Journal of Chemical Research, Issue 10, 1987

Other papers in the subject areas covered by *J. Chem. Soc.* are published in synopsis/microform format in *J. Chem. Research.* For the benefit of readers of *J. Chem. Soc.*, the contents list of *J. Chem. Research (S)*, Issue 10, is reproduced below.

- 315 Stereochemistry of the Free-radical Addition of $BrCCl_3$ to Maleic and Fumaric Diesters and to Maleic Anhydride Jean-Yves (*M* 2660) Nedelec, Denise Blanchet, Daniel Lefort, and Jean Guilhem
- 316 The Use of Deuterium N.m.r. Spectroscopy in Mechanistic Studies of Exchange Reactions of Ethers on Supported Metal (*M* 2601) Catalysts Jane A. Campbell, Charles Kemball, and Gordon S. McDougall
- 318 The Characterization of a Diterpene Diglycoside from Jamaican *Turbina corymbosa*: The Application of 2D N.m.r. in its (*M* 2701) Structure Determination **Muraleedharan G. Nair, Basil A. Burke, Kenneth S. Manning,** and **David G. Lynn**
- 320 Scutellone A, a Novel Diterpene from *Scutellaria rivularis* Yun-Lian Lin, Yueh Hsiung Kuo, Gene-Hsiang Lee, and Shie-Ming (*M* 2672) Peng
- 322 The Synthesis of [1]Benzopyrano[4,3-*b*]pyridines and Pyrano[3,2-*c*][1]benzopyrans **Tahsin Al Nakib, D. Vivian Tyndall,** and (*M* 2743) **Mary J. Meegan**
- 324 Synthesis and ¹³C N.m.r. Study of Some Podocarpic Acid Derivatives Maria Amelia A. C. Ortellado and Anita J. (*M* 2686) Marsaioli
- 326 Dichalcogenins with Electron-withdrawing Substituents. Part 1. Crystal and Molecular Structures of Dithieno[3,4-*b*;3',4'-*e*][1,4]-(*M* 2773) dithiine-1,3,5,7-tetraone **Peer Berges, Winfried Hinrichs, Klaus-Wilhelm Stender,** and **Günter Klar**
- 328 X-Ray Crystal Structure and Activity of Rifamycinol, a Semi-synthetic Derivative of the Antibacterial Antibiotic Rifamycin S (M 2801) showing a Dimeric π - π Complex in the Crystal Luciano Cellai, Silvio Cerrini, Doriano Lamba, Vittorio Brizzi, and Mario Brufani
- The Synthesis and Chemistry of Azolenines. Part 10. Reinvestigation of a Reaction Reported to Yield Ethyl 2-Cyano-3-(3,4-dimethylphenyl)-5-(4-methoxyphenyl)-2H-pyrrole-2-carboxylate, and Thermal Rearrangements of This and a Regioisomer Shing-Hong Ip and Michael P.Sammes
 - A Variable-temperature 270 MHz N.m.r. Study of Structure and Dynamic Effects in 1,2-Bis(arylazo)cycloalkenes: a Degenerate
 Heterocyclic Rearrangement and Restricted Rotation of an *N*-Aryl Bond Richard N. Butler, Ann M. Gillan, (in part) Seamus Collier, and (in part) John P. James
 - Insertion of Sulphur into the Carbon-Boron Bond of Boranes
 Erich Lutz, Gerard Nee, Maurice Baran Marzak, and Jean Francois Biellmann
 - 336 Effect of a Change in the Reactant Size on Reaction Entropies for Transition-metal Redox Couples
 - (--) Jan S. Jaworski
 - 338 Oxygen-17 Nuclear Magnetic Resonance Investigation of Alkyl Isocyanates: Electronic and Steric Effects
 - (--) David W. Boykin
 - The Role of Acids in the Beckmann Rearrangement of (-)-(1R, trans)-p-Menthan-3-one (E)-Oxime Franco Fernández and (-) Cristina Pérez
 - 342 Iodination of Aromatic Compounds by Lewis Acid-catalysed Transiodination from 2,6-Di-iodo-*p*-cresol Masashi Tashiro, (--) Toshihiro Makishima, and Seiji Horie
 - Synthesis of 8-Methylnonanoic Acid, an Intermediate for the Preparation of Dihydrocapsaicin John Ackroyd, Stephen Jones,
 (-) and Feodor Scheinmann
 - 346 Novel Synthesis of Pyridazino[3,2-c][1,4]benzothiazine S,S-Dioxides
 - (—) Luca Bruché and Gaetano Zecchi
 - 348 Exciton Coupling and Local Cotton Effects of Steroidal 17β-Acyloxy-4-en-3-ones
 - (—) Krystyna Gawrońska
 - Strong Effect of Cation Structure on the lon-pair Extraction of Dianions and Hydrogensulphate from Water into Non-polar
 Solvents Eckehard V. Dehmlow and Burkhard Vehre
- 352 Reactions of Dimethyl Acetylenedicarboxylate with Indoles having Bulky 3-Substituents, and Further Reactions of Pyrrolo-(*M* 2629) [3,2,1-*hi*]indoles **Roy M. Letcher, Michael C. K. Choi**, and **John S. M. Wai**

