

informative tables. A minor blemish is the rather poor state of some of the structural formulae and the incorrect directions of curved arrows in some reaction schemes.

The selection and range of references is the major strength of the book. Placing the references at the end of every chapter, rather than at the end of the book, makes them more accessible.

Overall, this formidable book represents a considerable advance in hydrocarbon chemistry knowledge. It is also reasonably priced by comparison with texts written in other specialist areas.

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**Quality Assurance for Environmental Analysis**  
Ph Quevauviller, E A Maier and B Griepink (eds)  
Elsevier, Amsterdam, 1995  
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This book is an authoritative survey of an area of work that is of increasing importance today, i.e. the underlying quality assurance work without which analytical results for compounds at low levels in the environment would be, essentially, meaningless. The book looks at three different aspects of quality assurance, viz. establishment of the state-of-the-art for speciation analysis, critical evaluation of the present analytical techniques and examination of existing quality assurance (QA). Clearly some form of QA background is either essential, or at the very least reassuring, if one is to have confidence in analytical results from materials at very low concentrations in complex biological or other matrices—the more so because legislation may be based on these analytical

results. There is no doubt then that the book is of great potential importance in a growing field and that it amply fills a previously empty niche. It is also reassuring that the contributing authors are very experienced in the field of analytical QA and work with the preparation of Certified Reference Materials (CRMs). In fact the background experience of many of the authors is via interlaboratory comparative work and meetings with the Measurements and Testing Programmes of the European Union (Bureau of Community Reference).

There are 24 chapters: the first two summarize QA matters, including the use of CRMs. The next four chapters review the various techniques used in environmental analysis (viz. using conventional abbreviations, ICPMS, AAS, NAA). Two further chapters cover work with sensors (flow-through and fibre optics). Eleven chapters then cover speciation (chemical and/or oxidation-state) analysis for a series of elements of environmental interest (i.e. chromium, aluminium, selenium, antimony, arsenic, mercury, organolead and organotin). Two chapters then cover techniques and extraction schemes for metals and metalloids in the environment. The final four chapters cover the analysis of organic compounds (chlorinated biphenyl, carbamates, polycyclic aromatic compounds and dioxins). The coverage is therefore comprehensive as well as authoritative, being written, as the editor notes, by experienced practitioners.

In essence, the book is a required piece of the laboratory furniture for any establishment dealing with low-level analysis, analysis from complex matrices and regulatory work. Do not let your laboratory be without it! The index is comprehensive (nine pages) and the refereeing is thorough. It is expensive and it will not be on many private shelves, but the corporate group must possess it.

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