

**JOURNAL
OF
THE CHEMICAL SOCIETY**

PERKIN TRANSACTIONS II
Physical Organic Chemistry

CONTENTS

	<small>PAGE</small>
Absolute configuration at the chiral nitrogen atom in optically active oxaziridines. X-Ray structure, physical properties, and thermal epimerization of $(-)-(2S)$ - and $(+)-(2R)$ -2-[(R) - α -methylbenzyl]-3,3-diphenyloxaziridines	401
By ARRIGO FORNI, GIUSEPPE GARUTI, IRENE MORETTI, GIOVANNI TORRE, GIOVANNI DARIO ANDRETTI, GABRIELE BOCELLI, and PAOLO SGARABOTTO	401
The mechanism of hydrogen atom abstraction from phenols involved in hydrogen bonding with ester carbonyl groups	405
By JULIANNA KARDOS, ILONA FITOS, ILONA KOVÁCS, JÁNOS SZAMMER, and MIKLÓS SIMONYI	405
Polarographic reduction of a pyridoxal 5'-phosphate Schiff's base	409
By JUAN LLOR and MANUEL CORTIJO	409
Conformational analysis of acyclic compounds with oxygen-sulphur interactions. Some 2-thio-derivatives of 1-phenylethanol	412
By FELIPE ALCUDIA, FRANCISCO FARIÑA, JOSE L. GARCIA RUANO, and FELIX SÁNCHEZ	412
Radiation chemistry of carbohydrates. Part 16. Kinetics of HO_2^{\cdot} elimination from peroxy radicals derived from glucose and polyhydric alcohols	416
By EBERHARD BOTHE, DIETRICH SCHULTE-FROHLINDE, and CLEMENS VON SONNTAG	416
Conformational interconversion in the 1,1,4,4-tetramethyltetralin-2-ketyl radical anion by electron spin resonance	420
By LUIGI PASIMENI, MARINA BRUSTOLON, and CARLO CORVAJA	420
Polar effects in nucleophilic substitutions at aromatic and carbonyl carbon atoms. Kinetics of the reactions of substituted arenethiolates with 2,4-dinitrophenyl acetate and benzoate	422
By GIUSEPPE GUANTI, CARLO DELL'ERBA, FRANCESCA PERO, and GIORGIO CEVASCO	422
Quantitative perturbational molecular orbital calculations for conjugated hydrocarbons	425
By CHARLES F. COOPER	425
Basicity of the carbonyl group. Part 6. Calorimetric and spectrometric study of complexation of <i>para</i> -substituted <i>N</i> -ammoniobenzamides by boron trifluoride	431
By JEAN-FRANÇOIS GAL and DAVID G. MORRIS	431
<i>cis</i> -Divinylcyclopropane and the hexafluoroacetylacetone/rhodium(I) complexes of <i>cis</i> - and <i>trans</i> -divinylcyclopropane	436
By JOHN M. BROWN, BERNARD T. GOLDING, and JOHN J. STOKFO, JUN.	436
Evidence from the ultraviolet photoelectron and X-ray photoelectron spectra of phthalimide, quinolinimide, and their <i>N</i> -methyl derivatives regarding the prevailing tautomeric form of quinolinimide	441
By GIUSEPPE DISTEFANO, DEREK JONES, FRANCESCO P. COLONNA, ADRIANO BIGOTTO, VINICIO GALASSO, GIUSEPPE C. PAPPALARDO, and GIUSEPPE SCARLATA	441

Aromatic sulphonation. Part 64. Sulphonation of biphenylmonosulphonic acids and some other biphenyls, containing a deactivating substituent, in concentrated sulphuric acid By THEODORUS A. KORTEKAAS, HANS CERFONTAIN, and (in part) JOOST M. GALL	445
Non-equivalence in <i>NO</i> -dialkyl- <i>N</i> -aralkylhydroxylamines: the <i>N</i> -O rotation <i>versus</i> <i>N</i> -inversion controversy By TAMAR B. POSNER, DAVID A. COUCH, and C. DENNIS HALL	450
Mechanism of bimolecular nucleophilic substitution. Part 9. Stereochemical course of <i>ortho</i> -alkylation of phenoxide ion with optically active alkyl halides under S_N2 reaction conditions By KUNIO OKAMOTO, TOMOMI KINOSHITA, TSUKASA OISHI, and TAKAMASA MORIYAMA	453
Folded conformations. Part IX. Crystal and molecular structure of <i>p</i> -dimethylaminobenzyl <i>p</i> -nitrophenyl sulphone and <i>p</i> -chlorophenyl <i>p</i> -methoxybenzyl sulphone By IAN TICKLE, JOS HESS, AAFJE VOS, and JAN B. F. N. ENGBERTS	460
Temperature dependence of the rates of hydrolytic reactions in concentrated perchloric acid solutions By SALEM A. ATTIGA and COLIN H. ROCHESTER	466
Polar substituents and the luminescence of organic compounds. Part 3. Structural determinants By LESLIE A. KING	472
Kinetics of the mutarotation of α -D-tetramethylglucose in aqueous dioxan and dimethyl sulphoxide solution By CHER SOON CHIN and HSING HUA HUANG	474
Dipolar micelles. Part 4. Effect of catalytic micelles on the hydrolysis of neutral and positively charged esters By DINA WEXLER, AZRIEL PILLERSDORF, RINA SHIFFMAN, JEHOSHUA KATZHENDLER, and SHALOM SAREL	479
A simple molecular orbital perturbation treatment of the switching of bond order patterns within molecular systems By MARTIN GODFREY	487
Kinetics and mechanism of hydantoic ring opening. The alkaline hydrolysis of 3-arylimidazolidine-2,4-diones to 5-arylhydantoic acids By MICHEL BERGON and JEAN-PIERRE CALMON	493
Electron impact studies. Part 119. The nature of the transition state for loss of keten from quinone acetate molecular anions. A kinetic isotope effect study By JOE C. WILSON, JOHN A. BENBOW, JOHN H. BOWIE, and ROLF H. PRAGER	498
Investigations of structure and conformation. Part 10. Electron spin resonance and INDO studies of conformational interconversion in the tetrahydrofuran-2-yl and tetrahydrothiophen-2-yl radicals By CHRISTOPHER GAZE and BRUCE C. GILBERT	503

