

JOURNAL
OF
THE CHEMICAL SOCIETY

PERKIN TRANSACTIONS II
Physical Organic Chemistry

CONTENTS

	PAGE
Linear free energy <i>ortho</i> -correlations in the thiophen series. Part 7. Kinetics of the reaction of some 3-substituted 2-thenoyl chlorides with aniline in benzene By GIOVANNI CONSIGLIO, DOMENICO SPINELLI, SALVATORE FISICHELLA, GAETANO ALBERGHINA, and RENATO NOTO	1153
Electrical effects in substituted thiazoles. pK_a Values of some 5-substituted 2-aminothiazoles and 5-substituted 2- <i>NN</i> -dimethylaminothiazoles By LUCIANO FORLANI, PAOLO DE MARIA, and ADAMO FINI	1156
Photochemistry of some azaphenanthrene <i>N</i> -oxides By ANGELO ALBINI, GIAN FRANCO BETTINETTI, and GIOVANNA MINOLI	1159
Kinetics of the reactions of silicon compounds. Part 10. Kinetics and mechanism of the gas-phase thermal reactions of trichloro-(1,1-difluoroethyl)silane. An intramolecular halogen exchange reaction By RICHARD H. BAKER, ROBERT N. HASZELDINE, and PETER J. ROBINSON	1162
Hydrogen bonds involving polar C-H groups. Part 7. Electron-deficient cyclohexenones as analogues of carboxylic acid dimers, and the crystal and molecular structure of 5,5-dimethyl-3-methylsulphonylcyclohex-2-enone By KIN SHING LUK, MICHAEL P. SAMMES, and RICHARD L. HARLOW	1166
Conformational studies. Part 12. The crystal and molecular structure of 17 β -iodoacetoxy-4,4-dimethyl-19-nor-5 α -androstan-3-one and of 17 β -iodoacetoxy-4,4-dimethyl-5 α -androstan-3-one By GEORGE FERGUSON, ERNEST W. MACAULAY, J. MONTEATH ROBERTSON, JOHN M. MIDGLEY, W. BASIL WHALLEY, and (in part) BRUCE A. LODGE	1170
Conformational studies. Part 13. 1H N.m.r. and <i>X</i> -ray analyses of 2 β -bromo-3 α -hydroxy-5 α -pregnane-11,20-dione, 3 α -hydroxy-2 β -methoxy-5 α -pregnane-11,20-dione, and 3 α -hydroxy-2 α -methyl-5 α -pregnane-11,20-dione By JOHN M. MIDGLEY, W. BASIL WHALLEY, BARRY E. AYRES, GORDON H. PHILLIPPS, GEORGE FERGUSON, and MASOOD PARVEZ	1176
Conformational studies. Part 14. An <i>X</i> -ray analysis of 6 α -hydroxy-4,4-dimethylandrostan-3-one By W. BASIL WHALLEY, GEORGE FERGUSON, and MASOOD A. KHAN	1183
Preparation and molecular structure of bridged tetra-aza macrocyclic ligands By NATHANIEL W. ALCOCK, PETER MOORE, and K. F. MOK	1186
A kinetic study of the soft metal ion-promoted hydrolyses of some <i>S</i> -acetals By DEREK P. N. SATCHELL and THOMAS J. WEIL	1191
On the active species of aluminium(III) bromide-copper(II) bromide mixtures as catalysts for the isomerization of pentane By NOBUMASA KITAJIMA, SHIGEHARU SAKUMA, and YOSHIO ONO	1201

	PAGE
Gas-phase thermolysis of a thioketen-S-oxide By LARS CARLSEN, HELGE EGSGAARD, and ERNST SCHAUMANN	1206
Conformation and reactivity. Part 9. Kinetics of the acid- or base-catalysed methanolysis of the methyl esters of <i>trans</i> -decalin- or cyclohexane-carboxylic acid and related acids. The validity of Taft's method for the separation of polar, steric, and resonance effects By ALAN G. BURDEN, NORMAN B. CHAPMAN, JOHN SHORTER, KENNETH J. TOYNE, and LINDA M. WILSON	1212
Potential energy profiles for unimolecular reactions of isolated organic ions: some isomers of C ₄ H ₁₀ N ⁺ and C ₅ H ₁₂ N ⁺ By RICHARD D. BOWEN	1219
Heterogeneous catalysis in solution. Part 21. The effect of various carbons on the solvolysis of 2-chloro-2-methyl-1-phenylpropane in 50% v/v ethanol-water By ROGER J. MORTIMER and MICHAEL SPIRO	1228
Oxidation of unsaturated aliphatic and arylalkyl alcohols by peroxydisulphate. Intramolecular cyclization of alkoxy radicals By ANGELO CLERICI and OMBRETTA PORTA	1234
Hydrolysis of azoesters <i>via</i> azoformate intermediates By ANTHONY F. HEGARTY and PATRICK TUOHEY	1238
Evidence against appreciable internal ion pair return in the solvolyses of tertiary aliphatic halides. Measurement of α -methyl/hydrogen rate ratios in hexafluoropropan-2-ol-water By T. WILLIAM BENTLEY, CHRISTINE T. BOWEN, (the late) WILLIAM PARKER, and C. IAN F. WATT	1244
A hydrogen-bonded complex. The crystal structure of 1,5,12,16,23,26,29-hepta-oxa[7 ^{3,14}][5.5]orthocyclophane-naphthalene-2,3-diol monohydrate By JUDITH A. HERBERT and MARY R. TRUTER	1253
Homosolvolysis. Part 2. Di- <i>t</i> -butyl nitroxide as the solvent and 2-methyl-2-nitrosopropane as internally generated spin trap By HARI SINGH, JOHN M. TEDDER, and JOHN C. WALTON	1259
A ¹ H nuclear magnetic resonance study of the interactions of vancomycin with <i>N</i> -acetyl-D-alanyl-D-alanine and related peptides By ODILE CONVERT, ALESSANDRO BONGINI, and JAMES FEENEY	1262
Activity coefficients and relative partial molal enthalpies of substituted anilines in aqueous perchloric acid solutions By SALEM A. ATTIGA and COLIN H. ROCHESTER	1271

