

Book Reviews

Dynamic Stereochemistry of Chiral Compounds - Principles and Applications. Edited by Christian Wolf. RSC Publishing: Cambridge, U.K. 2008. 512 + xx pp. £49.95. ISBN 9780854042463.

The author of this monograph indicates in the preface that it took 2 and 1/2 years to write this book—I can well believe it. It would be interesting to measure the effort in man hours!

Well, I think it was worth it. This is a fresh approach which will be of some interest to process chemists and engineers who are not only interested in synthesis but also in kinetics and rates of processes. Process chemists will enjoy Chapter 7 in particular, entitled “Asymmetric Resolution and Transformation of Chiral Compounds Under Thermodynamic and Kinetic Control”; this 57-page chapter has several industrial examples of dynamic kinetic resolution as well as numerous academic ones, along with discussion to assist the reader to understand the mechanistic rationale.

An earlier chapter on “Racemisation, Enantiomerisation and Diastereomerisation” is over 100 pages long and has 850 references, almost a monograph in itself. This chapter is an excellent discussion of the physicochemical principles

involved in isomerisation and is unlikely to be found in other books on asymmetric processes.

The rest of the book continues in the same excellent style, with a 100-page chapter on “Asymmetric Synthesis” and a short but necessary chapter on “Analytical Methods”.

The last 100 or so pages, on Chiral Propellers, Gears, Brakes, Scissors, Catenanes, Rotaxanes, etc. will not interest the process chemist, but the book is worth the price for what goes before.

The downside? I could not find any reference after 2005. In this fast-moving area this is a serious drawback, and students and industrial researchers will feel short-changed by this defect. Whether this is the fault of the author or the publisher, we shall never know. Hopefully, an updated edition will appear in the future.

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