INDEX OF AUTHORS' NAMES

- ALCUDIA, F., Fariña, F., Ruano, J. L. G., and Sánchez, F., 412
Andreetti, G. D. See Forni, A., 401
Attiga, S. A., and Rochester, C. H., 466
Benbow, J. A. See Wilson, J. C., 498
Bergon, M., and Calmon, J-P., 493
Bigotto, A. See Distefano, G., 441
Bocelli, G. See Forni, A., 401
Bothe, E., Schulte-Frohlinde, D., and von Sonntag, C., 416
Bowie, J. H. See Wilson, J. C., 498
Brown, J. M., Golding, B. T., and Stofko, J. J., jun., 436
Brustolon, M. See Pasimeni, L., 420
Calmon, J-P. See Bergon, M., 493
Cerfontain, H. See Kortekaas, T. A., 445
Cevasco, G. See Guanti, G., 422
Chin, C. S., and Huang, H. H., 474
Colonna, F. P. See Distefano, G., 441
Cooper, C. F., 425
Cortijo, M. See Llor, J., 409
Corvaja, C. See Pasimeni, L., 420
Couch, D. A. See Posner, T. B., 450
Dell'Erba, C. See Guanti, G., 422
Distefano, G., Jones, D., Colonna, F. P., Bigotto, A., Galasso, V., Pappalardo, G. C., and Scarlata, G., 441
Engberts, J. B. F. N. See Tickle, I., 460
Fariña, F. See Alcudia, F., 412
Fitos, I. See Kardos, J., 405
Forni, A., Garuti, G., Moretti, L., Torre, G., Andreetti, G. D., Bocelli, G., and Sgarabotto, P., 401
Gal, J-F., and Morris, D. G., 431
Galasso, V. See Distefano, G., 441
Gall, J. M. See Kortekaas, T. A., 445
Garuti, G., See Forni, A., 401
Gaze, C., and Gilbert, B. C., 503
Gilbert, B. C. See Gaze, C., 503
Godfrey, M., 487
Golding, B. T. See Brown, J. M., 436
Guanti, G., Dell'Erba, C., Pero, F., and Cevasco, G., 422
Hall, C. D. See Posner, T. B., 450
Hess, J. See Tickle, I., 460
Huang, H. H. See Chin, C. S., 474
Jones, D. See Distefano, G., 441
Kardos, J., Fitos, I., Kovács, I., Szammer, J., and Simonyi, M., 405
Katzhendler, J. See Wexler, D., 479
King, L. A., 472
Kinoshita, T. See Okamoto, K., 453
Kortekaas, T. A., Cerfontain, H., and Gall, J. M., 445
Kovács, I. See Kardos, J., 405
Llor, J., and Cortijo, M., 409
Moretti, I. See Forni, A., 401
Moriyama, T. See Okamoto, K., 453
Morris, D. G. See Gal, J-F., 431
Oishi, T. See Okamoto, K., 453
Okamoto, K., Kinoshita, T., Oishi, T., and Moriyama, T., 453
Pappalardo, G. See Distefano, G., 441
Pasimeni, L., Brustolon, M., and Corvaja, C., 420
Pero, F. See Guanti, G., 422
Pillersdorf, A. See Wexler, D., 479
Posner, T. B., Couch, D. A., and Hall, C. D., 450
Prager, R. H. See Wilson, J. C., 498
Rochester, C. H. See Attiga, S. A., 466
Ruano, J. L. G. See Alcudia, F., 412
Sánchez, F. See Alcudia, F., 412
Sarel, S. See Wexler, D., 479
Scarlata, G. See Distefano, G., 441
Schulte-Frohlinde, D. See Bothe, E., 416
Sgarabotto, P. See Forni, A., 401
Shiffman, R. See Wexler, D., 479
Simonyi, M. See Kardos, J., 405
Stofko, J. J., jun. See Brown, J. M., 436
Szammer, J. See Kardos, J., 405
Tickle, I., Hess, J., Vos, A., and Engberts, J. B. F. N., 460
Torre, G. See Forni, A., 401
von Sonntag, C. See Bothe, E., 416
Vos, A. See Tickle, I., 460
Wexler, D., Pillersdorf, A., Shiffman, R., Katzendler, J., and Sarel, S., 479
Wilson, J. C., Benbow, J. A., Bowie J. H., and Prager, R. H., 498

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

