

## JOURNAL OF THE CHEMICAL SOCIETY

## Perkin Transactions 2

## Physical Organic Chemistry

---

CONTENTS

- v Instructions for authors (1990)
- xxiii Refereeing procedure and policy
- 1 Kinetics of phase-transfer etherification reactions of *p*-chloronitrobenzene by alkoxides **Jaime de la Zerda Lerner, Sasson Cohen, and Yoel Sasson**
- 7 Resonance Raman spectroscopy of transition metal protoporphyrin IX dimethyl ester complexes and its interpretation in terms of d-orbital interaction **Lin-tao He, Tian-qian Lei, and Tian-lai Jiang**
- 11 Aromatic nucleophilic substitution reactions of oxime ethers with aliphatic primary and secondary amines in benzene **Ajay K. Jain, Vinod K. Gupta, and Anurag Kumar**
- 17 Photochemical generation of nickel(i) complexes and their reaction with hydrogen: nickel hydride catalysed hydrogenation of 1,5-cyclo-octadiene **Yuan L. Chow, Huali Li, and M. Su Yang**
- 25 Imines and derivatives. Part 23. Anomalous <sup>1</sup>H NMR spectrum of *N*-[1-(1-naphthyl)ethylidene]-1-phenyl-2-propylamine: conformation in solution, atropisomerism and an X-ray crystal structure **Thomas A. Hamor, W. Brian Jennings, Lee D. Proctor, Malcolm S. Tolley, Derek R. Boyd, and Teresa Mullan**
- 31 Formation of stable aryldisulphide ions in dimethylacetamide from the reaction of sulphur with thiolate ions **Meriem Benaïchouche, Gérard Bosser, Jacky Paris, Jacques Auger, and Vincent Plichon**
- 37 Nitrosation by alkyl nitrites. Part 6. Thiolate nitrosation **Hanif M. S. Patel and D. Lyn H. Williams**
- 43 Studies on clavulanic acid. Part 3. Catalysis of hydrolysis and aminolysis of clavulanic acid by metal chelates **Javier Martín, Rosa Méndez, Francisco Salto, and Manuel Castillo**
- 47 Effects of differing chirality on the hydrogen-bonding behaviour of di- and tri-peptide derivatives **Carola Griehl, Hans Jeschkeit, Ute Schilken, and Alfred Kolbe**
- 51 An STO-3G study of acyclic 1,2-ylides derived from iminium ions **Ronald Grigg, Lynda Wallace, and John O. Morley**
- 57 A combined DSC, X-ray diffraction, and molecular modelling study of chiral discrimination in the purification of enantiomeric mixtures of *cis*-permethrinic acid **Ferenc Faigl, Kálmán Simon, Antal Lopata, Éva Kozsda, Richárd Hargitai, Mátyás Czugler, Mária Acs, and Elemér Fogassy**
- 65 AM1 Study of a  $\beta$ -carboline set: structural properties and potential reactivity **Jose Hidalgo, Manuel Balon, Carmen Carmona, María Muñoz, Rafael R. Pappalardo, and Enrique Sanchez Marcos**
- 73 Physical organic studies on bimolecular reactions in reversed micelles: addition of cyanide ion to the *N*-methyl-3-carbamoylpyridinium ion in hexadecyltrimethylammonium bromide reversed micelles **Ayako Goto and Hiroshi Kishimoto**
- 79 Addition of cyanide ion to nicotinamide cations in acetonitrile. Formation of non-productive charge-transfer complexes **Johan F. J. Engbersen, Arie Koudijs, Hedwig M. Sleiderink, and Maurice C. R. Franssen**
- 85 Effects of a solid proton transfer on the <sup>13</sup>C,<sup>14</sup>N residual dipolar coupling in CPMAS NMR. Implications for the shape of the potential energy function **Alejandro C. Olivieri**
- 91 Carbon-13 nuclear magnetic resonance spectroscopy of 1-aryl-2,2-dibromocyclopropanes **Shaw-Tao Lin and Mei-Ling Lin**

