BOOK INFORMATION SHEET

TITLE: The Pilot Plant Real Book, 2nd Edition
A Unique Handbook for the Chemical Process Industry

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ILLUSTRATIONS: Over 200 2-color charts, graphs and illustrations

BACK MATTER: Bibliography, recommended reading, index

DESCRIPTION: A unique and highly practical handbook for chemists, chemical engineers, technicians, and students preparing to enter industry. It is designed for those working in chemical process development, or tech transfer to pilot or commercial plants. Contents include physical property data for chemicals, solvents, gases and materials; concise monographs on key concepts such as heat transfer, temperature control, agitation, distillation, crystallization, and process safety screening; equipment data; safety information; important pointers and guidelines for developing scalable reactions; tips and techniques for effective process development.

INTENDED AUDIENCE: Practicing chemists, chemical engineers and technicians, as well as students and graduates preparing to enter the fine chemical industry.

AUTHOR’S BACKGROUND: Francis X. McConville holds a BS in Chemistry and MS degrees in both Biotechnology and Chemical Engineering from Worcester Polytechnic Institute. He has been involved in the chemical and related fields for nearly 30 years, including 14 years as a process engineer at Sepracor, Inc. He has helped scale up chemical and biochemical processes in Asia, Europe and North America. He works as a consultant and training instructor and lives with his family in Massachusetts.

DISTRIBUTION: The Pilot Plant Real Book is available directly from the publisher and from select vendors of scientific books. Dealer inquiries welcome.
Given the importance of pilot plant, which can be viewed as one of the four elements of process development,[1] there is some truth in this assertion. At least this omission forgoes an opportunity to show the students how basic principles, experiments, know-how, experience, simulations, literature data, workflow, etc., come together in the development of products and processes. “Pilot plant real book” to be exact; “Pilot Plant Bible” not an exaggeration. I felt lucky to get a copy of this book BEFORE setting my foot into pilot plant. I found it extremely useful in transitioning into pilot plant operations from R&D laboratory environment. For these two, many things are same in principles but different in real operations. The book teaches everything: reactors, fittings, material compatibility, pumping, heat exchange, distillation, recrystallization, etc. In doing so it truly helps practitioners to scale up reactions successfully and safely. I u The Pilot Plant Role of the Plant · Factors in Scale-Up · Some Do’s and Don’ts · Tips for Developing Scalable Reactions · Calorimetry/Safety Screening · Haz-Ops · Flow Diagrams · Batch Records · GMP. 2. Equipment and Operations Equipment Train · Reactors · Agitation · Raw Material Charging · Reaction Control · Sampling · Workup · Distillation · Crystallization · Isolation/Filtration · Drying · Equipment Cleaning. Blend times on the order of 1-2 seconds are typical in a laboratory flask, but may be. The pilot plant real book. 1-3. 1 - The Pilot.