

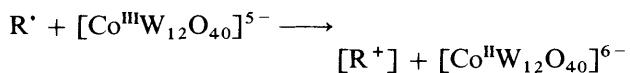


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## Communication

- 1261 Reactivity of  $[\text{Co}^{\text{III}}\text{W}_{12}\text{O}_{40}]^{5-}$  with organic radicals in aqueous solution. Evidence for an electron transfer mechanism

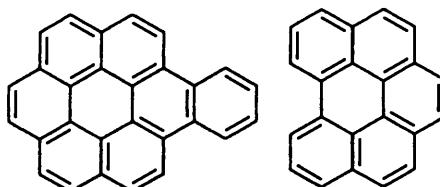
Enrico Baciocchi, Massimo Bietti and Steen Steenken



## Articles

- 1265 Protonation–oxidation manifold in large PAHs. Benzo[*a*]coronene and benzo[*ghi*]perylene; stable ion studies in superacid media and AM1 calculations

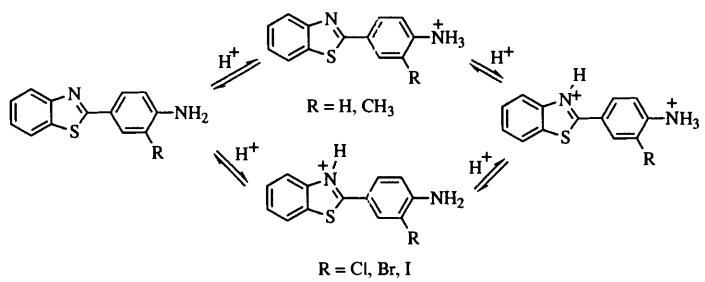
Kenneth K. Laali, John J. Houser and Maximilian Zander



Protonation and oxidation with  $\text{FSO}_3\text{H}-\text{SO}_2\text{ClF}$  and  $\text{CF}_3\text{SO}_3\text{H}-\text{SO}_2\text{ClF}$ ; AM1 energies and charges

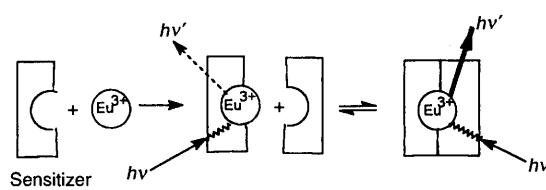
- 1271 Antitumour benzothiazoles. Part 4. An NMR study of the sites of protonation of 2-(4-aminophenyl)benzothiazoles

Richard T. Wheelhouse, Dong-Fang Shi, Derry E. V. Wilman and Malcolm F. G. Stevens



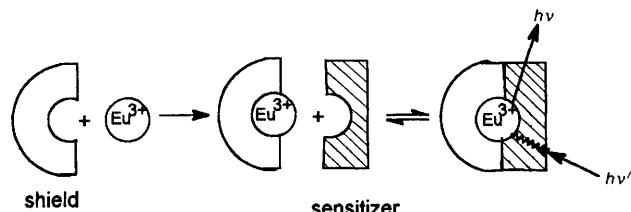
- 1275 Enhancement of luminescence of europium(III) ions in water by use of synergistic chelation. Part 1. 1:1 and 2:1 complexes**

John Coates, Peter G. Sammes and Richard M. West



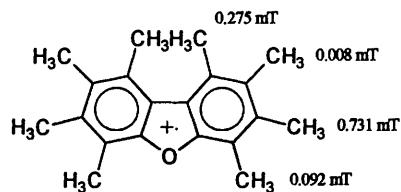
- 1283 Enhancement of luminescence of europium(III) ions in water by use of synergistic chelation. Part 2. 1:1:1 complexes**

John Coates, Peter G. Sammes and Richard M. West



- 1289 EPR spectra and redox properties of radical cations of dibenzofuran, methylated dibenzofurans and bidibenzofurans: relation to the chemistry of dibenzofuran radical cation**

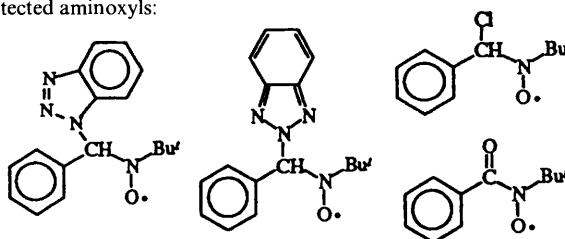
Lennart Eberson, Michael P. Hartshorn, Ola Persson, Finn Radner and Christopher J. Rhodes



