

## JOURNAL OF THE CHEMICAL SOCIETY

## Perkin Transactions 2

## Physical Organic Chemistry

---

CONTENTS

- 353 Synthesis of chiral square planar cobalt(III) complexes and catalytic asymmetric epoxidations with these complexes **Shigeko Ozaki, Hisashi Mimura, Naoko Yasuhara, Masaichiro Masui, Yuriko Yamagata, Keniich Tomita, and Terrence J. Collins**
- 361 The photodecomposition of cyclic *N*-bromo imides: evidence for stereoelectronic control in intramolecular hydrogen transfer in imidyl radicals **Yuan L. Chow, Da-Chuan Zhao, Masayuki Kitadani, K. Somasekharen Pillay, Yousry M. A. Naguib, and Tong-Ing Ho**
- 369 The modern VB descriptions of  $\text{CH}_2$ ,  $\text{CH}_2^+$ ,  $\text{SiH}_2$ , and  $\text{SiH}_2^+$  **Stuart C. Wright, David L. Cooper, Maurizio Sironi, Mario Raimondi, and Joseph Gerratt**
- 375 Experimental charge maps in di-activated carbanions: access to charge demands of primary electron-withdrawing functionalities **Emma Barchiesi, Silvia Bradamante, Raffaella Ferraccioli, and Giorgio A. Pagani**
- 385 Spectral properties and isomerism of nitro enamines. Part 2. 3-Amino-2-nitrocrotonic esters **Jose Luis Chiara, Antonio Gómez-Sánchez, Enrique Sánchez Marcos, and Juana Bellanato**
- 393 The metal-ion-promoted water- and hydroxide-ion-catalysed hydrolysis of amides **Theodore J. Przystas and Thomas H. Fife**
- 401  $^1\text{H}$  and  $^{13}\text{C}$  NMR relaxation investigation of the calcium complex of  $\beta$ -alanyl-L-histidine (carnosine) in aqueous solution **Elena Gaggelli and Gianni Valensin**
- 407 The differential method in chemical kinetics **José M. Leal and Pedro L. Domingo**
- 413 Oxidation reactions of thiodiglycolic acid: a pulse radiolysis study **Hari Mohan and Pervaje N. Moorthy**
- 417 An *ab initio* SCF MO study of the electronic structure of 7-germanorbornadiene and 7-stannanorbornadiene: two molecules predicted to have an inverted sequence of  $\pi$  levels **Michael N. Paddon-Row, Stephen S. Wong, and Kenneth D. Jordan**
- 425 A cautionary comment on the use of orthogonal localized molecular orbitals for the quantitative analysis of through-space and through-bond orbital interactions **Michael N. Paddon-Row, Stephen S. Wong, and Kenneth D. Jordan**
- 431 Stereochemical dependence of  $^2J_{\text{PNC}}$  coupling constants in *N*-dialkyloxyphosphoryl amino acids and other phosphoramidate compounds **Chu-Biao Xue, Ying-Wu Yin, Yu-Fen Zhao, and Jia-Zhen Wu**
- 435 Kinetics and mechanism of aminolysis of phthalimide and *N*-substituted phthalimides. Evidence for the occurrence of intramolecular general acid-base catalysis in the reactions of ionized phthalimides with primary amines **Mohammad Niyaz Khan**
- 445 Effects of anionic micelles on the intramolecular general-base-catalysed hydrazinolysis and hydrolysis of phenyl salicylate. Evidence for a porous cluster micelle **Mohammad Niyaz Khan**
- 459 A test of electrostatic and reaction-field theories: equilibria in isodesmic reactions of some chlorobenzenes **Zdeněk Friedl, Ján Biroš, and Otto Exner**
- 465 Conformational and electronic interaction studies of  $\alpha$ -substituted carbonyl compounds. Part 9.  $\omega$ -Hetero-substituted acetophenones **Paulo R. Olivato, Sandra A. Guerrero, Yoshiyuki Hase, and Roberto Rittner**

