DESCRIPTION

This practical book combines recent progress with a discussion of the general aspects of catalyst preparation. The first part deals with the basic principles of solid catalyst preparation, explaining the main aspects of sol-gel chemistry and interfacial chemistry, followed by such techniques as co-precipitation and immobilization. New tools for catalyst preparation research, including microspectroscopy and high-throughput experimentation, are also taken into account. The second part heightens the practical relevance by providing six case studies on such topics as the preparation of zeolites, hydrotreating catalysts, methanol catalysts and gold catalysts.

ABOUT THE AUTHOR

Since 1997 Krijn de Jong is Full Professor of Inorganic Chemistry and Catalysis at Utrecht University. Before that he worked in industry for 15 years. His current research interests are catalyst preparation, electron tomography (3D-TEM), diffusion and catalysis with zeolites and mesoporous materials, solid base catalysts, nanostructured carbon materials, Fischer-Tropsch catalysis and hydrogen storage. He has authored over 150 papers and is the inventor for more than 25 patents.