- 1297 New insights on *N*-*tert*-butyl- $\alpha$ -phenylnitrone (PBN) as a spin trap. Part 1. Reaction between PBN and *N*-chlorobenzotriazole**

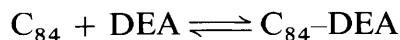
Patricia Carloni, Lennart Eberson, Lucedio Greci, Paolo Sgarabotto and Pierluigi Stipa

Detected aminoxyls:



- 1307 Ground state charge transfer complex of [84]fullerene and *N,N*-diethylaniline**

Christopher E. Bunker, Harry W. Rollins and Ya-Ping Sun



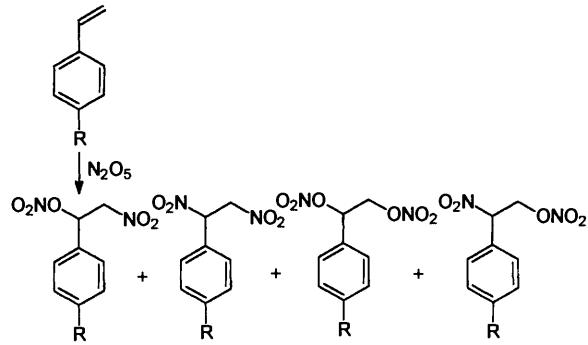
- 1311  $^{115}\text{Sn}$  NMR spectroscopy: a useful satellite pattern assignment method in gem-distannyl compounds**

Jean-Charles Meurice, Martine Vallier, Max Ratier, Jean-Georges Duboudin and Michel Pétraud

$^{115}\text{Sn}$  NMR INEPT spectroscopy is a useful tool for the simplification of polytin spectral analysis, where the mixing of homo- and hetero-nuclear satellite patterns presents some assignment difficulties

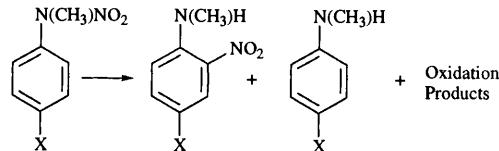
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Richard J. Lewis and Roy B. Moodie

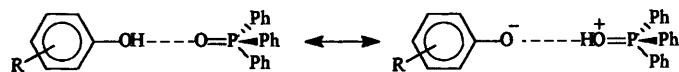
1321 Thermal decomposition of arylnitramines



Darren L. Naud

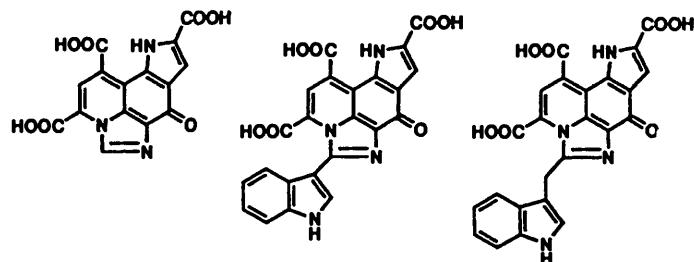
1325 Solution and solid state proton transfer from phenols to triphenylphosphine oxide studied by  $^1\text{H}$ ,  $^{13}\text{C}$  and  $^{31}\text{P}$  NMR spectroscopy

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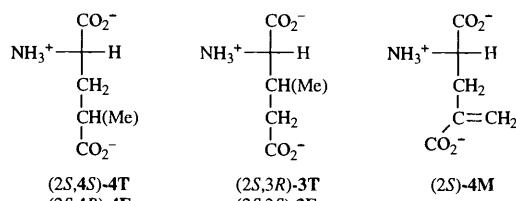
1331 Structure determination of reaction products of pyrroloquinolinequinone (PQQ) with L-tryptophan *in vitro* and their effects for microbial growth

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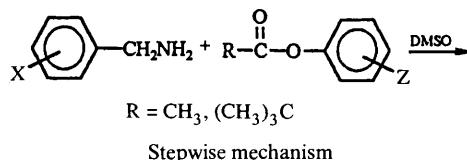
1337 Conformational analysis by NMR spectroscopy and molecular simulation in water of methylated glutamic acids, agonists at glutamate receptors

