

**JOURNAL
OF
THE CHEMICAL SOCIETY**

PERKIN TRANSACTIONS II
Physical Organic Chemistry

CONTENTS

	PAGE
Benzamidoximes: configuration, conformation, and reactivity. Molecular orbital calculations By CHITTUR G. VENKATESH, RAJENDRA M. SRIVASTAVA, and IRA M. BRINN	873
β -Carbonylenamines. Crystal and molecular structure of Z-4-phenyl-4-piperidino-3-(<i>p</i> -tolylsulphonylamino)-but-3-en-2-one By GIOVANNI DARIO ANDRETTI, GABRIELE BOCELLI, and PAOLO SGARABOTTO.	876
Interaction of Acridine Orange and polyanions: fluorimetric determination of binding strengths and the influence of simple electrolytes By ROBERT B. CUNDALL, JOHN B. LAWTON, DAVID MURRAY, and GLYN O. PHILLIPS	879
Mechanistic studies of the hydrogen isotope exchange reaction catalysed by homogeneous platinum salts By JOHN L. GARNETT, RAYMOND J. HODGES, ROBERT S. KENYON, and MERVYN A. LONG	885
Gas-phase reaction of free isopropyl ions with phenol and anisole By MARINA ATTINÀ, FULVIO CACACE, GIOVANNA CIRANNI, and PIERLUIGI GIACOMELLO	891
Crystal structure and relative configuration of the <i>N</i> -acetyl- γ -lactone of the antifungal antibiotic thermozymocidin By RICCARDO DESTRO and ARTURO COLOMBO	896
Inter- and intra-molecular donor-acceptor complexes formed between alkylphthalimides and aromatic hydrocarbons By R. STEPHEN DAVIDSON and ANDREW LEWIS	900
Synthesis and X-ray structure of a cyclopenta[<i>d</i>]furo[2,3- <i>b</i>]furan derivative from isomerisation of 3,4,4-triacetyl-2-methyl- <i>cis</i> -4,4a,5,7a-tetrahydrocyclopenta[<i>b</i>]pyran By GIORGIO ADEMBRI, RENZO CINI, PIERLUIGI ORIOLI, RODOLFO NESI, and MIRELLA SCOTTI	903
Magnetic circular dichroism studies. Part 55. The aliphatic nitro chromophore By GÜNTER BARTH, NADA WAESPE-SARCEVIC, ROBERT E. LINDER, EDWARD BUNNENBERG, CARL DJERASSI, LLOYD SEAMANS, and ALBERT MOSCOWITZ.	907
Anodic oxidation of alicyclic bromides in acetonitrile By JAMES Y. BECKER and DVORA ZEMACH	914
Azido- and amino-labdanes. α - and β -Effects in ^{13}C nuclear magnetic resonance spectroscopy. The problem of the structure of tertiary azides By ANGE PANCRAZI and QUI KHUONG-HUU	918
Solid-state photochemistry. Part 1. Nature of the stereocontrol in the photodimerisation of dibenzylideneacetone by UO_2^{2+} ion: crystal and molecular structure of <i>trans</i> -dichlorobis(<i>trans,trans</i> -dibenzylideneacetone)dioxouranium(vi) and of its acetic acid solvate By NATHANIEL W. ALCOCK, PATRICE DE MEESTER, and TERENCE J. KEMP	921
Crystal structure and conformational flexibility of 2-(acetylamino)prop-2-enoic acid (<i>N</i> -acetyldehydroalanine) By DAVID AJÒ, GAETANO GRANOZZI, EUGENIO TONDELLO, ANTONIO DEL PRÀ, and GIUSEPPE ZANOTTI	927

