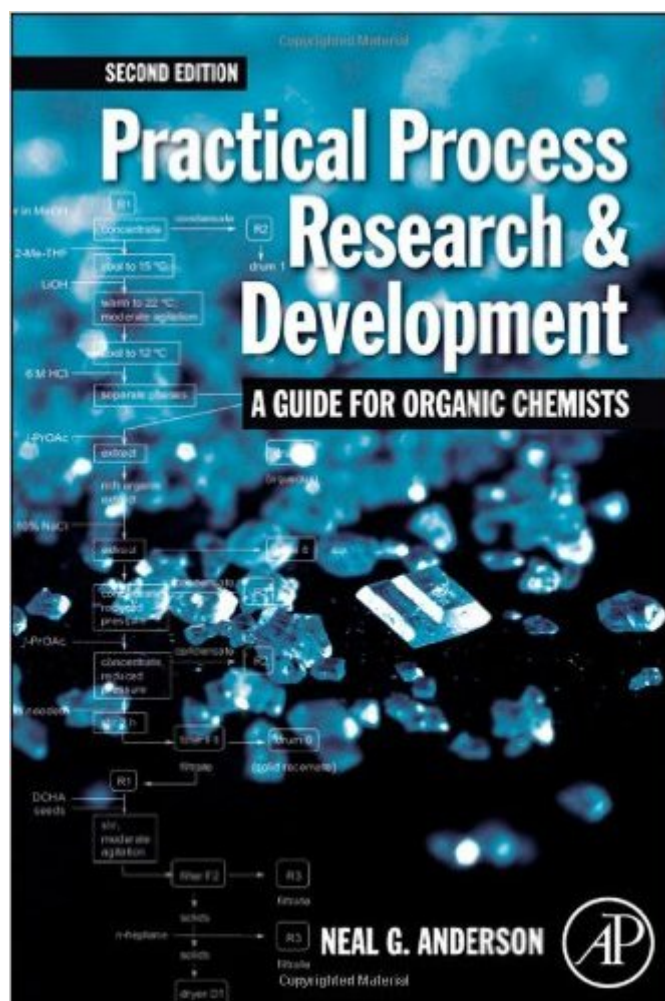


The book was found

Practical Process Research And Development - A Guide For Organic Chemists, Second Edition



Synopsis

Designed to provide a comprehensive, step-by-step approach to organic process research and development in the pharmaceutical, fine chemical, and agricultural chemical industries, this book describes the steps taken, following synthesis and evaluation, to bring key compounds to market in a cost-effective manner. It describes hands-on, step-by-step, approaches to solving process development problems, including route, reagent, and solvent selection; optimising catalytic reactions; chiral syntheses; and "green chemistry." Second Edition highlights:

- Reflects the current thinking in chemical process R&D for small molecules
- Retains similar structure and orientation to the first edition.
- Contains approx. 85% new material
- Primarily new examples (work-up and prospective considerations for pilot plant and manufacturing scale-up)
- Some new/expanded topics (e.g. green chemistry, genotoxins, enzymatic processes)
- Replaces the first edition, although the first edition contains useful older examples that readers may refer to

Provides insights into generating rugged, practical, cost-effective processes for the chemical preparation of "small molecules"

Breaks down process optimization into route, reagent and solvent selection, development of reaction conditions, workup, crystallizations and more

Presents guidelines for implementing and troubleshooting processes

Book Information

Hardcover: 488 pages

Publisher: Academic Press; 2 edition (April 23, 2012)

Language: English

ISBN-10: 0123865379

ISBN-13: 978-0123865373

Product Dimensions: 6.2 x 1.1 x 9 inches

Shipping Weight: 1.9 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars [See all reviews](#) (2 customer reviews)

Best Sellers Rank: #1,062,428 in Books (See Top 100 in Books) #203 in [Books > Science & Math > Chemistry > Inorganic](#) #847 in [Books > Science & Math > Chemistry > Organic](#) #2668 in [Books > Science & Math > Chemistry > General & Reference](#)