- 97 NMR Relaxation studies on testosterone in solution. Computer-assisted analysis of  $^{13}\text{C}$   $T_1$  data measured at different temperatures **Hideaki Fujiwara, Yong-Zhong Da, Douwan Zheng, Yoshio Sasaki, Yoshio Takai, and Masami Sawada**
- 103 Dienone-phenol rearrangements of 3-acylcyclohexa-2,5-dienones: kinetics and mechanism **Gary Goodyear and Anthony J. Waring**
- 109 Investigation of electronic effects in diazine rings. Linear free energy relationships in the reactivity of diazine mono- and di-carboxylates **Milica Mišić-Vuković, Mirjana Radojković-Veličković, and Vojislav Jezdić**
- 113 Secondary spin adducts derived from aryl radicals and 2-methyl-2-nitrosopropane. Radical chromato-ESR spectroscopy and numerical decoupling analysis studies **Koichi Nozaki, Akira Naito, Hiroyuki Hatano, and Satoshi Okazaki**
- 121 Condensation reactions of tetracyanoethylene and its monoanion promoted by Lewis acids: synthesis and crystal, molecular, and electronic structure of a novel heterocycle, the 2,3,6,7-tetracyano-5-(tricyanoethenylimino)-3*H*-1,4,7b-triazabenzo[*i,j*]pentalenide ion **Mario Bonamico, Vincenzo Fares, Alberto Flamini, and Patrizia Imperatori**
- 127 NMR Studies on the conformation of aromatic cyclodipeptides with two non-identical *L*-aromatic amino-acid residues in solution: cyclo-[*L*-5(MeO)Trp-*L*-Tyr(Me)] **M. Sheinblatt**
- 133 A multinuclear NMR study of derivatives of thiazolidine **Didier Barbry, Guy Ricart, and Daniel Couturier**
- 141 Asymmetric nitrogen. Part 75. Stereochemistry of diaziridinyl radicals **Gennady V. Shustov, Alexandr I. Prokofyev, Sergei N. Denisenko, Alexandr Yu. Shibayev, Yury V. Puzanov, and Remir G. Kostyanovsky**
- 147 Unimolecular reactions of ionised ethers **Richard D. Bowen and Allan Maccoll**
- 157 The influence of borate buffers on the hydration rate of cyanohydrins: evidence for an intramolecular mechanism **Jacqueline Jammot, Robert Pascal, and Auguste Commeyras**
- 163 The rearrangement of chrysanthemyl alcohol in fluorosulphuric acid **Mirza Azam Baig, Derek V. Banthorpe, Graham Carr, and David Whittaker**
- 169 Kinetics of the detritiation of carbon acids containing more than one exchangeable site **Erwin Buncel, John P. Davey, Gabriel J. Buist, John R. Jones, and Keith D. Perring**
- 175 A study of titanium and magnesium chloride complexes with dialkyl phthalates by solid state  $^{13}\text{C}$  CP MAS NMR spectroscopy **Nigel J. Clayden and Peter J. V. Jones**
- 179 Kinetics and mechanism of the hydrolysis of *N*-methyl-*N*-nitroamides in aqueous sulphuric acid **Brian C. Challis, Eduarda Rosa, Jim Iley, and Fátima Norberto**
- 185 Competition between nucleophilic attack and electron transfer in the reaction of indoleione imine *N*-oxides with primary aromatic amines **Patricia Carloni, Lucedio Greci, Pierluigi Stipa, Angelo Alberti, Corrado Rizzoli, Paolo Sgarabotto, and Fanco Ugozzoli**
- 195 A theoretical treatment of solvent effects on the tautomeric equilibria of five-membered rings with two heteroatoms **Mati M. Karelson, Alan R. Katritzky, Miroslaw Szafran, and Michael C. Zerner**
- 203 Structural studies of arylazo and arylimino compounds.  $^{15}\text{N}$  NMR and X-ray crystallographic studies of azo-hydrazo tautomerism **Joseph A. Connor, Richard J. Kennedy, Helen M. Dawes, Michael B. Hursthouse, and Nigel P. C. Walker**
- 209 Structural aspects of the protonation of small cages. Preparation of the new aza-cage 12,17-dimethyl-1,9,12,17-tetra-azabicyclo[7.5.5]nonadecane (*L*). Thermodynamic studies on solution equilibria. Crystal structures of  $[\text{H}_2\text{L}][\text{CoCl}_4]$  and  $[\text{H}_2\text{L}1][\text{CoCl}_4]$  salts **Andrea Bencini, Antonio Bianchi, Angela Borselli, Mario Ciampolini, Mauro Micheloni, Paola Paoli, Barbara Valtancoli, Paolo Dapporto, Enrique Garcia-España, and Jose Antonio Ramirez**

