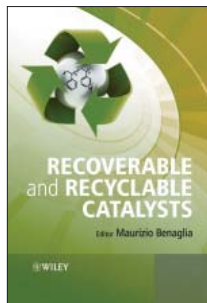


Books

RECOVERABLE AND RENEWABLE CATALYSTS

Edited by Maurizio Benaglia, John Wiley & Sons, Hoboken, NJ, \$160, 500 pages, Nov. 2009, ISBN: 978-0-470-68195-4



With continued pressure on chemical and pharmaceutical industries to reduce chemical waste and improve the selectivity and efficiency of synthetic processes, the need to implement green chemistry principles is a driving force behind the development of recoverable and recyclable catalysts. This volume explores this challenging interdisciplinary field, which combines

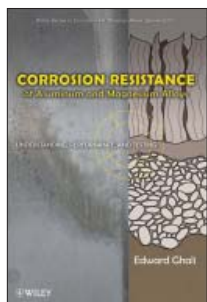
chemistry, materials science, and engineering with economic and environmental objectives.

Approximately 90% of commercially produced chemical products involve the use of catalysts. Editor Benaglia draws on international research to highlight recent developments in the field. Each chapter presents general principles, practical information on the design and synthesis of catalysts, and strategies for catalyst recovery. The book concludes with a comparison of several different catalytic systems, allowing readers to consider the positive and negative features of each method and to determine which approach works best for their needs.

This book will have practical applications in many industries, including pharmaceuticals and agricultural, commodity, specialty and fine chemicals. It will also be useful in academia, as well as to industrial chemists and chemical engineers working with catalysis.

CORROSION RESISTANCE OF ALUMINUM AND MAGNESIUM ALLOYS: UNDERSTANDING, PERFORMANCE, AND TESTING

Edward Ghali, John Wiley & Sons, Hoboken, NJ, \$150, 719 pages, Apr. 2010, ISBN: 978-0-471-71576-4



Aluminum and magnesium alloys are receiving increased attention from industry, due to their light weight, abundance, and resistance to corrosion. For example, when used in automobile manufacturing, these alloys offer reduced car weights, lower fuel consumption, and environmental benefits.

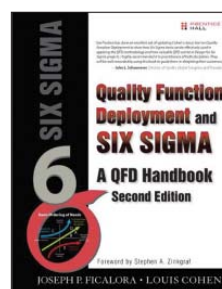
This book provides scientists, engineers, and students with a single-source reference for understanding both the corrosion fundamentals and applications relevant to these important light metals.

The volume surveys corrosion phenomena for aluminum and magnesium in a systematic and parallel fashion. The book begins with an introduction to the fundamentals of corrosion science, leading into individual examinations of the engineering performance and corrosion resistance of aluminum and magnesium alloys. Subsequent sections describe corrosion prevention methods, such as coatings for aluminum and magnesium, as well as different electrochemical methods of investigation, including testing and evaluation of the forms and types of corrosion that affect these alloys.

Supplemented with case studies, appendices, and detailed references, this book is a thorough and up-to-date reference for professionals using aluminum, magnesium, and their alloys, as well as a resource for graduate-level study.

QUALITY FUNCTION DEPLOYMENT AND SIX SIGMA: A QFD HANDBOOK, 2ND EDITION

Joseph P. Ficalora and Louis Cohen, Prentice Hall, Upper Saddle River, NJ, \$70, 454 pages, Aug. 2009, ISBN-13: 978-0-13-513835-9



Quality function deployment (QFD) techniques have helped many organizations deliver higher-quality, more user-focused product designs. This revised edition of Louis Cohen's original QFD guide has been updated to align QFD with Design for Six Sigma (DFSS) and other state-of-the-art Six Sigma methodologies.

Author Ficalora, a Six Sigma expert, brings an up-to-date perspective on QFD, reflecting his experience with dozens of successful Six Sigma and DFSS deployments. The second edition bridges the gap between traditional QFD and the rise of Lean Six Sigma — offering a start-to-finish methodology for implementing QFD, and systematically illustrating the linkages between QFD and Six Sigma, DFSS, Marketing for Six Sigma, and Technology for Six Sigma. An expanded case study demonstrates how QFD should operate from all angles, from design and marketing to technology and service.

This edition is written as a QFD reference for Black Belts and Green Belts in Six Sigma and DFSS. However, it also fulfills a need for engineers, managers, and engineering supervisors who wish to improve their companies' new-product development processes by including QFD, either by itself or with deployment of Lean Six Sigma or DFSS. The book blends these powerful strategies together, and offers key tools and new approaches, along with the basics of these methodologies.