Customer Reviews

I am an inorganic/organometallic chemist by training. I took a job as a research chemist at a small metals based specialty chemical manufacturing company. After a few years in the R&D lab I took a role as the head of scale-up for our new line of organic and organometallic materials. This role

involves process development and scale-up of a wide variety of materials. This area is not something that was discussed much in graduate school (something I think should change). Because my company is small with a large number of products, this is a continual learn-as-I-go experience. This book, along with McConville's *The Pilot Plant Real Boom*, have become my go to resources for any and all problems related to process development. Both would make excellent texts for a graduate level course on process chemistry. The examples are based on the author's experience in the pharmaceutical field. However, I feel that the information contained in the book may be used for any sort of process development, from organic to materials. It's been extremely useful for me. I would highly recommend this book for anyone in the process chemistry field, from graybeards (as a handy reference tool) to newly minted chemists (as a detailed protocol for process development).

This is *the* book for process chemistry. I'm new to the field, but everyone I've talked to recommends this as the optimal starting point for learning about how process chemists think. Anderson does a great job of taking the reader through each concept while integrating TONS of examples so it's clear that this isn't just theory. I've heard that some of the things Anderson touts as rules are actually a little more fluid in industry, but this is of course dependent on what stage your project is at. For example, solvent choices aren't as strict as the book would make you believe, but he still does a great job of explaining why certain solvents are preferred and ways to move toward these preferred solvent systems. While this book frequently discusses concepts at quite a high level, it's still endlessly entertaining to read. Pages blow by very quickly. The only thing that has been a little strange is when the same chemical process is used in different chapters as an example of multiple different concepts. It's given me *deja vu* repeatedly, although each different example typically revolves around different data points.

[Download to continue reading...](#)

Practical Process Research and Development - A guide for Organic Chemists, Second Edition
Ace Organic Chemistry I: The EASY Guide to Ace Organic Chemistry I: (Organic Chemistry Study Guide, Organic Chemistry Review, Concepts, Reaction Mechanisms and Summaries)
Organic Body Care Recipes Box Set: Organic Body Scrubs, Organic Lip Balms, Organic Body Butter, And Natural Skin Care Recipes
Elements of Polymer Science & Engineering, Second Edition: An Introductory Text and Reference for Engineers and Chemists
Modern NMR Spectroscopy: A Guide for Chemists
Knowledge Development in Nursing: Theory and Process, 9e (Chinn, Integrated Theory and Knowledge Development in Nursing)
Pharmaceutical Analysis: A Textbook for Pharmacy Students and Pharmaceutical Chemists, 3e
Pharmaceutical Analysis: A Textbook for Pharmacy Students and

Pharmaceutical Chemists Pharmaceutical Analysis: A Textbook for Pharmacy Students and
Pharmaceutical Chemists, 2e Concepts of Chemical Engineering for Chemists Rheology for
Chemists: An Introduction Huerta Organica/ Organic Garden (Jardineria
Práctica / Practical Gardening) (Jardineria Práctica / Practical
Gardening) (Jardineria Práctica / ... (Jardineria Práctica / Practical Gardening) The
Foundations of Social Research: Meaning and Perspective in the Research Process Organic
Homemade Lotion Recipes - For All Skin Types (The Best Lotion DIY Recipes): Lotion Making For
Beginners (organic lawn care manual, organic skin care, beauty and the beast) Android: App
Development & Programming Guide: Learn In A Day! (Android, Rails, Ruby Programming, App
Development, Android App Development, Ruby Programming) Practical Decision Making: An
Introduction to the Analytic Hierarchy Process (AHP) Using Super Decisions V2 (SpringerBriefs in
Operations Research) Handbook of Raman Spectroscopy: From the Research Laboratory to the
Process Line (Practical Spectroscopy) Android: Programming & App Development For Beginners
(Android, Rails, Ruby Programming, App Development, Android App Development) Personal
Development: 5 Book Collection (Self Help, Personal Development, Self Development) Groups:
Process and Practice, 9th Edition (HSE 112 Group Process I)

[Dmca](#)