Rob Capon*

Chiral Drugs and Chiral Intermediates

Edited by Cynthia A. Challener
Gower, Aldershot; Ashgate, Burlington, VT
Hardback, £295, $495

This two-volume set consists of compilations of chiral substances that have been designated as either intermediates suitable for chiral synthesis, or chiral drugs. The format is reminiscent of the Dictionary of Organic Compounds, or the Merck Index, with the volume Chiral Drugs going so far as to cite the Merck Index Number for each entry. Unfortunately the similarity between these two volumes and their predecessors ends with appearance.

Both volumes are poorly produced, and appear to have circumvented any serious effort at peer review. Even a casual browse reveals numerous anomalies and errors. Some obvious examples include the misspelling of ‘chiral’ in the chapter heading on pp. 1728–2128 of Chiral Intermediates, and the repeated failure to accurately portray structure diagrams with the designated absolute (or even relative) stereochemistry. Something of an embarrassment for volumes seeking to draw attention to chirality. Indeed, the presentation of structure diagrams suffers by a lack of consistent style, with some very peculiar and unnecessarily expanded approaches to drawing common functional groups. There are even examples of sp² centres with pseudo-stereochemical identifiers (i.e. entries 4501 and 4502 in Chiral Intermediates).

More fundamentally, much of the content in Chiral Intermediates is limited to the substance name, CA number, molecular formula, a structure diagram, and a commercial supplier for each entry. There are no scientific references detailing source, application, or biological activity, nor is there any consistent attempt to document spectroscopic data, or comment on handling or safety issues or optical purity. Perhaps the preface on Abbreviations and Symbols says it all. What serious scientific treatise would seek to (incorrectly) define SI units and chemical formula as abbreviations, in a list replete with such gems as abs config (absolute configuration), e.g. (for example), d (for dextro(rotary) and density!), hmtr (hamster), and even m₅ (millimicron), USA, UK, and symbol ∼. In short Chiral Intermediates is a poorly prepared, error-prone compilation of information that has been assembled with casual disregard for accuracy or relevance. Not surprisingly, given their common editor and publisher, Chiral Drugs is little better.

These volumes are not suitable for purchase at any price and, in the unlucky event that your library has ordered sight-unseen, it would be prudent to request that the books not be displayed for fear that they may confuse rather than support students and researchers alike.

*Rob Capon is a Professorial Fellow at the University of Queensland, and Director of the Centre for Molecular Biodiversity. With strong links to industry, Professor Capon is an internationally renowned researcher and author in the field of natural products chemistry.