

JOURNAL
OF
THE CHEMICAL SOCIETY

PERKIN TRANSACTIONS II
Physical Organic Chemistry

CONTENTS

	PAGE
Comparative study of spin-orbital coupling for halogenated ethylbenzenes by a study of their fluorescence By ANTHONY HARRIMAN and BERNARD W. ROCKETT	217
Mechanism of electrophilic substitution at a saturated carbon atom. Part XVII. Mercury(I) as an electro- phile towards some transition alkylmetals By DAVID DODD and MICHAEL D. JOHNSON	219
Crystal structure and absolute configuration of bromoisotenulin By MAZHAR-UL-HAQUE, DONALD ROGERS, and CHARLES N. CAUGHLAN	223
Crystal structure and absolute configuration of caryophyllene chlorohydrin By MAZHAR-UL-HAQUE and DONALD ROGERS	228
Substitution at saturated carbon. Part XVII. Substitution of tetraethyltin by mercury(II) carboxylates in methanol By MICHAEL H. ABRAHAM and DAVOOD FARSHBAF DADJOUR	233
Some studies of substituent effects on the nucleophilic reactivities of thiophenoxide ions By MICHAEL R. CRAMPTON and MICHAEL J. WILLISON	238
Kinetic studies of Lewis acidity. Part I. Anionotropic rearrangement of 1-phenylprop-2-en-1-ol catalysed by aluminium(III), antimony(III), antimony(V), boron(III), gallium(III), phosphorus(III), phosphorus(V), phos- phoryl, tin(IV), titanium(IV), and zinc(II) chlorides By PADRAIG C. DOOLAN, PETER H. GORE, and DAVID N. WATERS	241
Infrared intensities as a quantitative measure of intramolecular interactions. Part XXV. Interactions be- tween substituents in <i>para</i> -disubstituted benzenes By ROBERT T. C. BROWNLEE, DAVID G. CAMERON, RONALD D. TOPSOM, ALAN R. KATRITZKY, and ALEXANDER F. POZHARSKY	247
Infrared intensities as a quantitative measure of intramolecular interactions. Part XXVI. Variable resonance behaviour by alkyl and substituted alkyl groups By TREVOR J. BROXTON, DAVID G. CAMERON, RONALD D. TOPSOM, and ALAN R. KATRITZKY	256
Infrared intensities as a quantitative measure of intramolecular interactions. Part XXVII. Substituents with donor-acceptor character: the NSO group By GRAEME BUTT, MICHAEL DAVIS, YUK TAU PANG, RONALD D. TOPSOM, and ALAN R. KATRITZKY	260
Infrared intensities as a quantitative measure of intramolecular interactions. Part XXVIII. Benzenethiols and methyl and <i>t</i> -butyl phenyl sulphides By NIGEL C. CUTRESS, T. BRUCE GRINDLEY, ALAN R. KATRITZKY, and RONALD D. TOPSOM	263
Infrared intensities as a quantitative measure of intramolecular interactions. Part XXIX. Methyl phenyl sulphones and sulfoxides By NIGEL C. CUTRESS, T. BRUCE GRINDLEY, ALAN R. KATRITZKY, MONODIP SHOME, and RONALD D. TOPSOM	268

	PAGE
Infrared intensities as a quantitative measure of intramolecular interactions. Part XXXI. Intramolecular interactions in arylacetylenes By T. BRUCE GRINDLEY, KEITH F. JOHNSON, ALAN R. KATRITZKY, HENRY J. KEOGH, and RONALD D. TOPSOM	273
Infrared intensities as a quantitative measure of intramolecular interactions. Part XXXII. Conjugation of the substituent and the triple bond in monosubstituted acetylenes By T. BRUCE GRINDLEY, KEITH F. JOHNSON, ALAN R. KATRITZKY, HENRY J. KEOGH, CHRISTINE THIRKETTLE, ROBERT T. C. BROWNLEE, JOHN A. MUNDAY, and RONALD D. TOPSOM	276
Infrared intensities as a quantitative measure of intramolecular interactions. Part XXXIII. Conjugation of substituents with the triple bond in disubstituted acetylenes By T. BRUCE GRINDLEY, KEITH F. JOHNSON, ALAN R. KATRITZKY, HENRY J. KEOGH, CHRISTINE THIRKETTLE, and RONALD D. TOPSOM	282
Infrared intensities as a quantitative measure of intramolecular interactions. Part XXXIV. Quantitative relations between conjugation and strain energies and σ°_R values: rotational barriers in monosubstituted benzenes By T. BRUCE GRINDLEY, ALAN KATRITZKY, and RONALD D. TOPSOM	289
A study of ^{13}C H coupling constants in hexopyranoses By KLAUS BOCK and CHRISTIAN PEDERSEN	293
A probe for homolytic reactions in solution. Part VIII. An electron spin resonance study of the rates of fragmentation and spin trapping of t-butoxycarbonyl radicals and acyl radicals By M. JOHN PERKINS and BRIAN P. ROBERTS	297
Aromatic reactivity. Part LV. Solvent isotope effects in the base cleavage of aryltrimethylstannanes in methanol: evidence for electrophilic assistance by the solvent By ROBERT ALEXANDER, WILLIAM A. ASOMANING, COLIN EABORN, IAN D. JENKINS, and DAVID R. M. WALTON	304
Crystal and molecular structure of carbonohydrazide sulphate By ANNA MARIA MANOTTI LANFREDI, MARIA ANGELA PELLINGHELLI, and ANTONIO TIRIPICCHIO	308
Rearrangements of pinane derivatives. Part V. The influence on rearrangements of a neutral nucleophile associated with the carbonium ion By HARVEY INDYK and DAVID WHITTAKER	313
Rearrangements of pinane derivatives. Part VI. Rearrangement <i>via</i> a [1,3] shift of carbon during reaction of 2 α H-10-aminopinane (<i>cis</i> -myrtanylamine) with nitrous acid By P. IAN MEIKLE and DAVID WHITTAKER	318
Inhibition of ring expansion reactions in the norbornane system by neighbouring methyl groups By P. IAN MEIKLE and DAVID WHITTAKER	322

