Petroleum Refining Design and Applications Handbook, Volume 4

A. Kayode Coker, Wiley, Hoboken, NJ, $329, 1,088 pages, Feb. 2023, ISBN: 978-1-119-82752-8

This book covers the most significant and recent changes to heat transfer and pinch analysis in petroleum refining. It reviews the design of heat exchanger equipment, crude oil fouling models, and fouling mitigation and monitoring using Excel spreadsheets and UniSim design software. The book covers shell-and-tube heat exchangers, double-pipe heat exchangers, air-cooled exchangers, heat loss tracing for process piping, and pinch analysis for hot and cold utility targets. It also discusses process safety incidents and relevant industrial case studies involving these pieces of equipment.

Managing Engineering, Procurement, Construction, and Commissioning Projects

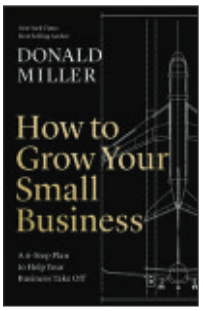
Avinashkumar V. Karre, Wiley, Hoboken, NJ, $95, 192 pages, Oct. 2022, ISBN: 978-3-527-34836-7

Engineering, procurement, construction, and commissioning (EPCC) infrastructure projects require engineers from several disciplines. Chemical engineers involved in EPCC projects often must ensure that the process plant is designed correctly and safely; this may involve interacting with the client, contributing to feasibility studies, selecting specific technologies, developing process flow diagrams, and other key tasks. This book defines the role of a chemical engineer in the EPCC industry and describes each phase of an EPCC project.

For Blood and Money: Billionaires, Biotech, and the Quest for a Blockbuster Drug

Nathan Vardi, W. W. Norton & Company, New York, NY, $30, 288 pages, Jan. 2023, ISBN: 978-0-393-54095-6

This book reviews what it takes to bring a wonder drug to market by telling the story of how an upstart biotechnology company created a one-in-a-million cancer treatment. The story follows a small team at a California biotech start-up that discovered a Bruton's tyrosine kinase (BTK) inhibitor compound. Today, this wonder drug is being used to treat a serious form of leukemia. The book illustrates why it is so hard to bring new drugs to market.



How to Grow Your Small Business

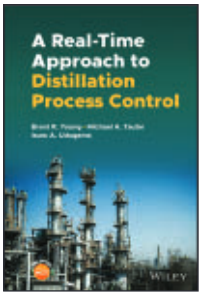
Donald Miller, HarperCollins Leadership, Nashville, TN, $27, 224 pages, March 2023, ISBN: 978-1-400-22695-5

Small businesses play a vital role in the economy, but running them is no easy feat. This book describes a six-step plan that small business owners can use to grow their businesses and generate dependable revenue. The book covers how to cast a vision for your company, clarify your marketing message, implement a successful sales framework, optimize your product offering, and run a management and productivity playbook that aligns your entire team.

Sulfuric Acid Digestion, Sulfuric Acid Baking, and Sulfation Roasting in Mineral and Chemical Processing, and Extractive Metallurgy

François Cardarelli, Electrochem Technologies & Materials, Inc., Montreal, Quebec, $150, 301 pages, Dec. 2022, ISBN: 978-1-777-57692-9

This book reviews the industrial use of sulfuric acid and describes the sulfation techniques used extensively in the mineral, chemical, and metallurgical industries across the globe. It provides relevant scientific and technical information for each major industrial process. It also describes several novel sulfation technologies that might be implemented in the near future. The book is a useful reference for those who work in the chemical and metal industries, including those in nontechnical positions.



A Real-Time Approach to Distillation Process Control

Brent R. Young, Michael A. Taube, and Isuru A. Udugama, Wiley, Hoboken, NJ, $160, 256 pages, Feb. 2023, ISBN: 978-1-119-66921-0

This book discusses the fundamental knowledge and tools required to apply modern distillation control principles. It offers a balanced, real-time approach to distillation process control with practical insights. The book covers distillation control hardware, distillation composition control, refinery vs. chemical plant distillation control, distillation control tuning, and advanced regulatory control, among others. In addition, it includes hands-on modeling and simulation exercises that can be performed on the process simulator locally available to the reader.