Nathalie Todeschi, Josyane Gharbi-Benarous, Francine Acher, Robert Azerad and Jean-Pierre Girault



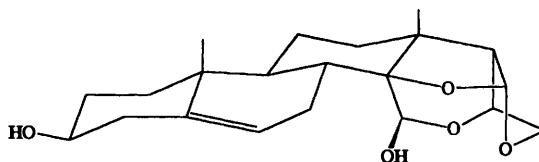
1353 Kinetics and mechanism of aminolysis of phenyl acetates and phenyl trimethylacetates in dimethyl sulfoxide

Han Joong Koh, Seung Il Kim, Byung Choon Lee and Ikchoon Lee



**1359 The structure of velutinol A is (15*R*,16*R*,20*S*)-14,16:15,20:16,21-triepoxy-15,16-seco-14 $\beta$ ,17 $\alpha$ -pregn-5-ene-3 $\beta$ ,15-diol. A combined quantitative Overhauser effect and molecular modelling study**

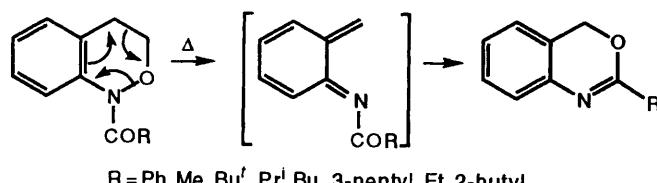
Edson S. Bento, João B. Calixto, Geoffrey E. Hawkes, Moacir G. Pizzolatti, Antonio E. G. Sant'Ana and Rosendo A. Yunes



The structure of velutinol A, a potent bradykinin antagonist, has been confirmed by the combined use of quantitative interproton NOEs and molecular mechanics and dynamics calculations

**1367 Rearrangement of *N*-acyl-3,4-dihydro-1*H*-2,1-benzoxazines to 2-substituted-4*H*-3,1-benzoxazines through a retro-Diels–Alder extrusion of formaldehyde**

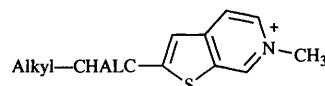
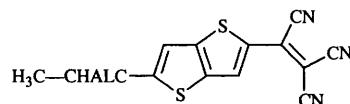
Stephen A. Glover, Katherine M. Jones, Ian R. McNee and Colleen A. Rowbottom



R = Ph, Me, Bu<sup>t</sup>, Pr<sup>t</sup>, Bu, 3-pentyl, Et, 2-butyl

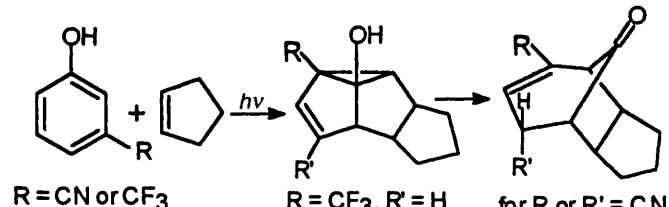
**1377 Chalcogens as electron donors for selected nonlinear optic phores**

Martin Blenkle, Peter Boldt, Christoph Bräuchle, Walter Grahn, Isabelle Ledoux, Heiko Nerenz, Stefan Stadler, Jürgen Wichern and Joseph Zysss



**1385 Formation of bicyclo[3.2.1]oct-2-en-8-ones and 1-hydroxydihydrosemibullvalenes from the *meta*-photocycloaddition of cyclopentene to phenols**

Andrew Gilbert and Damian T. Jones



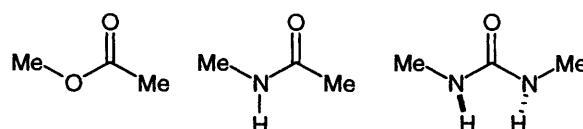
**1391 How does an alkoxy group at the benzylic carbon affect the transition state of the hydrogen-atom abstraction reaction? Correlation analysis of relative rates for 14 *p*-Y-substituted  $\alpha,\alpha$ -ethylene-dioxytoluenes**

Xi-Kui Jiang, Yu-Huang Zhang and William Fa-Xiang Ding



**1397 Study of electron densities of methyl acetate, *N*-methylacetamide and *N,N*-dimethylurea by quantum mechanical investigations. Part 1. Gas phase**