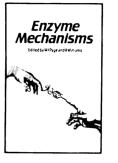
N.B. The numbers in parentheses, prefaced by *M*, indicate the first frame occupied by the *full-text version* of the paper in *J. Chem. Research (M).* Where no such number is given, the paper as published in *J. Chem. Research (S)* is complete in itself, and there is no extra material in Part *M*.

Printed in Great Britain by Richard Clay (The Chaucer Press), Ltd., Bungay, Suffolk

NEW BOOKS FOR ORGANIC CHEMISTS AND BIOCHEMISTS

Enzyme Mechanisms

Edited by M. Page Huddersfield Polytechnic



Hardcover approx 560pp ISBN 0 85186 947 5 Price £95.00 (\$183.00) RSC Members price £60.00

The mechanisms of enzyme catalysed reactions are now understood at the molecular level. Understanding how enzymes work is the first step towards the successful application of enzymes as catalysts in large scale synthesis both in the laboratory and industry. The design of new drugs as enzyme inhibitors is advanced by a knowledge of the reaction mechanism.

This book has several contributors who are experts in their own field, and each emphasises the important role that mechanisms play in building the bridges between chemistry and the biological sciences.

Enzyme Mechanisms discusses the chemistry and mechanisms of enzyme catalysed reactions and is suitable for readers of advanced undergraduate level and above.

Chemical Aspects of Food Enzymes

The use of food enzymes to facilitate an industrial manufacturing process has many attractions compared to purely chemical reaction mechanisms. These include the speed of reaction, the fact that the reactions take place under mild conditions and, most importantly, that they are highly specific, often stereospecific. The mild conditions reduce energy costs and the high specificity minimises the need for downstream processing. There are problems however with enzyme stability, enzyme reactor poisoning and enzyme hygiene. The efficiency of the reaction can be reduced by build-up of product concentration and the adsorption of inactive components such as lipids or other biopolymers.

The manufacture of cheese, beer, bakery products and other fermented produce employs enzymes in their earliest applications. The use of enzymes in a more sophisticated manner can present difficulties with regard to the huge tonnages of materials that need to be processed.

This publication reviews current applications of enzymes in food processes. It should stimulate interest and point the way forward in this area of vital importance.



Edited by A. T. Andrews AFRC Institute of Food Research, Reading

Softcover 326pp ISBN 0 85186 686 7 Price £37.50 (\$72.00) RSC Members price £24.50



ORDERING:

RSC Members should send their orders to: The Royal Society of Chemistry, Membership Manager, 30 Russell Square, London WC1B 5DT, UK. Non-RSC Members should send their orders to: The Royal Society of Chemistry, Distribution Centre, Blackhorse Road, Letchworth, Herts SG6 1HN, UK.