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Physical Organic Chemistry

CONTENTS

1281 Mechanisms of peroxide decomposition. An ESR study of the reactions of the peroxomonosulphate anion ($HOOSO_3^-$) with Ti^{III}, Fe^{II}, and α-oxygen-substituted radicals **Bruce C. Gilbert** and **the late Jonathan K. Stell**

1289 Mononuclear heterocyclic rearrangements. Effect of the structure of the side chain on the reactivity. Part 1. Rearrangement of some 3-arylureines of 5-phenyl-1,2,4-oxadiazole into 1-aryl-3-benzoylamino-1,2,4-triazolin-5-ones in acetonitrile, benzene, and dioxane–water **Vincenzo Frenna, Domenico Spinelli,** and **Giovanni Consiglio**

1297 Monomer–dimer solution equilibria of 2,4,6-trialkylnitrosobenzenes and 2,4,6-trialkylnitrosobenzene/nitrosobenzene mixtures. A study using one- and two-dimensional NMR techniques **Keith G. Orrell, David Stephenson,** and **James H. Verlaque**

1305 ESR and ENDOR spectroscopy of furan radical cations obtained by cyclisation of 1,4-diketones in electrophilic media **M. Celina R. L. R. Lazana, M. Luisa T. M. B. Franco,** and **Bernardo J. Herold**

1311 Inhibition of hydrolysis of 'normal' zinc(II) *O,O'*-di-isopropyl dithiophosphate by the 'basic' form **Alan J. Burn, Sharwan K. Dewan, Ian Gosney,** and **Paul S. G. Tan**

1317 Kinetics of the reaction of *p*-dinitrobenzene with cyanide in dimethylformamide **Alexandra Sauer, Fritz Wasgestian,** and **Beate Barabasch**

1321 Mechanism of isomerization of 1,2,3,4-tetrahydroisoquinoline to 5,6,7,8-tetrahydroisoquinoline over Raney nickel **Hiroshi Okazaki** and **Kiyotaka Onishi**

1329 Transmission of polar effects. Part 20. Ionisation and esterification, with diazodiphenylmethane, of a series of 8-(2-substituted phenyl)-1-naphthoic and 2- and 4-(8-substituted 1-naphthyl)benzoic acids **Keith Bowden** and **Khalaf D. F. Ghadir**

1333 Transmission of polar effects. Part 21. Alkaline hydrolysis of the 2'- and 4'-substituted 2-methoxycarbonyldiphenylacetylenes and (*Z*)-2'- and -4'-substituted 2-methoxycarbonylstilbenes and the ionisation and esterification, with diazodiphenylmethane of the acids of the latter series **Keith Bowden** and **Khalaf D. F. Ghadir**

1339 Electronic and ring current structure of phenalenyl ions **Ingmar Sethson, Dan Johnels, Ulf Edlund,** and **Andrzej Sygula**

1343 A new method for a kinetic study of reactions between di-isocyanates and alcohols. Part 1. Symmetrical di-isocyanates **Adrian A. Caraculacu, Ion Agherghinei, Mariana Gaspar,** and **Cristina Prisacariu**

1349 ^1H Nuclear magnetic resonance spectra and conformations of some secondary deoxyalditols in deuterium oxide **David Lewis**

1353 Electrochemical investigations on nitro-substituted hydrazono compounds **Rajeev Jain, D. D. Agarwal,** and **R. K. Shrivastava**

1359 Reaction products of benzimidazole with tetracyanoethylene. Mechanism of formation and ^{13}C NMR spectroscopy of the anions $C_{16}H_5N_8^-$, dicyano(3,4-dicyano-5-benzimidazol-1-yl-2*H*-pyrrol-2-ylideneamino)methanide (**1**) and $C_{18}H_4N_9^-$, 1,2,4,5-tetracyano-3,6,7,12,13-penta-aza-5*H*-indeno[1,2-*d*]-acenaphthylen-5-ide (**2**). Crystal and molecular structure of their tetraphenylarsonium salts **Mario Bonamico, Vincenzo Fares, Alberto Flamini, Patrizia Imperatori,** and **Nicola Poli**

1365 The effects of zwitterionic surfactant systems upon aromatic nucleophilic substitution **Antonio Cipiciani** and **Stefania Primieri**

1369 Kinetics and mechanism of the oxidation of the calcium complex of ethylenediaminetetra-acetic acid by perbenzoic acids **D. Martin Davies, Roland M. Jones, James R. Savage,** and **J. Oakes**

1371 Secondary radical formation and electron spin polarization in systems involving phosphonyl radicals **Keith A. McLauchlan** and **Nigel J. K. Simpson**

