

Good Introductory Books in Catalysis and Related Fields

Hariprasad Narayanan

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Catalysis History

- 1 The Development of Catalysis: A History of Key Processes and Personas in Catalytic Science and Technology, 2017
- 2 Catalysis: An Integrated Approach, 2nd Edition. Volume 123, Studies in Surface Science and Catalysis, 1993.
- 3 Studies in Surface Science and Catalysis
- 4 Catalytic Ammonia Synthesis: Fundamentals and Practice, 1991.
- 5 Fischer-Tropsch Synthesis, Catalysts, and Catalysis: Advances and Applications, CRC Press, 2016.
- 6 Fischer-Tropsch Synthesis, Catalysts and Catalysis, Volume 163, 1st Edition, 2007.
- 7 "Handbook of Heterogeneous Catalysis", Ed. G. Ertl, J. Weitkamp, H. Knözinger, Wiley, 1997.
- 8 Introduction: A Historical Approach to Catalysis, Modern Methods in Heterogeneous Catalysis F.C. Jentoft, October 24, 2003.

Catalysis History

- 1 Encyclopedia of Catalysis, 6 Volume Set, 4918 pages, Wiley 2012.
- 2 Pathways to Modern Chemical Physics, Springer, 2012.
- 3 Catalysis from A to Z: A Concise Encyclopedia, 4 Volume Set, 2516 pages, Wiley 2013.
- 4 History of Inorganic Chemistry: The Development of a Science in Germany from Döbereiner to today, Wiley 2017.
- 5 Landmarks in Organo-transition Metal Chemistry: A Personal View, Springer, 2009

Adsorption

- 1 The Adsorption of Gases and Vapors, Stephen Brunauer, 1943.
- 2 The Dynamic Character of Adsorption, J. H. de Boer, 1953.
- 3 Powder Surface Area and Porosity, Second Edition, 1984.
- 4 Adsorption, Surface and Porosity, 1982.
- 5 Characterization of Porous Solids and Powders: Surface Area, Pore Size and Density, 2004.
- 6 Surface Area and Porosity; Determination of Physisorption Measurements and Theory, 2006.
- 7 Uniform Interpretation of Gas/Solid Adsorption, Advances in Colloid and Interface Science, 55, 1-239, 1995.

Surface Science

- 1 The Chemistry of Metal Gas Interface, Oxford University Press, 1978
- 2 Introduction to surface chemistry and catalysis by Gábor A. Somorjai.
- 3 An American Scientist: The Autobiography of Gabor A. Somorjai with Mitch Jacoby
- 4 Surface Science: Foundations of Catalysis and Nanoscience, 3rd Edition by Kurt W. Kolasinski
- 5 Studies in Surface Science and Catalysis, Elsevier.
- 6 Modern Techniques of Surface Science, Third Edition, Cambridge University Press, 2017.
- 7 Uniform Interpretation of Gas/Solid Adsorption, Advances in Colloid and Interface Science, 55, 1-239, 1995.

Dissolution and Corrosion

- ① Chemical Dissolution of Metal Oxides, CRC Press, 1993.
- ② Corrosion and Corrosion Control, Forth Edition, Wiley Interscience, 2008.
- ③ Aquatic Chemistry: Chemical Equilibria and Rates in Natural Waters by Werner Stumm, James J. Morgan, 3rd Edition, 1993.
- ④ The Aqueous Chemistry of Oxides, Oxford University Press, 2016.
- ⑤ Chemistry of Water Treatment By Samuel D. Faust, Osman M. Aly, CRC Press, 1998.

Infrared Spectroscopy

- ① Practical Sampling Techniques for Infrared Analysis, 1st Edition, Patricia B. Coleman CRC Press, 1993
- ② The interpretations of any characterization techniques can be obtained from geochemistry/archaeology instrumentation analysis books and articles.

Mesoporous Solids

- ① Prof. Dr. Dongyuan Zhao, Dr. Ying Wan, Dr. Wuzong Zhou(auth.)
- Ordered Mesoporous Materials
- ② Nanocasting A Versatile Strategy for Creating Nanostructured Porous Materials RSC Nanoscience and Nanotechnology, 2010.
- ③ Franco Laeri, Ferdi Schüth, Ulrich Simon, Michael Wark Host-Guest Systems Based on Nanoporous Crystals, Wiley-VCH (2003)
- ④ Studies in Surface Science and Catalysis, Elsevier.

Zeolites

- 1 Chemistry-of-Zeolites-and-Related-Porous-Materials-Synthesis-and-Structure, Wiley, 2007.
- 2 Studies in Surface Science and Catalysis, Elsevier.
- 3 Mesoporous Zeolites:Preparation, Characterization and Applications, Wiley-VCH, 2015.
- 4 Zeolites and Catalysis: Synthesis, Reactions and Applications (2 Volume set), Wiley-VCH, 2010.
- 5 Insights into the Chemistry of Organic Structure-Directing Agents in the Synthesis of Zeolitic Materials, Springer International Publishing, 2018.