field has grown out of coordination chemistry through supramolecular chemistry and crystal engineering to the discovery of porous hybrid materials via the design and implementation of new synthetic strategies, and of structural, theoretical, and topological analysis and modeling. A range of new fascinating porous materials showing specific and unprecedented properties and function are now emerging.

This volume focuses on recent advances in research on porous framework materials covering chiral separations, catalysis and activation, fuel gas storage and capture, reactivity in porous hosts, and magnetism. The control of chemistry within confined, nanoscale environments is an expanding platform technology for the future, which will be vital for the delivery of new sustainable processes, energy portals, and healthcare. Synthesis and materials design has never been more important.

Nottingham, Summer 2010

Martin Schröder



<http://www.springer.com/978-3-642-14612-1>

Functional Metal-Organic Frameworks: Gas Storage,  
Separation and Catalysis

Schröder, M. (Ed.)

2010, XII, 264 p. 158 illus., 48 illus. in color., Hardcover

ISBN: 978-3-642-14612-1