1379 Linear solvation-energy relationships: solvolytic reactions of t-butyl bromide and t-butyl iodide in hydroxylic solvents **Raquel M. C. Gonçalves, Ana M. N. Simões,** and **Lidia M. P. C. Albuquerque**

1385 Kinetics and mechanism of a chemiluminescent clock reaction based on the horseradish peroxidase catalysed oxidation of luminol by hydrogen peroxide **Thomas E. G. Candy, Martin Hodgson,** and **Peter Jones**

1389 The temperature- and viscosity-dependent photostationary *E*/*Z* ratio in triplet-sensitized photoisomerization of cyclo-octene **Yoshihisa Inoue, Noritsugu Yamasaki, Akira Tai, Yoshihiko Daino, Tatsuya Yamada,** and **Tadao Hakushi**

1395 Structural studies on optical resolution *via* diastereoisomeric salt formation. Part 2. The conformational flexibility of (*S*)-2-benzylaminobutan-1-ol in enantiomer separation for permethrinic acids **Kálmán Simon, Éva Kozsda, Zsolt Böcskei, Ferenc Faigl, Elemér Fogassy,** and **Günther Reck**

1401 Micellar effects upon the reaction of azide ion with *N*-alkyl-2-chloropyridinium ions **Hamad A. Al-Lohedan**

1407 The peroxidasic activity of the haem octapeptide microperoxidase-8 (MP-8): the kinetic mechanism of the catalytic reduction of H_2O_2 by MP-8 using 2,2′-azinobis-(3-ethylbenzothiazoline-6-sulphonate) (ABTS) as reducing substrate **Paul A. Adams**

1415 The kinetics and mechanism of aminolysis of isothiocyanates **Derek P. N. Satchell** and **Rosemary S. Satchell**

1421 Relative nucleophilicities of aryldisulphide and thiolate ions in dimethylacetamide estimated from their reaction rates with alkyl halides **Meriem Benaïchouche, Gérard Bosser, Jacky Paris,** and **Vincent Plichon**

1425 Synthesis and binding properties of amide-functionalised polyaza macrocycles **Ritu Kataky, Karen E. Matthes, Patrick E. Nicholson, David Parker,** and **Hans-J. Buschmann**

1433 Polymer-film formation on the surface of a cathodically polarized nickel electrode in the presence of 4-chlorostyrene **Guy Deniau, Gérard Lécayon, Pascal Viel, Gilbert Zalczer, Claude Boiziau, Geneviève Hennico,** and **Joseph Delhalle**

1445 Determination of structure and stereochemistry of tomentosic acid by X-ray crystallography. A novel mechanism for transformation of arjungenin to tomentosic acid **Shashi B. Mahato, Ashoke K. Nandy, Peter Luger,** and **Manuela Weber**

1451 Hydrogen bonding. Part 13. A new method for the characterisation of GLC stationary phases—the Laffort data set **Michael H. Abraham, Garry S. Whiting, Ruth M. Doherty,** and **Wendel J. Shuely**

1461 Relative acidity and basicity of amines in tetrahydrofuran and the influence of these factors on the carbonylation of lithium amides **Jorge J. P. Furlong, Elizabeth S. Lewkowicz,** and **Norma S. Nudelman**

1467 FTIR spectral study of intramolecular hydrogen bonding in thromboxane A_2 receptor antagonist S-145 and related compounds. Part 2. **Mamoru Takasuka, Masumi Yamakawa,** and **Mitsuaki Ohtani**

1481 Structural versatility of peptides from $C^{\alpha,\alpha}$-disubstituted glycines. Preferred conformation of the $C^{\alpha,\alpha}$-dibenzylglycine residue **Giovanni Valle, Marco Crisma, Gian Maria Bonora, Claudio Toniolo, Francesco Lelj, Vincenzo Barone, Franca Fraternali, Paul M. Hardy, Andrew Langran-Goldsmith,** and **Hernani L. S. Maia**

1489 α-D-glucopyranosyl-D-fructoses: distribution of furanoid and pyranoid tautomers in water, dimethyl sulphoxide, and pyridine. Studies on ketoses. Part 4. **Frieder W. Lichtenthaler** and **Stephan Rönninger**

Corrigenda

1499 The hydrolysis of azetidinyl amidinium salts. Part 1. The unimportance of strain release in the four-membered ring **Michael I. Page, Philip Webster,** and **Leon Ghosez**

1500 The hydrolysis of azetidinyl amidinium salts. Part 2. Substituent effects, buffer catalysis, and the reaction mechanism **Michael I. Page, Philip Webster,** and **Leon Ghosez**

