

JOURNAL OF THE CHEMICAL SOCIETY

Perkin Transactions II

Physical Organic Chemistry

CONTENTS

- 1115 Charge-transfer interaction between *N,N*-dimethylaniline and aromatic sulphonyl chlorides **Harimoorthi Kothandaraman** and **Naraganan Arumugasamy**
- 1117 Factors influencing kinetic isotope effects in some proton transfer reactions in aprotic solvents **Przemysław Pruszyński** and **Arnold Jarczewski**
- 1121 Cyclic voltammetric and phase transition studies of some liquid crystalline materials **Shunsuke Takenaka**, **Toshiro Hirohata**, **Ichiro Shimohara**, and **Shigekazu Kusabayashi**
- 1127 Theoretical investigation on the role of solvent in solvolytic reactions. Part 7. The enhancement of solvolysis of fluoromethane viewed by Voronoi polyhedra **Vera Bellagamba**, **Roberta Ercoli**, **Aldo Gamba**, and **Massimo Simonetta**
- 1133 Alumina-supported fluoride reagents for organic synthesis: optimisation of reagent preparation and elucidation of the active species **Takashi Ando**, **Stephen J. Brown**, **James H. Clark**, **David G. Cork**, **Terukiyo Hanafusa**, **Junko Ichihara**, **Jack M. Miller**, and **Malcolm S. Robertson**
- 1141 Neutral hydrolysis of substituted phenyl trifluoroacetates in water-acetonitrile mixtures with low content of water **Helmi Neuvonen**
- 1147 Conformations and electronic structures of dibenzylideneacetone **Toshihiko Hoshi**, **Takeaki Kawashima**, **Jun Okubo**, **Masanori Yamamoto**, and **Hiroyasu Inoue**
- 1151 ^{13}C Relaxation studies of the structure and flexibility of the carboxylic ionophore lasalocid A **George R. Painter** and **William A. Gibbons**
- 1155 A general method for determining the anomeric configuration of *C*-furanoside derivatives: a ^1H nuclear magnetic resonance nuclear Overhauser effect study **Michael A. Bernstein**, **Howard E. Morton**, and **Yvan Guindon**
- 1165 Kinetics and mechanism of the nitrosation of *N*-acetyltryptophan and of the denitrosation of *N*-acetyl-*N*¹-nitrosotryptophan **Albino Castro**, **Emilia Iglesias**, **J. Ramón Leis**, **M. Elena Peña**, **José Vázquez Tato**, and **D. Lyn H. Williams**
- 1169 Radical reactions of carbohydrates. Part 6. An electron spin resonance study of the reaction of the hydroxyl radical with some lactones derived from sugars and with ascorbic acid **Mark Fitchett** and **Bruce C. Gilbert**
- 1179 An investigation of structure and conformation of thiophene-2-sulphonyl radicals **Angelo Alberti**, **Chrysostomos Chatgilialoglu**, and **Maurizio Guerra**
- 1183 Mononuclear heterocyclic rearrangements. Part 13. Substituent effects on the rearrangement of some *Z*-arylheterocycles of 3-benzoyl-5-phenyl-1,2,4-oxadiazole to 2-aryl-4-benzoylamino-5-phenyl-1,2,3-triazoles in benzene, dioxane, ethyl acetate, acetonitrile, and methanol **Vincenzo Frenna**, **Nicolò Vivona**, **Luciano Cannella**, **Giovanni Consiglio**, and **Domenico Spinelli**
- 1189 Prediction of tautomeric equilibria for *N*-arylamidines **Ewa D. Raczyńska**
- 1193 Cyclization of *N*-alkenyl-*o*-chloroanilides with organonickel(0) complexes: conformational analysis of 3-substituted oxindoles **J. Gonzalo Rodriguez**, **Laureano Canoira**, and **Fernando Temprano**
- 1197 Studies of ion molecule reactions using a multiple quadrupole mass spectrometer. Part 3. The reactions of alkenyl radical cations $\text{C}_n\text{H}_{2n}^+$ with alkenes **Alan L. Mitchell** and **John M. Tedder**

