

JOURNAL OF THE CHEMICAL SOCIETY

Perkin Transactions II

Physical Organic Chemistry

CONTENTS

- v Instructions for Authors (1985)
- xxiii Refereeing Procedure and Policy (1985)
- 1 Nuclear magnetic resonance study of Ln^{3+} complexes with aspartate and glutamate residues. Thermodynamic and Structural Analysis Nadège Jamin, Daniel Baron, and Nicole Lumbroso-Bader
- 9 Molecular structure of the electron donor-acceptor complex of trimethylamine-dibromine in the gas phase as determined by electron diffraction Shuzo Shibata and Jun Iwata
- 11 Studies of the transition-state structure by the method of volumetric steric effects. Part 4. Transition state in Diels-Alder reactions of (*E*)-1-alkyl(alkoxy)buta-1,3-dienes with alkyl acrylates Boris S. El'yanov, Svetlana K. Shakhova, Boris D. Polkovnikov, and Lev F. Rar
- 17 Kinetics of the reactions of phenacyl bromide and of *para*-substituted phenacyl bromides with benzoate and substituted *trans*-cinnamate ions Chockalingam Srinivasan, Arunachalam Shunmugasundaram, and Natesan Arumugam
- 21 Kinetics and stereochemistry of β -elimination of (*S*)-*O*-acylthreonine in Λ - and Δ -bis-[*N*-salicylidene-(*S*)-*O*-acylthreoninato]cobaltate(III) ions. Implications for vitamin B_6 -catalysed reactions Yurii N. Belokon', Ashot S. Sagiyani, Irina V. Ponomarenko, Vladimir I. Bakhmutov, and Vasili Belikov
- 29 The effect of steric crowding on the structures of solvolytically reactive arylvinyl systems Menahem Kaftory, Yitzhak Apeloig, and Zvi Rappoport
- 39 Oxidation of methionine by sodium *N*-chlorotoluene-*p*-sulphonamide in aqueous solution: a kinetic study D. S. Mahadevappa, S. Ananda, N. M. Made Gowda, and Kanchugarakoppal S. Rangappa
- 45 Polarographic behaviour of some 5-arylmethylene-2-phenylhydrazonothiazolidin-4-ones in aqueous medium Hussein M. Fahmy, Hamed Abdel-Reheem Ead, and Mohamed Abdul-Wahab
- 51 Proton abstraction from bis-(2,4-dinitrophenyl)methane by methoxide ion Patrick G. Farrell, Paula Fogel, Alain-Pierre Chatrousse, Jacques Lelièvre, and François Terrier
- 57 Theoretical study on alkylation and esterification of methyl 3,6-anhydro- α -D-galactopyranoside Aleksander P. Mazurek and Wiesław Szeja
- 59 Mechanisms of antioxidant action. Part 4. The decomposition of 1-methyl-1-phenylethyl hydroperoxide by zinc dialkyl-dithiocarbamates and zinc xanthates Michael D. Sexton
- 65 ^1H and ^{13}C nuclear magnetic resonance studies on X-537A (lasalocid-A)-calcium complexes: observation of a sandwich complex Chitradurga K. Vishwanath and Kalpathy R. K. Easwaran
- 69 Cyclic organophosphorus compounds. Part 21. Crystallographic and spectroscopic assignments of configuration at phosphorus in 2-chloro-4-isopropyl-5,5-dimethyl-1,3,2 λ^5 -dioxaphosphorinan-2-ones and in 2-methoxy-4-isopropyl-5,5-dimethyl-1,3,2-dioxaphosphorinanes Ronald S. Edmundson, Owen Johnson, Derry W. Jones, and Trevor J. King
- 77 Substituent and steric effects of flavin models in the reactions of *N*-benzyl-1,4-dihydronicotinamide, butane-1,4-dithiol, phenylhydrazine, and nitroethane Yumihiiko Yano, Michiaki Nakazato, and Eiichi Ohya

