

## Book review

Satyajit D. Sarker, Zahid Latif, Alexander I Gray (Eds.), **Natural Products Isolation, Second edition, Methods in Biotechnology 20**. Humana Press, Totawa, New Jersey, 2006, pp. 515, ISBN: 1-58829-447-1, Cost: GBP 79.50 (hardcover)

This book builds on the first edition by Richard Cennell and continues to aim at helping people to isolate new natural products from any source. The improvements in analytical methods and database searching shows clearly that there are many novel natural products waiting to be fully characterised even in commonly analysed materials such as foods. I strongly recommend this book for anyone working on natural products as it covers a wide range of new and older methods and technical background on the principles of the separation methods. Even people working on “metabolomics” who don’t know much about less common natural products would find this book of value to aid them in getting a more complete picture of the “metabolome”. It is true that know-how in isolating novel natural products gets passed down by word of mouth and practical experience more than in the scientific literature and most laboratories specialise in a few methods and classes of molecules they are familiar with. This book should help laboratories to widen their scope and allow them to increase diversity and efficiency of their work.

I will not list all the chapters but there is a wide range of subjects covered from extraction, analytical methods, to purification and crystallisation. There are examples of methods applicable to non-polar and polar natural products including an excellent background on ion exchange methods that are rarely used these days but which can be

very productive. Although isolation is still usually needed for full characterisation, it is important for efficiency to recognise common compounds early before isolation and one chapter deals with dereplication (identification of duplicates and known compounds at the analytical stage). The only oversight I think of the book is the poor coverage of GC–MS methods which offer great advantages in dereplication and “metabolomic” analysis of fairly low molecular weight natural products due to the great resolution and sensitivity. Even though not directly applicable to isolation of natural products which is the subject of this book, GC–MS can be useful to follow isolations and to check purity. There are descriptions of methods involving both expensive instruments and more classical cheaper methods. Examples of methods described are planar chromatography, supercritical fluid extraction, solvent partitioning, low pressure column and HPLC with hyphenated techniques such as LC–NMR.

In summary I think this book is an excellent source of information on modern and classic methods for natural products analysis, isolation and purification.

Robert J. Nash  
MNLPharma Limited,  
Plas Gogerddan,  
Aberystwyth,  
Ceredigion,  
Cardiganshire SY23 3EB,  
UK

Tel.: +44 1970 823 201; fax: +44 1970 823 209  
E-mail address: [robert.nash@mnlypharma.com](mailto:robert.nash@mnlypharma.com)

Available online 2 May 2006