- 1205 Oxidation by cobalt(III) acetate. Part 10. Effects of ring substituents on the product distributions in the oxidation of β -methylstyrenes by cobalt(III) acetate in acetic acid **Takashi Morimoto, Masao Hirano, Kohki Echigoya, and Takafumi Sato**
- 1211 The reaction of *N*-alkylhydroxamic acids with sulphinyl chlorides **Malcolm R. Banks and Robert F. Hudson**
- 1217 Specific photoreactions of flavanones typical of n,π^* and π,π^* characters in lowest triplet states **Ryoka Matsushima and Katsuhisa Sakai**
- 1223 Solvent- and reagent-induced change of rate-limiting step in acid-catalysed α -halogenation of amidines with tetrahalogenomethanes **Stefan Löfås and Per Ahlberg**
- 1229 A correlation between half-wave and ionization potentials for indoles and indolizines **Martino Colonna, Lucedio Greci, Marino Poloni, Giancarlo Marrosu, Antonio Trazza, Francesco Paolo Colonna, and Giuseppe Distefano**
- 1233 Substituent and temperature effects on the reactions of benzylchlorocarbene with alcohol **Michael T. H. Liu and Ramasamy Subramanian**
- 1241 A rate and product study of the effect of solutes upon the solvolysis of benzyl toluene-*p*-sulphonate in aqueous trifluoroethanol **H. Maskill**
- 1247 Prototropic equilibria of some *Harmala* alkaloids in acid solutions: proton-induced fluorescence quenching of the monocations of harmaline and harmalol **Mannam Krishnamurthy and Sneh Kumar Dogra**
- 1253 The geometry of a steroid from quantum mechanical calculation: progesterone **Juan M. Adelantado and W. Graham Richards**
- 1255 The mechanism of thermal eliminations. Part 18. Relative rates of pyrolysis of 2-ethoxypyrazine, 3-ethoxypyridazine, 2- and 4-ethoxypyrimidine, 3-chloro-6-ethoxypyridazine, and 2-chloro-4-ethoxypyrimidine: the effect of the aza 'substituent' and π -bond order on the elimination rate **Nouria Al-Awadi and Roger Taylor**
- 1259 Reactions of electrophiles with bromocyclopropane; a nuclear decay study **Marcello Colosimo, Roberto Bucci, and Fabrizio Carnevalletti**
- 1265 Electrophilic aromatic reactivities *via* pyrolysis of esters. Part 21. σ^+ Values for thiazole: the high polarisability of thiazole, and the effect of hydrogen bonding on the reactivity of *N*-containing heterocycles **Ryan August, Carole Davis, and Roger Taylor**
- 1269 Laser flash photolysis electron spin resonance kinetic studies of homolytic reactions in solution **Jehan A. Baban, Jeffrey P. Goddard, and Brian P. Roberts**
- 1275 Fatty acids, Part 28. ^1H and ^{13}C nuclear magnetic resonance studies of 2,5-disubstituted C_{18} furanoid ester isomers **Marcel S. F. Lie Ken Jie, Jan Bus, Anneke Groenewegen, and Izaäk Sies**
- 1279 Protonation of alcohols by hydrogen bromide in dibromodifluoromethane; rates of proton exchange and alcohol basicity **John Emsley, Victor Gold, Frank Hibbert, and M. Jamil B. Jais**
- 1283 Kinetics of removal of the hydrogen-bonded proton from substituted 1-phenylazo-2-naphthols by hydroxide ion **Frank Hibbert, Rowena J. Sellens, and Gareth R. Simpson**
- 1289 The effects of the vinyl groups in reactions of the highly sterically hindered compound [tris(trimethylsilyl)methyl]divinylsilyl chloride **G. Adefikayo Ayoko and Colin Eaborn**
- 1295 Kinetics of deuterium isotope exchange between 2-methylpropane-2-thiol and propane-2-thiol in aprotic solvents **Andrzej Wawer**
- 1299 Modification of tube size and shape in a helical tubuland inclusion lattice formed by a new family of diol hosts: syntheses and crystal structures **Ian G. Dance, Roger Bishop, Stephen C. Hawkins, Tony Lipari, Marcia L. Scudder, and Donald C. Craig**
- 1309 Description and analyses of guest cavity size and shape in a new family of helical tubuland inclusion crystals **Ian G. Dance, Roger Bishop, and Marcia L. Scudder**
- 1319 Solvent effects on molecular interactions in 2-amino- and 3-amino-pyridine–molecular iodine–solvent systems **Irmina Uruska and Małgorzata Koschmidter**
- 1323 The second step of the $B_{\text{Ac}2}$ Mechanism for neutral esters: a theoretical study **J. Joaquín Maraver, Enrique Sánchez Marcos, and Juan Bertrán**
- 1327 Transmission of substituent effects through unsaturated systems. Part 6. Kinetics of reduction of β -substituted α,β -unsaturated ketones with sodium borohydride **Serge Geribaldi, Michèle Decouzon, Bernard Boyer, and Claude Moreau**
- 1331 Identification of the products of solvolysis of *N*-benzylpyridinium cations in the absence of nucleophiles **Alan R. Katritzky, Charles M. Marson, Jen-Luan Chen, Franciszek Saczewski, and Roy W. King**
- 1337 Cycloalkylmethyl radicals. Part 3. Dynamic stereochemistry of axial and equatorial cyclohexylmethyl and 4-alkylcyclohexylmethyl radicals **Keith U. Ingold and John C. Walton**

CONTENTS

- 1345 Electron spin resonance evidence for rapid cyclization of alkenyl radicals formed by readily occurring 1,5- and 1,6-hydrogen shifts in vinyl radicals **Bruce C. Gilbert** and **David J. Parry**
- 1357 Silicon–oxygen and acyl–oxygen bond cleavage in reactions of sterically hindered organosilicon carboxylates **G. Adefikayo Ayoko** and **Colin Eaborn**
- 1363 Preparation and some reactions of compounds of the type $(\text{Me}_3\text{Si})_2\text{C}(\text{SiMe}_2\text{OMe})(\text{SiMe}_2\text{X})$. Anchimeric assistance by the methoxy group **Abdulaziz I. Al-Wassil**, **Colin Eaborn**, and **M. Novella Romanelli**