AUTHOR INDEX

Abraham, Michael H., 1451
Adams, Paul A., 1407
Agarwal, D. D., 1353
Agherghinei, Ion, 1343
Albuquerque, Lidia M. P. C., 1379
Al-Lohedan, Hamad A., 1401
Barabasch, Beate, 1317
Barone, Vincenzo, 1481
Benaïchouche, Meriem, 1421
Böcskei, Zsolt, 1395
Boiziau, Claude, 1433
Bonamico, Mario, 1359
Bonora, Gian Maria, 1481
Bosser, Gérard, 1421
Bowden, Keith, 1329, 1333
Burn, Alan J., 1311
Buschmann, Hans-J., 1425
Candy, Thomas E. G., 1385
Caraculacu, Adrian A., 1343
Cipiciani, Antonio, 1365
Consiglio, Giovanni, 1289
Crisma, Marco, 1481
Daino, Yoshihiko, 1389
Davies, D. Martin, 1369
Delhalle, Joseph, 1433
Deniau, Guy, 1433
Dewan, Sharwan K., 1311
Doherty, Ruth M., 1451
Edlund, Ulf, 1339
Faigl, Ferenc, 1395
Fares, Vincenzo, 1359
Flamini, Alberto, 1359
Fogassy, Elemér, 1395
Franco, M. Luisa T. M. B., 1305
Fraternali, Franca, 1481
Frenna, Vincenzo, 1289
Furlong, Jorge J. P., 1461
Gaspar, Mariana, 1343
Ghadir, Khalaf D. F., 1329, 1333
Ghosez, Leon, 1499
Gilbert, Bruce C., 1281
Gonçalves, Raquel M. C., 1379
Gosney, Ian, 1311
Hakushi, Tadao, 1389
Hardy, Paul M., 1481
Hennico, Geneviève, 1433
Herold, Bernardo J., 1305
Hodgson, Martin, 1385
Ikefuji, Yoshio, 1321
Imperatori, Patrizia, 1359
Inoue, Yoshihisa, 1389
Jain, Rajeev, 1353
Johnels, Dan, 1339
Jones, Peter, 1385
Jones, Roland M., 1369
Kataky, Ritu, 1425
Kozsda, Éva, 1395
Langran-Goldsmith, Andrew, 1481
Lazana, M. Celina R. L. R., 1305
Lécayon, Gérard, 1433
Lelj, Francesco, 1481
Lewis, David, 1349
Lewkowicz, Elizabeth S., 1461
Lichtenthaler, Frieder W., 1489
Luger, Peter, 1445
Mahato, Shashi B., 1445
Maia, Hernani L. S., 1481
Matthes, Karen E., 1425
McLauchlan, Keith A., 1371
Nandy, Ashoke K., 1445
Nicholson, Patrick E., 1425
Nudelman, Norma S., 1461
Oakes, J., 1369
Ohtani, Mitsuaki, 1467
Okazaki, Hiroshi, 1321
Onishi, Kiyotaka, 1321
Orrell, Keith G., 1297
Page, Michael I., 1499
Paris, Jacky, 1421
Parker, David, 1425
Plichon, Vincent, 1421
Poli, Nicola, 1359
Primieri, Stefania, 1365
Prisacariu, Cristina, 1343
Reck, Günther, 1395
Rönninger, Stephan, 1489
Satchell, Derek P. N., 1415
Satchell, Rosemary S., 1415
Sauer, Alexandra, 1317
Savage, James R., 1369
Sethson, Ingmar, 1339
Shrivastava, R. K., 1353
Shuely, Wendel J., 1451
Simões, Ana M. N., 1379
Simon, Kálmán, 1395
Simpson, Nigel J. K., 1371
Spinelli, Domenico, 1289
Stell, Jonathan K., 1281
Stephenson, David, 1297
Sygula, Andrzej, 1339
Tai, Akira, 1389
Takasuka, Mamoru, 1467
Tamura, Ryuji, 1321
Tan, Paul S. G., 1311
Toniolo, Claudio, 1481
Valle, Giovanni, 1481
Verlaque, James H., 1297
Viel, Pascal, 1433
Wasgestian, Fritz, 1317
Weber, Manuela, 1445
Webster, Philip, 1499
Whiting, Garry S., 1451
Yamada, Tatsuya, 1389
Yamakawa, Masumi, 1467
Yamasaki, Noritsugu, 1389
Zalczer, Gilbert, 1433

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

Submission of Journal Manuscripts on Floppy Disks

Summary
There have been various requests by authors to submit manuscripts on floppy disks to a journal for publication. This note details some of the investigations that the RSC has carried out on this subject, some of the problems identified, and some future actions.