INDEX OF AUTHORS' NAMES

- ABRAHAM, M. H., and Dadjour, D. F., 233
- Alexander, R., Asomaning, W. A., Eaborn, C., Jenkins, I. D., and Walton, D. R. M., 304
- Asomaning, W. A. See Alexander, R., 304
- Bock, K., and Pederson, C., 293
- Brownlee, R. T. C., Cameron, D. G., Topsom, R. D., Katritzky, A. R., and Pozharsky, A. F., 247
- Brownlee, R. T. C. See also Grindley, T. B., 276
- Broxton, T. J., Cameron, D. G., Topsom, R. D., and Katritzky, A. R., 256
- Butt, G., Davis, M., Pang, Y. T., Topsom, R. D., and Katritzky, A. R., 260
- Cameron, D. G. See Broxton, T. J., 256; and Brownlee, R. T. C., 247
- Caughlan, C. N. See Mazhar-Ul-Haque, 223
- Crampton, M. R., and Willison, M. J., 238
- Cutress, N. C., Grindley, T. C., Katritzky, A. R., and Topsom, R. D., 263
- Cutress, N. C., Grindley, T. B., Katritzky, A. R., Shome, M., and Topsom, R. D., 268
- Dadjour, D. F. See Abraham, M. H., 233
- Davis, M. See Butt, G., 260
- Dodd, D., and Johnson, M. D., 219
- Doolan, P. C., Gore, P. H., and Waters, D. N., 241
- Eaborn, C. See Alexander, R., 304
- Gore, P. H. See Doolan, P. C., 241
- Grindley, T. B., Johnson, K. F., Katritzky, A. R., Keogh, H. J., and Topsom, R. D., 273
- Grindley, T. B., Johnson, K. F., Katritzky, A. R., Keogh, H. J., Thirkettle, C., and Topsom, R. D., 282
- Grindley, T. B., Johnson, K. F., Katritzky, A. R., Keogh, H. J., Thirkettle, C., Brownlee, R. T. C., Munday, J. A., and Topsom, R. D., 276
- Grindley, T. B., Katritzky, A. R., and Topsom, R. D., 289
- Grindley, T. B. See also Cutress, N. C., 263, 268
- Harriman, A., and Rockett, B. W., 217
- Indyk, H., and Whittaker, D., 313
- Jenkins, I. D. See Alexander, R., 304
- Johnson, K. F. See Grindley, T. B., 273, 276, 282
- Johnson, M. D. See Dodd, D., 219
- Katritzky, A. R. See Broxton, T. J., 256; Brownlee, R. T. C., 247; Butt, G., 260; Cutress, N. C., 263, 268; and Grindley, T. B., 273, 276, 282, 289
- Keogh, H. J. See Grindley, T. B., 273, 276, 282
- Manotti Lanfredi, A. M., Pellinghelli, M. A., and Tiripicchio, A., 308
- Mazhar-Ul-Haque and Rogers, D., 228
- Mazhar-Ul-Haque, Rogers, D., and Caughlan, C. N., 223
- Meikle, P. I., and Whittaker, D., 318, 322
- Munday, J. A. See Grindley, T. B., 276
- Pang, Y. T. See Butt, G., 260
- Pedersen, C. See Bock, K., 293
- Pellinghelli, M. A. See Manotti Lanfredi, A. M., 308
- Perkins, M. J., and Roberts, B. P., 297
- Pozharsky, A. F. See Brownlee, R. T. C., 247
- Roberts, B. P. See Perkins, M. J., 297
- Rockett, B. W. See Harriman, A., 217
- Rogers, D. See Mazhar-Ul-Haque, 223, 228
- Shome, M. See Cutress, N. C., 268
- Thirkettle, C. See Grindley, T. B., 276, 282
- Tiripicchio, A. See Manotti Lanfredi, A. M., 308
- Topsom, R. D. See Broxton, T. J., 256; Brownlee, R. T. C., 247; Butt, G., 260; Cutress, N. C., 263, 268; and Grindley, T. B., 273, 276, 282, 289
- Walton, D. R. M. See Alexander, R., 304
- Waters, D. N. See Doolan, P. C., 241
- Whittaker, D. See Indyk, H., 313; and Meikle, P. I., 318, 322
- Willison, M. J. See Crampton, M. R., 238

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