INDEX OF AUTHORS' NAMES

- ALBERGHINA, G. See Consiglio, G., 1153
Albini, A., Bettinetti, G. F., and Minoli, G., 1159
Alcock, N. W., Moore, P., and Mok, K. F., 1186
Attiga, S. A., and Rochester, C. H., 1271
Ayres, B. E. See Midgley, J. M., 1176
Baker, R. H., Haszeldine, R. N., and Robinson, P. J., 1162
Bentley, T. W., Bowen, C. T., Parker, W., and Watt, C. I. F., 1244
Bettinetti, G. F. See Albini, A., 1159
Bongini, A. See Convert, O., 1262
Bowen, C. T. See Bentley, T. W., 1244
Bowen, R. D., 1219
Burden, A. G., Chapman, N. B., Shorter, J., Toyne, K. J., and Wilson, L. M., 1212
Carlsen, L., Egsgaard, H., and Schaumann, E., 1206
Chapman, N. B. See Burden, A. G., 1212
Clerici, A., and Porta, O., 1234
Consiglio, G., Spinelli, D., Fisichella, S., Alberghina, G., and Noto, R., 1153
Convert, O., Bongini, A., and Feeney, J., 1262
De Maria, P. See Forlani, L., 1156
Egsgaard, H. See Carlsen, L., 1206
Feeney, J. See Convert, O., 1262
Ferguson, G., Macaulay, E. W., Robertson, J. M., Midgley, J. M., Whalley, W. B., and Lodge, B. A., 1170
Ferguson, G. See also Midgley, J. M., 1176; and Whalley, W. B., 1183
Fini, A. See Forlani, L., 1156
Fisichella, S. See Consiglio, G., 1153
Forlani, L., De Maria, P., and Fini, A., 1156
Harlow, R. L. See Luk, K. S., 1166
Haszeldine, R. N. See Baker, R. H., 1162
Hegarty, A. F., and Tuohey, P., 1238
Herbert, J. A., and Truter, M. R., 1253
Khan, M. A. See Whalley, W. B., 1183
Kitajima, N., Sakuma, S., and Ono, Y., 1201
Lodge, B. A. See Ferguson, G., 1170
Luk, K. S., Sammes, M. P., and Harlow, R. L., 1166
Macaulay, E. W. See Ferguson, G., 1170
Midgley, J. M., Whalley, W. B., Ayres, B. E., Phillipps, G. H., Ferguson, G., and Parvez, M., 1176
Midgley, J. M. See also Ferguson, G., 1170
Minoli, G. See Albini, A., 1159
Mok, K. F. See Alcock, N. W., 1186
Moore, P. See Alcock, N. W., 1186
Mortimer, R. J., and Spiro, M., 1228
Noto, R. See Consiglio, G., 1153
Ono, Y. See Kitajima, N., 1201
Parker, W. See Bentley, T. W., 1244
Parvez, M. See Midgley, J. M., 1176
Phillipps, G. H. See Midgley, J. M., 1176
Porta, O. See Clerici, A., 1234
Robertson, J. M. See Ferguson, G., 1170
Robinson, P. J. See Baker, R. H., 1162
Rochester, C. H. See Attiga, S. A., 1271
Sakuma, S. See Kitajima, N., 1201
Sammes, M. P. See Luk, K. S., 1166
Satchell, D. P. N., and Weil, T. J., 1191
Schaumann, E. See Carlsen, L., 1206
Shorter, J. See Burden, A. G., 1212
Singh, H., Tedder, J. M., and Walton, J. C., 1259
Spinelli, D. See Consiglio, G., 1153
Spiro, M. See Mortimer, R. J., 1228
Tedder, J. M. See Singh, H., 1259
Toyne, K. J. See Burden, A. G., 1212
Truter, M. R. See Herbert, J. A., 1253
Tuohey, P. See Hegarty, A. F., 1238
Walton, J. C. See Singh, G., 1259
Watt, C. I. F. See Bentley, T. W., 1244
Weil, T. J. See Satchell, D. P. N., 1191
Wilson, L. M. See Burden, A. G., 1212
Whalley, W. B., Ferguson, G., and Khan, M. A., 1183
Whalley, W. B. See also Ferguson, G., 1170; and Midgley, J. M., 1176

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