- 473 Collision-induced dissociations of deprotonated phosphorus esters. Specific proton transfer accompanying fragmentation **Richard A. J. O'Hair, John H. Bowie, and Roger N. Hayes**
- 479 Formation and reactions of bis(phosphino)succinic anhydrides **Johannes A. van Doorn, John H. G. Frijns, and Nico Meijboom**
- 487 Rearrangements of some polycyclic hydroxy ketones in strong protic acids **Owen S. Mills, C. Ian F. Watt, and Steven M. Whitworth**
- 499 The photolysis of 1-benzyloxy-2-pyridone and its methyl derivatives. Correlation with  $^1\text{H}$  NMR-derived ground-state conformation **Tadamitsu Sakurai, Yasukuni Murakata, and Hiroyasu Inoue**

## AUTHOR INDEX

- Barchiesi, Emma, 375  
Bellanato, Juana, 385  
Biroš, Jan, 459  
Bowie, John H., 473  
Bradamante, Silvia, 375  
Chiara, Jose Luis, 385  
Chow, Yuan L., 361  
Collins, Terrence J., 353  
Cooper, David L., 369  
Domingo, Pedro L., 407  
Exner, Otto, 459  
Ferraccioli, Raffaella, 375  
Fife, Thomas H., 393  
Friedl, Zdeněk, 459  
Frijns, John H. G., 479  
Gaggelli, Elena, 401
- Gerratt, Joseph, 369  
Gómez-Sánchez, Antonio, 385  
Guerrero, Sandra A., 465  
Hase, Yoshiyuki, 465  
Hayes, Roger N., 473  
Ho, Tong-Ing, 361  
Inoue, Hiroyasu, 499  
Jordan, Kenneth D., 417, 425  
Khan, Mohammad Niyaz, 435, 445  
Kitadani, Masayuki, 361  
Leal, José M., 407  
Marcos, Enrique Sánchez, 385  
Masui, Masaichiro, 353  
Meijboom, Nico, 479  
Mills, Owen S., 487
- Mimura, Hisashi, 353  
Mohan, Hari, 413  
Moorthy, Pervaje N., 413  
Murakata, Yasukuni, 499  
Naguib, Yousry M. A., 361  
O'Hair, Richard A. J., 473  
Olivato, Paulo R., 465  
Ozaki, Shigeo, 353  
Paddon-Row, Michael N., 417, 425  
Pagani, Giorgio A., 375  
Pillay, K. Somasekharen, 361  
Przystas, Theodore J., 393  
Raimondi, Mario, 369  
Rittner, Roberto, 465  
Sakurai, Tadimitsu, 499
- Sironi, Maurizio, 369  
Tomita, Keniich, 353  
Valensin, Gianni, 401  
van Doorn, Johannes A., 479  
Watt, C. Ian F., 487  
Whitworth, Steven M., 487  
Wong, Stephen S., 417, 425  
Wright, Stuart C., 369  
Wu, Jia-Zhen, 431  
Xue, Chu-Biao, 431  
Yamagata, Yuriko, 353  
Yasuhara, Naoko, 353  
Yin, Ying-Wu, 431  
Zhao, Da-Chuan, 361  
Zhao, Yu-Fen, 431

---

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



# RSC Journals

## Use of Structure Diagrams produced with ChemDraw

The Society's Publications Production Department is now using the computer program ChemDraw to produce chemical structure diagrams, reaction schemes *etc.* for publication in the primary journals. Authors who use this program to produce diagrams for inclusion in submitted manuscripts are asked to take note of the settings given below, which are those employed by RSC production staff. It may be possible to make direct use of diagrams prepared according to these standards and submitted to us as laser printer output on good quality white paper. Single column (8.3 × 22.8 cm) layout is preferred, for flexibility; however, double column (17.1 × 22.8 cm) is acceptable.

---

### ChemDraw settings

---

Fixed length 18 pt

Line width 1 pt

Bold width 2.5 pt

Hash spacing 2.5 pt

Bond spacing 20% of width

Font: Helvetica 12 pt

Single width bold and dashed lines for stereochemistry

Page set-up 60% for preparation of drawings and printing

---