AUTHOR INDEX

- Adelantado, Juan M., 1253
Ahlberg, Per, 1223
Al-Awadi, Nouria, 1255
Alberti, Angelo, 1179
Al-Wasil, Abdulaziz I., 1363
Ando, Takashi, 1133
Arumugasamy, Naraganan, 1115
August, Ryan, 1265
Ayoko, G. Adefikayo, 1289, 1357
Baban, Jehan A., 1269
Banks, Malcolm R., 1211
Bellagamba, Vera, 1127
Bernstein, Michael A., 1155
Bertrán, Juan, 1323
Bishop, Roger, 1299, 1309
Boyer, Bernard, 1327
Brown, Stephen J., 1133
Bucci, Roberto, 1259
Bus, Jan, 1275
Cannella, Luciano, 1183
Canoira, Laureano, 1193
Carnevalletti, Fabrizio, 1259
Castro, Albino, 1165
Chatgilialoglu, Chryssostomos, 1179
Chen, Jen-Luan, 1331
Clark, James H., 1133
Colonna, Francesco Paolo, 1229
Colonna, Martino, 1229
Colosimo, Marcello, 1259
Consiglio, Giovanni, 1183
Cork, David G., 1133
Craig, Donald C., 1299
Dance, Ian G., 1299, 1309
Davis, Carole, 1265
Decouzon, Michèle, 1327
Distefano, Giuseppe, 1229
Dogra, Sneh Kumar, 1247
Eaborn, Colin, 1289, 1357, 1363
Echigoya, Kohki, 1205
Emsley, John, 1279
Ercoli, Roberta, 1127
Fitchett, Mark, 1169
Frenna, Vincenzo, 1183
Gamba, Aldo, 1127
Geribaldi, Serge, 1327
Gibbons, William A., 1151
Gilbert, Bruce C., 1169, 1345
Goddard, Jeffrey P., 1269
Gold, Victor, 1279
Greci, Lucedio, 1229
Groenewegen, Anneke, 1275
Guerra, Maurizio, 1179
Guindon, Yvan, 1155
Hanafusa, Terukiyo, 1133
Hawkins, Stephen C., 1299
Hibbert, Frank, 1279, 1283
Hirano, Masao, 1205
Hirohata, Toshiro, 1121
Hoshi, Toshihiko, 1147
Hudson, Robert F., 1211
Ichihara, Junko, 1133
Iglesias, Emilia, 1165
Ingold, Keith U., 1337
Inoue, Hiroyasu, 1147
Jais, M. Jamil B., 1279
Jarczewski, Arnold, 1117
Katritzky, Alan R., 1331
Kawashima, Takeaki, 1147
King, Roy W., 1331
Koschmidder, Małgorzata, 1319
Kothandaraman, Harimoorthi, 1115
Krishnamurthy, Mannam, 1247
Kusabayashi, Shigekazu, 1121
Leis, J. Ramón, 1165
Lie Ken Jie, Marcel S. F. 1275
Lipari, Tony, 1299
Liu, Michael T. H., 1233
Löfås, Stefan, 1223
Maraver, J. Joaquín, 1323
Marcos, Enrique Sánchez, 1323
Marrosu, Giancarlo, 1229
Marson, Charles M., 1331
Maskill, H., 1241
Matsushima, Ryoka, 1217
Miller, Jack M., 1133
Mitchell, Alan L., 1197
Moreau, Claude, 1327
Morimoto, Takashi, 1205
Morton, Howard E., 1155
Neuvonen, Helmi, 1141
Okubo, Jun, 1147
Painter, George R., 1151
Parry, David J., 1345
Peña, M. Elena, 1165
Poloni, Marino, 1229
Pruszyński, Przemysław, 1117
Raczyńska, Ewa D., 1189
Richards, W. Graham, 1253
Roberts, Brian P., 1269
Robertson, Malcolm S., 1133
Rodriguez, J. Gonzalo, 1193
Romanelli, M. Novella, 1363
Saczewski, Franciszek, 1331
Sakai, Katsuhisa, 1217
Sato, Takafumi, 1205
Scudder, Marcia L., 1299, 1309
Sellens, Rowena J., 1283
Shimohara, Ichiro, 1121
Sies, Izaäk, 1275
Simonetta, Massimo, 1127
Simpson, Gareth R., 1283
Spinelli, Domenico, 1183
Subramanian, Ramasamy, 1233
Takenaka, Shunsuke, 1121
Tato, José Vázquez, 1165
Taylor, Roger, 1255, 1265
Tedder, John M., 1197
Temprano, Fernando, 1193
Trazza, Antonio, 1229
Uruska, Irmina, 1319
Vivona, Nicolò, 1183
Walton, John C., 1337
Wawer, Andrzej, 1295
Williams, D. Lyn H., 1165
Yamamoto, Masanori, 1147

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