

BOOK REVIEW

SYNTHESIS AND APPLICATIONS OF ISOTOPICALLY LABELLED COMPOUNDS 1988
Proceedings of the Third International Symposium,
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Edited by T A Baillie and J R Jones
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This is the third in a series of excellently produced texts covering the proceedings of the international symposium on the Synthesis and Applications of Isotopically Labelled Compounds. This third Symposium is the first to be organised by the International Isotope Society, and as with the previous texts in the series, this publication contains also a wealth of up-to-date information ranging from specific syntheses or applications to reviews on various topics concerning isotopes.

In the first part of the text are the three Plenary Lectures - Stable Isotopes as Metabolic Tracers (Cronholm), Synthesis and Applications of Cyclotron-produced tracers (Stöcklin) and Stable Isotopes in the Study of Lipid and Lipoprotein Metabolism (Hachey *et al*). The remaining 82 orally presented papers are included in the text under the following headings:

- Synthesis and Applications of Organic Compounds Labelled with Isotopic Hydrogen (10 papers on deuterium and tritium compounds)
- Applications of Stable Isotopes and NMR Spectroscopy for *in vivo* Studies (5 papers)
- Radiation-induced Reactions (5 papers)
- Applications of Isotopically-labelled Compounds in Clinical Research (9 papers covering a wide range of techniques as well as syntheses)
- Isotopes in Organic and Bio-organic Reaction Mechanisms (5 papers)
- New Techniques in Isotopic Analysis (7 papers describing improvements in established analytical methods)
- Synthesis and Application of Organic Compounds Labelled with Iodine Isotopes (2 papers of which one is a review of radioiodination techniques in current practice)
- Synthesis of Isotopically-Labelled Compounds via Organometallic Chemistry (2 papers devoted to syntheses using organotin and organoborane compounds)
- Synthesis and Applications of Organic Compounds Labelled with Isotopic Carbon, Sulphur and other isotopes (6 papers)

- Biotechnological Methods for the Stereoselective Preparation of Labelled Compounds (2 papers covering the use of biocatalytic methods and of fully deuterated microorganisms)
- The Use of Isotopically Labelled Compounds in Studies of Drug Metabolism, Disposition and Toxicity (8 papers focussing on isotope effects and stereochemical aspects)
- Synthesis and Applications of Organic Compounds Labelled with Isotopic Carbon (10 papers all concerned with carbon-14 labelled compounds)
- Synthesis and Applications of Labelled Compounds in Positron Emission Transaxial Tomography (PETT) (5 papers relating to ^{11}C , ^{15}O and ^{18}F compounds as radiopharmaceuticals)
- Applications of Radioactively-Labelled Compounds to *in vitro* and *in vivo* Research (4 papers including one paper on photosynthetic methods for obtaining labelled drugs from plants)
- Current Trends and Future Prospects in the Synthesis and Applications of Isotopically Labelled Compounds (2 papers one of which focusses on whole body autoradiography and the other on $^{17}\text{O}/^1\text{H}$ combined use for magnetic resonance microscopy in plants)

Unlike the text published for the previous Proceedings in this series, (*cf.* Book Review in Journal of Labelled Compounds and Radiopharmaceuticals, 24 (1987) 349-350) the decision to include in this publication the full text (303 pages) of the 75 Poster Presentations means that readers have a better appreciation of the additional important and valuable information presented in this format at the Symposium. Full credit to the Editors is due for this innovation!

The text includes a listing (with addresses) of attendees at the Symposium, and is completed with an Author Index and a modest Subject Index.

In summary, this text is clearly a most important reference and is recommended for all libraries serving the needs of the numerous scientists involved in the synthesis and applications of isotopically labelled compounds. It serves also as a useful review of such scientific work for those new to studies with isotopes. The rather high price for the text is surprising considering the photographic process used for printing, and this will, regrettably, likely reduce the number of copies purchased for "personal" use!

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