Introduction
Many authors who use word processors to prepare papers for submission to *J. Chem. Soc.* consider that the information on floppy disk should be readily usable for the production of journals. The potential benefits perceived by the author include reduced proof-reading requirements, reduced costs, and faster publication. At present however, from the editorial viewpoint, the use of author disks is fraught with many difficulties. There is a need to overcome many technical and organisational problems before the information on floppy disks could be used routinely and efficiently in the production of journals.

The Problems
If the information is to be used for typesetting, the RSC needs to be able to translate word-processor formatted documents into the corresponding format with the correct style for the particular journal with footnotes, chemical formulae, diagrams, and other figures inserted at the appropriate places for the typesetter.

In 1989 the RSC surveyed about 1 000 authors concerning submission of papers on floppy disks to help in assessing the feasibility of accepting such data. About 500 replies were received. The major results were:

— 85% used PCs and associated word-processing software for the preparation of papers submitted to RSC journals.

— 61% of respondents would be willing to submit papers on floppy disk and 45% would be willing to use electronic mail.

— 49% of respondents would be willing to modify their style of writing of papers to conform to RSC requirements of layout or representation of special characters

— Three main types of computer were used by respondents, IBM PCs and compatibles (43%), Apple Macintosh (26%) and NEC 9800 series (15% overall, 73% of Japanese respondents).

— Over twenty different word processor software packages were mentioned by two or more authors.

— 67% of Macintosh owners use ChemDraw for chemical structure input.

— There were concerns that electronic submission might become the only form of submission in the future.

From these results it is apparent that the RSC would need to be able to accept information from a wide range of word processors running on a variety of different computers if it were to be able to take papers from all authors in their native format. The RSC would then need to convert these papers into a standard format for editorial work and typesetting without loss of information.

Word processors are becoming more sophisticated. They allow much more tailoring by the end user of various options that can have an effect on the stored document, *e.g.*, different typefaces that have different character sets, complicated formatting options. Different national versions can result in the same computer code being used to represent different characters. At the same time, many word processors have only restricted character-set capabilities when compared with the typesetting systems used for setting journals. Authors are often unable to obtain the full range of characters needed for their papers and use alternatives to obtain a desired visual result (or even write the characters in on the printed manuscript). Authors also use incorrect characters [*e.g.*, superscript letter o (°) for the degree symbol (°), hyphens for hyphen (-), minus sign (−), en rule (–) and em rule (—) characters]. The presentation of tabular matter, and mathematics causes many difficulties in terms of both the character set and layout.

When authors write papers, they normally lay out the text and other matter in a format that gives the required visual effect and it is easy to read when printed on their printer. This may result in the addition of extra hyphens used as end-of-line breaks within text which are not required in the final output.

Unfortunately, the requirements of the RSC are different if it is going to use the information for typesetting. The layout coding used by the authors is normally not readily usable by the RSC (this is particularly the case for tabular matter and mathematics). The RSC requirements are likely to include the need for identifiers explicitly marking various sections of text (*e.g.*, title, authors, addresses, footnotes). Formatting to give a visually attractive appearance is not required.

The RSC handles several thousand manuscripts each year. If it is to be able to handle floppy disks of data efficiently then the disks would need to have uniformity of style and content. This would allow each disk to be handled in a standard manner rather than each as an individual item with its own requirements. Ideally the data would be presented in a standard codified format that would allow various items and sections of information to be readily identifiable.

Most chemical papers contain graphical matter, *e.g.*, chemical structures, diagrams, halftones, colour plates. Ideally, these also need to be provided in an acceptable machine-readable format or mechanisms need to be set up to allow their integration into documents.

A Possible Route to Accepting Floppy Disk Information
It should be possible to overcome most, if not all, of these problems in the longer term. The implementation of all the necessary systems is unlikely to occur quickly but various steps will be taken in order to move forward. In the shorter term there is a need to gain more practical experience of problems and solutions by building up case histories.

The RSC survey indicated that a few, widely used word-processor formats (*e.g.*, MacWrite, Microsoft Word, WordPerfect, WordStar) are used by a high percentage of authors. There are a few common standards in existence for file interchange (*e.g.*, IBM, DCA, Microsoft RTF) to convert data into a uniform format for further processing. Other word processors have facilities to convert into these formats or into ASCII format which could be accepted by the RSC. Detailed guidelines are being formulated to assist authors in preparing papers in a codified style and to help the editorial processing of the information.

These guidelines will be used in an experiment, with an invited group of authors in the first instance, to help identify the problems and solutions at a more detailed level.

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