Organic Process Research & Development

Organic Chemistry: An Acid-Base Approach. By Michael B. Smith. CRC Press: Boca Raton, FL, United States. 2010. xvii + 1592 pp. \$139.95. ISBN 978-1-4200-7920-3

Michael B. Smith is to be commended not only for revising Jerry March's mammoth tome and compiling the latest volumes of "Compendium of Organic Synthesis", but now for completing a major undergraduate teaching text. How does he find the time to do all this writing?

This new book is designed to provide a new approach to teaching organic chemistry, to understand the relationships between functional groups via an acid—base theme. In 28 chapters the author provides a mechanistic approach to teaching organic chemistry, focusing on fundamental principles rather than a comprehensive accumulation of factual knowledge.

The approach works well, but I would have liked to see more discussion of kinetics to aid the discussion of mechanism—how have these mechanisms been elucidated if not by kinetic studies?

In over 1500 pages, with a very comprehensive 90+ page index, you would have thought there would be few omissions. However, the coverage of topics is a little uneven. Examples where I would have liked to see more detail, for example, are on optical resolution where the section is in desperate need of an example (not clear to the reader that most resolutions are simple salt formations, and that these salts can have widely differing solubilities). Another area given short shrift is aromatic nitration.

On the whole, though, this is an excellent book and an interesting approach to teaching organic chemistry; it deserves to be a "best" seller.

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