CONTENTS

- 83 ¹H Spin-lattice relaxation times of quaternary piperidinium salts **Makiko Sugiura, Narao Takao, Shinichi Ueji, and Hideaki Fujiwara**
- 87 Kinetics of the formation of the 1,3-complex and on the formation and decomposition of the intermediate complex. Reaction of 2,4,6-trinitroanisole with n-butylamine in dimethyl sulphoxide **Yoshinori Hasegawa**
- 93 Stable quinonoid nitronates. A structure investigation of ethyl 2-nitrophenylpyruvate anions based on nuclear magnetic resonance spectroscopy and MO-SCF-HAM/3 calculations **Jan Bergman and Peter Sand**
- 97 Condensed five-membered heterocycles with potentialities as conducting polymers: *ab initio* electronic structures and theoretical valence X-ray photoelectron spectra **R. Lazzaroni, J. P. Boutique, J. Riga, J. J. Verbist, J. G. Fripiat, and J. Delhalle**
- 103 Basicity of the carbonyl group. Part 12. Correlations between ionization potentials and Lewis basicities in aromatic carbonyl compounds **Jean-François Gal, Serge Geribaldi, Genevieve Pfister-Guillouzo, and David G. Morris**
- 107 The hydrolysis of Pyrrolidine Green and some derivatives. Part 2. The kinetics of the hydrolysis of some 3-substituted derivatives of Pyrrolidine Green **Steven F. Beach, John D. Hepworth, Donald Mason, Bernadette May, and Geoffrey Hallas**
- 111 A comparative theoretical study of the effects of first- and second-row substituents in α -substituted carbanions **Fernando Bernardi, Angelo Mangini, Glauco Tonachini, and Piero Vivarelli**
- 115 High-pressure kinetics of the reactions of *p*-benzoquinone with aliphatic amines in aprotic solvents **Yoh-ichi Inagaki, Jiro Osugi, and Muneo Sasaki**
- 121 Improved correlation analysis of electron spin resonance spectra: pyridylmethyl radicals **Richard A. Jackson and Christopher J. Rhodes**
- 127 Conformational study of a photochemical cyclopentenone rearrangement. Molecular mechanics calculations and X-ray structure of 14 β -hydroxy-5-methoxy-de-A-oestra-5,7,9,16-tetraen-15-one **R. Alan Howie, Alan B. Turner, and Philip J. Cox**
- 131 The location of transition states for the addition of singlet methylene to substituted ethylenes **Miguel Moreno, José M. Lluch, Antonio Oliva, and Juan Bertrán**

AUTHOR INDEX

- Abdel-Reheem Ead, Hamed, 45
Abdul-Wahab, Mohamed, 45
Ananda, S., 39
Apeloig, Yitzhak, 29
Arumugam, Natesan, 17
Bakhmutov, Vladimir I., 21
Baron, Daniel, 1
Beach, Steven F., 107
Belikov, Vasilii, 21
Belokon', Yurii N., 21
Bergman, Jan, 93
Bernardi, Fernando, 111
Bertrán, Juan, 131
Boutique, J. P., 97
Chatrousse, Alain-Pierre, 51
Cox, Philip J., 127
Delhalle, J., 97
Easwaran, Kalpathy R. K., 65
Edmundson, Ronald S., 69
El'yanov, Boris S., 11
Fahmy, Hussein M., 45
Farrell, Patrick G., 51
Fogel, Paula, 51
Fripiat, J. G., 97
Fujiwara, Hideaki, 83
Gal, Jean-François, 103
Geribaldi, Serge, 103
Hallas, Geoffrey, 107
Hasegawa, Yoshinori, 87
Hepworth, John D., 107
Howie, R. Alan, 127
Inagaki, Yoh-ichi, 115
Iwata, Jun, 9
Jackson, Richard A., 121
Jamin, Nadège, 1
Johnson, Owen, 69
Jones, Derry W., 69
Kaftory, Menahem, 29
King, Trevor J., 69
Lazzaroni, R., 97
Lelièvre, Jacques, 51
Lluch, José M., 131
Lumbroso-Bader, Nicole, 1
Made Gowda, N. M., 39
Mahadevappa, D. S., 39
Mangini, Angelo, 111
Mason, Donald, 107
May, Bernadette, 107
Mazurek, Aleksander P., 57
Moreno, Miguel, 131
Morris, David G., 103
Nakazato, Michiaki, 77
Ohya, Eiichi, 77
Oliva, Antonio, 131
Osugi, Jiro, 115
Pfister-Guilouzo, Genevieve, 103
Polkovnikov, Boris D., 11
Ponomarenko, Irina V., 21
Rangappa, Kanchugarakoppal S., 39
Rappoport, Zvi, 29
Rar, Lev F., 11
Rhodes, Christopher J., 121
Riga, J., 97
Sagiyan, Ashot S., 21
Sand, Peter, 93
Sasaki, Muneo, 115
Sexton, Michael D., 59
Shakhova, Svetlana K., 11
Shibata, Shuzo, 9
Shunmugasundaram, Arunachalam, 17
Srinivasan, Chockalingam, 17
Sugiura, Makiko, 83
Szeja, Wieslaw, 57
Takao, Narao, 83
Terrier, François, 51
Tonachini, Glauco, 111
Turner, Alan B., 127
Ueji, Shinichi, 83
Verbist, J. J., 97
Vishwanath, Chitradurga K., 65
Vivarelli, Piero, 111
Yano, Yumihiko, 77

NOTE: An asterisk in the heading of each paper indicates the author who is to receive any correspondence.