Bernd Kallies and Rolf Mitzner



The details of electron delocalization are studied

- 1403 Study of electron densities of methyl acetate, *N*-methylacetamide and *N,N'*-dimethylurea by quantum mechanical investigations. Part 2. Solvent models**

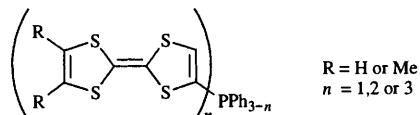
Bernd Kallies and Rolf Mitzner



*N,N'*-Dimethylurea hydrogen bonded to six water molecules

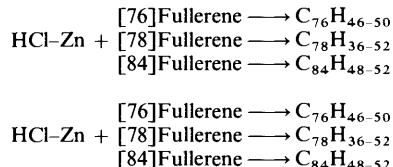
- 1409 Oxidation of phosphines containing two or three tetrathiafulvalene (TTF) or *o*-dimethyl-TTF moieties. Evidence for formation of radical polycations**

Fabian Gerson, Axel Lamprecht and Marc Fourmigüé



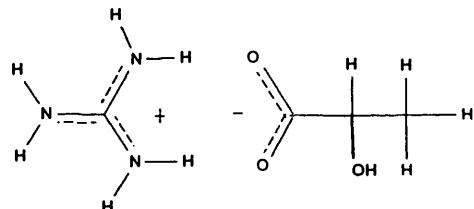
- 1415 Hydrogenation of [76]-, [78]- and [84]-fullerenes: cage degradation**

Adam D. Darwish, Harold W. Kroto, Roger Taylor and David R. M. Walton



- 1419 Characterization of lactate–guanidinium and lactate–lactate interactions in aqueous solution by spectropolarimetry**

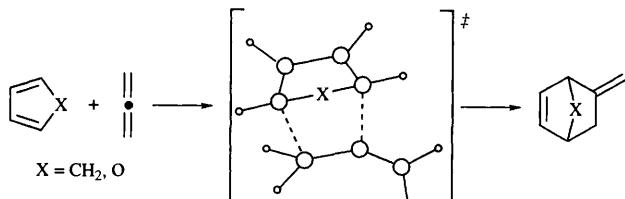
Péter Horváth, András Gergely and Béla Noszál



The association constant for the above guanidinium–lactate interaction is 6.11; the analogous value for the lactate dimerization is 1.12

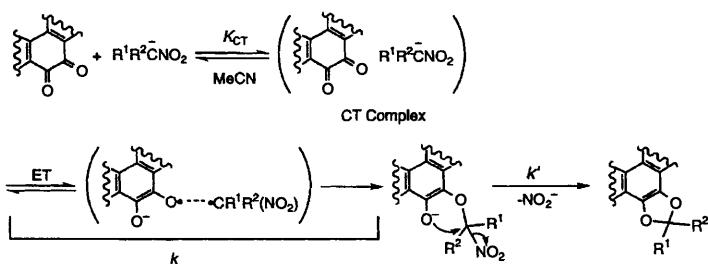
- 1423 Allene and fluoroallenes as dienophiles in Diels–Alder reactions: an AM1 and PM3 study**

Mariappan Manoharan and Ponnambalam Venuvanalingam



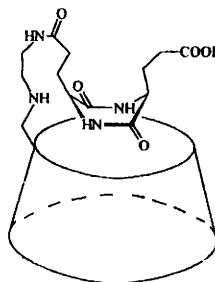
- 1429 Addition–cyclization reaction of nitroalkane anions with *o*-quinone derivatives *via* electron transfer in the charge-transfer complexes**

Shinobu Itoh, Junichi Maruta and Shunichi Fukuzumi



**1435 Synthesis and high field NMR study of a new cyclodipeptide- $\beta$ -cyclodextrin derivative**

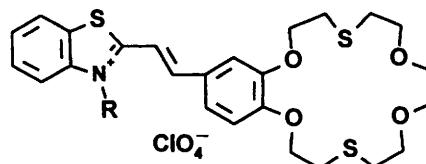
Giuseppe Impellizzeri, Giuseppe Pappalardo, Enrico Rizzarelli and Corrado Tringali



The synthesis and high field NMR study of a new cyclopeptide functionalized- $\beta$ -cyclodextrin  $\beta$ -CDen-c-(Glu-Glu) (3) in aqueous solution are reported