Crystal structure of euryopsonol By GRAHAM R. WOOLARD, JAN A. PRETORIUS, PHILIP C. COLEMAN, and DOUGLAS E. A. RIVETT	930
Electrophilic substitution with rearrangement. Part 8. Some products of bromination of 3,4-dimethylphenol; a route to substitution <i>meta</i> - to a hydroxy-group By JUDITH M. BRITTAINE, PETER B. D. DE LA MARE, NEIL S. ISAACS, and PETER D. MCINTYRE	933
Secondary hydrogen isotope effects. Part 5. Acid and base strengths: corrigendum and addendum By (MRS.) YONA BARY, HAGGAI GILBOA, and E. AAMITAI HALEVI	938
Rate measurements of certain Vilsmeier-Haack reactions. Part 1. The benzoylation of a trisubstituted pyrrole By JULIAN WHITE and GEORGE McGILLIVRAY	943
Bridged ferrocenes. Part 14. A kinetic study of the hydrolysis of [m]ferrocenophan-1-yl acetates By NORMAN CULLY, JAMES PARK, and WILLIAM E. WATTS	947
Substituent effects and excited state reactivity By PETER J. BALDRY	951
Carbene chemistry. Part 12. Kinetics of the isomerisation, addition, and insertion reactions of 1,2,2-trifluoroethylidene By ROBERT N. HASZELDINE, CHRISTOPHER PARKINSON, PETER J. ROBINSON, and WILLIAM J. WILLIAMS	954
Further studies on metal-promoted vinylcyclopropane to cyclopentene rearrangements. Structure and thermolysis of rhodium complexes of <i>exo</i> -6-vinylbicyclo[3.1.0]hex-2-ene and the crystal structure of the 1,6—8- η^4 -5-allylcyclopent-2-enyl(hexafluoroacetylacetato)rhodium(III) tetramer By NATHANIEL W. ALCOCK, JOHN M. BROWN, JOHN A. CONNEELY, and DAVID H. WILLIAMSON	962
Crystal structure and conformation of 3-[bis(methylthio)methylene]pentane-2,4-dione By J. ANTHONY J. JARVIS and PETER J. TAYLOR	972
Backbone conformational properties of nucleotides in solution determined by ¹ H nuclear magnetic resonance spectroscopy By DAVID B. DAVIES	975
The conformational analysis of saturated heterocycles. Part 89. Conformational analysis of <i>trans</i> -1,2,3,4,5,6-hexamethyl-1,2,4,5-tetra-azacyclohexane By ALAN R. KATRITZKY, IAN J. FERGUSON, and RANJAN C. PATEL	981
The conformational analysis of saturated heterocycles. Part 90. Syntheses and conformational analysis of 1,2,4-trimethyl- and 1,2,3,4-tetramethyl-1,2,4-triazacyclohexanes By ALAN R. KATRITZKY and RANJAN C. PATEL	984
Conformational analysis of saturated heterocycles. Part 91. Synthesis and conformational equilibria of 1-oxa-2,5-diazacyclohexanes By ALAN R. KATRITZKY and RANJAN C. PATEL	993
<i>syn</i> - and <i>anti</i> -Conformation in oxodipyrromethenes: crystal and molecular structure of 3,4-dimethyl-2,2'-pyrromethen-5(<i>1H</i>)-one and its <i>N</i> -methyl derivative By DAVID L. CULLEN, GERARD PÈPE, EDGAR F. MEYER, JUN., HEINZ FALK, and KARL GRUBMAYR	999
The one-electron reduction of carbonium ions. Part 13. The conformational effects of cyclopropyl, isopropyl, and phenyl substituents flanked with methyl groups on the reduction rate of the tropylium ion with the chromous ion By KEN'ICHI TAKEUCHI, KOICHI KOMATSU, KENJI YASUDA, FUMIHIRO MIKUCHI, and KUNIO OKAMOTO	1005
A new approach for the design of inclusion compounds By ANDREW D. U. HARDY, DAVID D. MACNICAL, and DEREK R. WILSON	1011
The chemistry of nitroso-compounds. Part 14. Nitrosation of amines in aqueous solution by dissolved gaseous NOCl By BRIAN C. CHALLIS and DAVID E. G. SHUKER	1020
Photochemistry of α -oxo-oximes. Part 5. Photolysis of 3-ethoxyiminobutan-2-one By PETER BAAS and HANS CERFONTAIN	1025