## AUTHOR INDEX

- Ács, Mária, 57  
Alberti, Angelo, 185  
Auger, Jacques, 31  
Baig, Mirza Azam, 163  
Balon, Manuel, 65  
Banthorpe, Derek V., 163  
Barbry, Didier, 133  
Benaïchouche, Meriem, 21  
Bencini, Andrea, 209  
Bianchi, Antonio, 209  
Bonamico, Mario, 121  
Borselli, Angela, 209  
Bossler, Gérard, 31  
Bowen, Richard D., 147  
Boyd, Derek R., 25  
Buist, Gabriel J., 169  
Buncel, Erwin, 169  
Carloni, Patricia, 185  
Carmona, Carmen, 65  
Carr, Graham, 163  
Castillo, Manuel, 43  
Challis, Brian C., 179  
Chow, Yuan L., 17  
Ciampolini, Mario, 209  
Clayden, Nigel J., 175  
Cohen, Sasson, 1  
Commeyras, Auguste, 157  
Connor, Joseph A., 203  
Couturier, Daniel, 133  
Czugler, Mátyás, 57  
Dapporto, Paolo, 209  
Davey, John P., 169  
Dawes, Helen M., 203  
Da, Yong-Zhong, 97  
de la Zerda Lerner, Jaime, 1  
Denisenko, Sergei N., 141  
Engbersen, Johan F. J., 79  
Faigl, Ferenc, 57  
Fares, Vincenzo, 121  
Flamini, Alberto, 121  
Fogassy, Elemér, 57  
Franssen, Maurice C. R., 79  
Fujiwara, Hideaki, 97  
Garcia-España, Enrique, 209  
Goodyear, Gary, 103  
Goto, Ayako, 73  
Greci, Lucedio, 185  
Griehl, Carola, 47  
Grigg, Ronald, 51  
Gupta, Vinod K., 11  
Hamor, Thomas A., 25  
Hargitai, Richárd, 57  
Hatano, Hiroyuki, 113  
He, Lin-ao, 7  
Hidalgo, Jose, 65  
Hursthouse, Michael B., 203  
Iley, Jim, 179  
Imperatori, Patrizia, 121  
Jain, Ajay K., 11  
Jammot, Jacqueline, 157  
Jennings, W. Brian, 25  
Jeschkeit, Hans, 47  
Jezdić, Vojislav, 109  
Jiang, Tian-lai, 7  
Jones, John R., 169  
Jones, Peter J. V., 175  
Karelson, Mati M., 195  
Katritzky, Alan R., 195  
Kennedy, Richard J., 203  
Kishimoto, Hiroshi, 73  
Kolbe, Alfred, 47  
Kostyanovsky, Remir G., 141  
Koudijs, Arie, 79  
Kozsda, Éva, 57  
Kumar, Anurag, 11  
Lei, Tian-qian, 7  
Li, Huali, 17  
Lin, Mei-Ling, 91  
Lin, Shaw-Tao, 91  
Lopata, Antal, 57  
Maccoll, Allan, 147  
Marcos, Enrique Sanchez, 65  
Martín, Javier, 43  
Méndez, Rosa, 43  
Michelsoni, Mauro, 209  
Mišić-Vuković, Milica, 109  
Morley, John O., 51  
Mullan, Teresa, 25  
Muñoz, Maria, 65  
Naito, Akira, 113  
Norberto, Fátima, 179  
Nozaki, Koichi, 113  
Okazaki, Satoshi, 113  
Olivieri, Alejandro C., 85  
Paoli, Paola, 209  
Pappalardo, Rafael R., 65  
Paris, Jacky, 31  
Pascal, Robert, 157  
Patel, Hanif M. S., 37  
Perring, Keith D., 169  
Plichon, Vincent, 31  
Proctor, Lee D., 25  
Prokofyev, Alexandr I., 141  
Puzanov, Yury V., 141  
Radojković-Veličković, Mirjana, 109  
Ramirez, Jose Antonio, 209  
Ricart, Guy, 133  
Rizzoli, Corrado, 185  
Rosa, Eduarda, 179  
Salto, Francisco, 43  
Sasaki, Yoshio, 97  
Sasson, Yoel, 1  
Sawada, Masami, 97  
Schilken, Ute, 47  
Sgarabotto, Paolo, 185  
Sheinblatt, M., 127  
Shibayev, Alexandr Yu., 141  
Shustov, Gennady V., 141  
Simon, Kálmán, 57  
Sleiderink, Hedwig M., 79  
Stipa, Pierluigi, 185  
Szafran, Miroslaw, 195  
Takai, Yoshio, 97  
Tolley, Malcolm S., 25  
Ugozzoli, Fanco, 185  
Valtancoli, Barbara, 209  
Walker, Nigel P. C., 203  
Wallace, Lynda, 51  
Waring, Anthony J., 103  
Whittaker, David, 163  
Williams, D. Lyn H., 37  
Yang, M. Su, 17  
Zerner, Michael C., 195  
Zheng, Douwan, 97

---

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