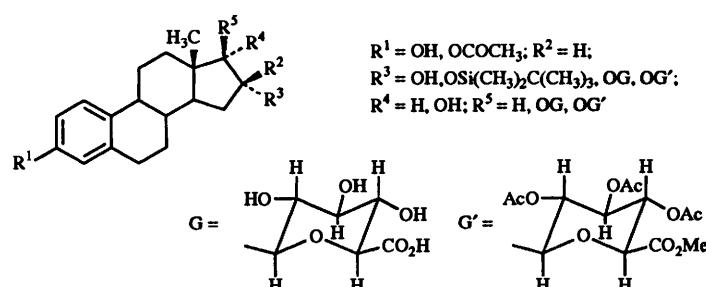
**1441 Synthesis and spectroscopic studies of novel photochromic benzodithiacrown ethers and their complexes**

Michael V. Alfimov, Yurii V. Fedorov, Olga A. Fedorova, Sergey S. Gromov, Ronald E. Hester, Igor K. Lednev, John N. Moore, Vladimir P. Oleshko and Artem I. Vedernikov



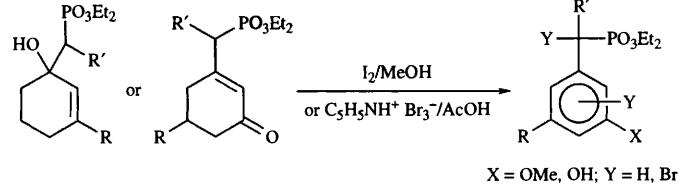
**1449 X-Ray crystal structure analysis and  $^{13}\text{C}$  NMR investigation of estriol 16- and 17-monoglucuronide derivatives**

Wu Yinqiu, Joyce M. Waters and Leonard F. Blackwell



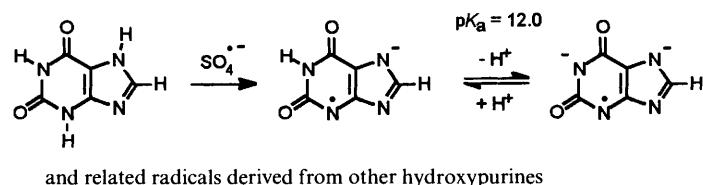
**1455 Reaction of phosphorus-stabilized carbanions with cyclic enones. Aromatization of the substitution and addition products**

Malose J. Mphahlele, André Pienaar and Tomasz A. Modro



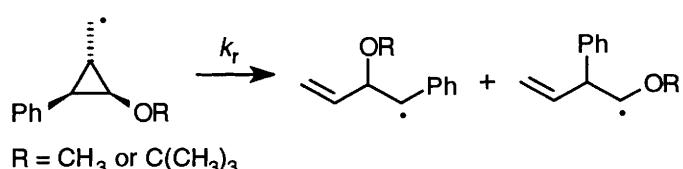
**1461 EPR spectroscopic study of the radical oxidation of hydroxypurines in aqueous solution: acid-base properties of the derived radicals**

Stephen R. Langman, M. Cândida B. L. Shohoji, João P. Telo, Abel J. S. C. Vieira and Horácio M. Novais



**1467 Picosecond radical kinetics. Rate constants for ring openings of (2-alkoxy-3-phenylcyclopropyl)methyl radicals**

Marie-Hélène Le Tadic-Biadatti and Martin Newcomb

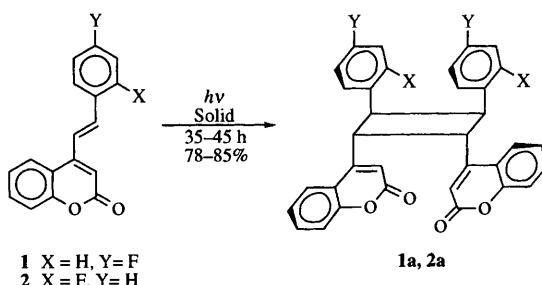


R = CH3 or C(CH3)3

Arrhenius functions for the reactions shown were determined by competition kinetics

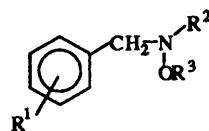
**1475 Studies in crystal engineering: effect of fluorine substitution in crystal packing and topological photodimerization of styryl coumarins in the solid state**