INDEX OF AUTHORS' NAMES

- ADEMBRI, G., Cini, R., Orioli, P., Nesi, R., and Scotton, M., 903
Ajò, D., Granozzi, G., Tondello, E., Del Prà, A., and Zanotti, G., 927
Alcock, N. W., Brown, J. M., Conneely, J. A., and Williamson, D. H., 962
Alcock, N. W., de Meester, P., and Kemp, T. J., 921
Andreetti, G. D., Bocelli, G., and Sgarabotto, P., 876
Attinà, M., Cacace, F., Ciranni, G., and Giacomello, P., 891
Baas, P., and Cerfontain, H., 1025
Baldry, P. J., 951
Barth, G., Waespe-Sarcevic, N., Linder, R. E., Bunnenberg, E., Djerassi, C., Seamans, L., and Moscowitz, A., 907
Bary, Y., Gilboa, H., and Halevi, E. A., 938
Becker, J. Y., and Zemach, D., 914
Bocelli, G. See Andretti, G. D., 876
Brinn, I. M. See Venkatesh, C. G., 873
Brittain, J. M., de la Mare, P. B. D., Isaacs, N. S., and McIntyre, P. D., 933
Brown, J. M. See Alcock, N. W., 962
Bunnenberg, E. See Barth, G., 907
Cacace, F. See Attinà, M., 891
Cerfontain, H. See Baas, P., 1025
Challis, B. C., and Shuker, D. E. G., 1020
Cini, R. See Adembri, G., 903
Ciranni, G. See Attinà, M., 891
Coleman, P. C. See Woolard, G. R., 930
Colombo, A. See Destro, R., 896
Conneely, J. A. See Alcock, N. W., 962
Cullen, D. L., Pépe, G., Meyer, E. F., jun., Falk, H., and Grubmayr, K., 999
Cully, N., Park, J., and Watts, W. E., 947
Cundall, R. B., Lawton, J. B., Murray, D., and Phillips, G. O., 879
Davidson, R. S., and Lewis, A., 900
Davies, D. B., 975
de la Mare, P. B. D. See Brittain, J. M., 933
de Meester, P. See Alcock, N. W., 921
Del Prà, A. See Ajò, D., 927
Destro, R., and Colombo, A., 896
Djerassi, C. See Barth, G., 907
Falk, H. See Cullen, D. L., 999
Ferguson, I. J. See Katritzky, A. R., 981
Garnett, J. L., Hodges, R. J., Kenyon, R. S., and Long, M. A., 885
Giacomello, P. See Attinà, M., 891
Gilboa, H. See Bary, Y., 938
Granozzi, G. See Ajò, D., 927
Grubmayr, K. See Cullen, D. L., 999
Halevi, E. A. See Bary, Y., 938
Hardy, A. D. U., MacNicol, D. D., and Wilson, D. R., 1011
Haszeldine, R. N., Parkinson, C., Robinson, P. J., and Williams, W. J., 954
Hodges, R. J. See Garnett, J. L., 885
Isaacs, N. S. See Brittain, J. M., 933
Jarvis, J. A. J., and Taylor, P. J., 972
Katritzky, A. R., and Patel, R. C., 984, 993
Katritzky, A. R., Ferguson, I. J., and Patel, R. C., 981
Kemp, T. J. See Alcock, N. W., 921
Kenyon, R. S. See Garnett, J. L., 885
Khuong-Huu, Q. See Pancrazi, A., 918
Komatsu, K. See Takeuchi, K., 1005
Lawton, J. B. See Cundall, R. B., 879
Lewis, A. See Davidson, R. S., 900
Linder, R. E. See Barth, G., 907
Long, M. A. See Garnett, J. L., 885
McGillivray, G. See White, J., 943
McIntyre, P. D. See Brittain, J. M., 933
MacNicol, D. D. See Hardy, A. D. U., 1011
Meyer, E. F., jun. See Cullen, D. L., 999
Mikuchi, F. See Takeuchi, K., 1005
Moscowitz, A. See Barth, G., 907
Murray, D. See Cundall, R. B., 879
Nesi, R. See Adembri, G., 903
Okamoto, K. See Takeuchi, K., 1005
Orioli, P. See Adembri, G., 903
Pancrazi, A., and Khuong-Huu, Q., 918
Park, J. See Cully, N., 947
Parkinson, C. See Haszeldine, R. N., 954
Patel, R. C. See Katritzky, A. R., 981, 984, 993
Pépe, G. See Cullen, D. L., 999
Phillips, G. O. See Cundall, R. B., 879
Pretorius, J. A. See Woolard, G. R., 930
Rivett, D. E. A. See Woolard, G. R., 930
Robinson, P. J. See Haszeldine, R. N., 954
Scotton, M. See Adembri, G., 903
Seamens, L. See Barth, G., 907
Sgarabotto, P. See Andretti, G. D., 876
Shuker, D. E. G. See Challis, B. C., 1020
Srivastava, R. M. See Venkatesh, C. G., 873
Takeuchi, K., Komatsu, K., Yasuda, K., Mikuchi, F., and Okamoto, K., 1005
Taylor, P. J. See Jarvis, J. A. J., 972
Tondello, E. See Ajò, D., 927
Venkatesh, C. G., Srivastava, R. M., and Brinn, I. M., 873
Waespe-Sarcevic, N. See Barth, G., 907
Watts, W. E. See Cully, N., 947
White, J., and McGillivray, G., 943
Williams, W. J. See Haszeldine, R. N., 954
Williamson, D. H. See Alcock, N. W., 962
Wilson, D. R. See Hardy, A. D. U., 1011
Woolard, G. R., Pretorius, J. A., Coleman, P. C., and Rivett, D. E. A., 930
Yasuda, K. See Takeuchi, K., 1005
Zanotti, G. See Ajò, D., 927
Zemach, D. See Beckes, J. Y., 914

* The author to whom correspondence should be addressed is indicated by an asterisk after his name in the heading of the Paper.