Kodumuru Vishnumurthy, Tayur N. Guru Row and Kailasam Venkatesan



**1479 Nitrogen inversion and N–O bond rotation processes in di- and tri-substituted hydroxylamines. A dynamic NMR study**

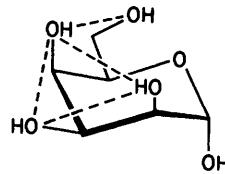
Sk. Asrof Ali, Azfar Hassan and Mohammed I. M. Wazeer



Substitution effects on the nitrogen inversion/N–O rotation barriers are discussed

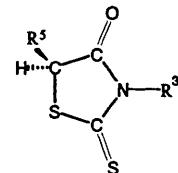
**1485 Intramolecular hydrogen bonds in monosaccharides in dimethyl sulfoxide solution**

Stephen J. Angyal and John C. Christofides



**1493 Chromatographic enantiomer separation and circular dichroism spectra of chiral rhodanines**

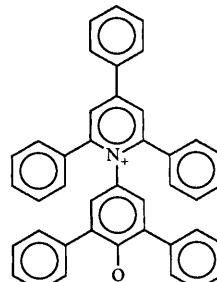
Knut Rang, Roland Isaksson and Jan Sandström



Chromatographic enantiomer separation, stereochemical stability and the UV and CD spectra of rhodanines,  $R^5 = Me$  and  $Ph$ , have been studied

**1497 Solute–solvent and solvent–solvent interactions in binary solvent mixtures. Part 3. The  $E_T(30)$  polarity of binary mixtures of hydroxylic solvents**

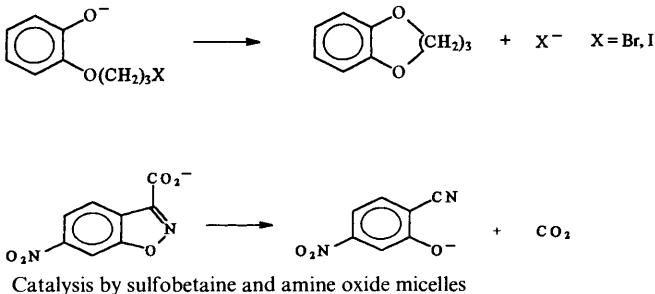
José Ortega, Clara Ràfols, Elisabeth Bosch and Martí Rosés



Solvent exchange models can be successfully applied to describe the transition energy of the Dimroth-Reichardt  $E_T(30)$  solvatochromic indicator in binary solvent mixtures

**1505 Cyclisation and decarboxylation in zwitterionic micelles: effects of head group structure**

Pietro Di Profio, Raimondo Germani, Gianfranco Savelli, Giorgio Cerichelli, Nicoletta Spreti and Clifford A. Bunton



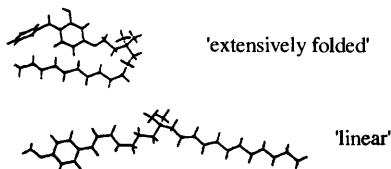
- 1511 Racemic compound formation–conglomerate formation. Part 3. Investigation of the acidic salts of  $\alpha$ -phenylethylamine by achiral dicarboxylic acids. Optical resolution by preferential crystallization and a structural study of (*R*)- $\alpha$ -phenylethylammonium hydrogen itaconate**

Zsolt Böcskei, Csaba Kassai, Kálmán Simon, Elemér Fogassy and Dávid Kozma

Acidic salts of eight achiral dicarboxylic acids with  $\alpha$ -phenylethylamine are investigated and it is found that conglomerate formation takes place when the protonated and deprotonated carboxylic groups form hydrogen bonded chains, rather than forming a cyclic intramolecular hydrogen bond; the crystal structure of (*R*)- $\alpha$ -phenylethylammonium hydrogen itaconate and its optical resolution by preferential crystallization is described

- 1517 Comparative conformational and dynamical study of some *N*-quaternarized UV filters: structure–activity relationships**

Cecilia Anselmi, Marisanna Centini, Marco Francioli and Alessandro Segà



The main conformers are dependent on structure and/or solvent

## Corrigendum

- 1525 EPR studies of pyrazoline radicals that are potential precursors to non-Kekulé polyene radicals ions** Richard J. Bushby and Kai M. Ng

xi Conference Diary

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# **9th International Symposium on Molecular Recognition and Inclusion**

**Lyon, France      7-12 September 1996**

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