Chem Comm

CHEMICAL COMMUNICATIONS • www.rsc.org/chemcomm



Cover

Red Poppies—a painting by Emil Nolde (1867–1956)

Free site-wide access to Advance Articles and the electronic form of this journal is provided with a full-rate institutional subscription.

See www.rsc.org/ejs for more information

contents

FFATURE ARTICLE

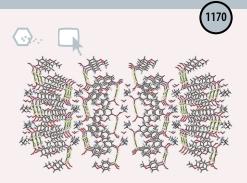


Morphine, the Proteus of organic molecules

Paul R. Blakemore and James D. White*

The history of morphine, its current production from opium, and efforts at its synthesis by bioanalogous and other routes are described.

COMMUNICATIONS



An unprecedented example of a \emph{cis} -phosphonodithioato nickel(II) complex built by an extensive hydrogen bonding supramolecular network

Vincenzo G. Albano, M. Carla Aragoni, Massimiliano Arca, Carlo Castellari, Francesco Demartin, Francesco A. Devillanova, Francesco Isaia, Vito Lippolis, Laura Loddo and Gaetano Verani*

A very novel case is presented of a one-pot self assembly of a *cis*-phosphonodithioato complex—ethylenediamine network, where both building blocks are formed *in situ*.

A nove photoco

A novel synthetic route to fused propenochlorin and benzochlorin photodynamic therapy probes

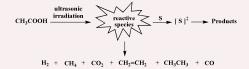
Guolin Li, Ricky Mehta, Thamarapu Srikrishnan, Daniel J. Nurco, Walter A. Tabaczynski, James L. Alderfer, Kevin M. Smith, Thomas J. Dougherty and Ravindra K. Pandey*

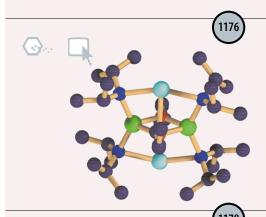
Octaethylporphyrin containing *meso*-(2-formylvinyl) group on reacting with (CH₃)₃SiCN–Cu(OTf)₂ produced chlorin by cyanide displacement followed by a Woodward–Hoffman [1,6] electrocyclization.

The role of solvent in sonochemical reactions: the case of acetic acid

Takahide Kimura,* Hisashi Harada, Takashi Ando, Mitsue Fujita, Jean-Marc Levêque and Jean-Louis Luche

Organic sonochemistry can originate in organic solvents as aqueous sonochemisty can in water, *via* the formation of reactive species from the solvent.





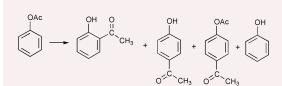
Alkoxide binding in inverse crown chemistry: rational synthesis of a series of composite alkali metal-magnesium-alkoxide-diisopropylamides

Katy J. Drewette, Kenneth W. Henderson, Alan R. Kennedy, Robert E. Mulvey,* Charles T. O'Hara and René B. Rowlings

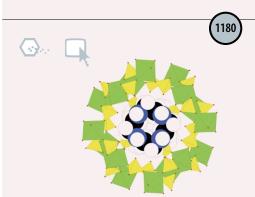
Extending yet further the concept of 'inverse crown' chemistry, a series of composite alkali metal-magnesium-alkoxide-diisopropylamides has been synthesised and structurally characterised.

Heteropoly acid as a novel efficient catalyst for Fries rearrangement

Elena F. Kozhevnikova, Eric G. Derouane and Ivan V. Kozhevnikov*



Heteropoly acid $\rm H_3PW_{12}O_{40}$ is a very efficient and environmentally benign catalyst for the Fries rearrangement of phenyl acetate in homogeneous or heterogeneous liquid-phase systems.



Synthesis and crystal structure of the first scandium-containing open framework solid

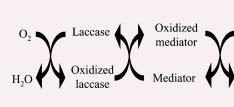
Ivor Bull, Paul S. Wheatley, Philip Lightfoot, Russell E. Morris, Enrique Sastre and Paul A. Wright*

A novel open framework scandium sulfate phosphate, $Sc_{56}(SO_4)_{98}(PO_4)_{22}\cdot [(C_8N_4H_{24})^{4+}]_{15}\cdot 34H^+\cdot 57H_2O, \ containing \ supercages \ with free$

diameter of 13 Å, has been prepared hydrothermally using the azamacrocycle cyclen, 1,4,7,10-tetraazacyclododecane, as a template.

1182

Oxidation of lignin model compounds by organic and transition metalbased electron transfer mediators



Lignin model compound

Oxidation products

Dominic Rochefort, Robert Bourbonnais, Dónal Leech* and Michael G. Paice

Oxidation of lignin model compounds by organic and transition metalbased mediators using laccase or electrolysis proves a useful tool for studying delignification reactions and seems a promising technology for pulp delignification. 1186

Breakthrough in the direct conversion of methane into c₁-oxygenates

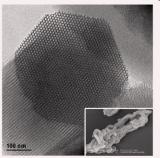
J. A. Barbero, M. C. Alvarez, M. A. Bañares, M. A. Peña and J. L. G. Fierro

The direct, one-step partial oxidation of methane into C_1 -oxygenates in the presence of small amounts of gaseous NO (1% vol) and a non-porous redox V/SiO_2 catalyst resulted in an exceptionally high yield of methanol and formaldehyde (16% at 923 K).

1% NO, 923K
$${\rm CH_4 \, + \, O_2 \, \longrightarrow \, HCHO \, + \, CH_3OH \, (Yield \, 16\%) }$$

$${\rm V_2O_5/SiO_2}$$

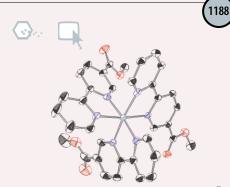




Microwave assisted template removal of siliceous porous materials

Bozhi Tian, Xiaoying Liu, Chengzhong Yu, Feng Gao, Qian Luo, Songhai Xie, Bo Tu and Dongyuan Zhao*

Highly efficient removal of the organic templates for porous materials by microwave digestion is demonstrated in this communication.



The isolation and secondary functionalisation of *fac*-tris-2,2'-bipyridine complexes of ruthenium(II)

Nicholas C. Fletcher,* Mark Nieuwenhuyzen, Ravi Prabarahan and Alison Wilson

A new C_3 -symmetric ruthenium polypyridiyl 'building-block' suitable for the preparation of supramolecular species.





First successful reaction of a silyl anion with hafnium tetrachloride

Dieter Frank, Judith Baumgartner and Christoph Marschner*

The reaction of a tmen adduct of tris(trimethylsilyl)silyl potassium with hafnium tetrachloride yields the first example of a hafnium trichlorosilyl tmen complex.

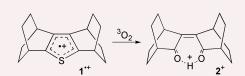




The stable radical cation of thiophene annelated with bicyclo[2.2.2]octene and its reaction with triplet oxygen to give a protonated cation of 2-butene-1,4-dione derivative

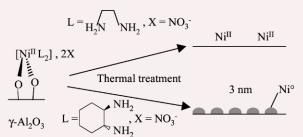
Atsushi Wakamiya, Tohru Nishinaga and Koichi Komatsu*

The first isolable salt of the thiophene radical cation 1^{\bullet_+} was prepared. Its reaction with triplet oxygen gave a novel proton-chelating cation 2^+ .



COMMUNICATIONS

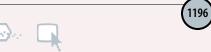


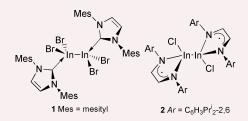


Interplay of anions and ligands on the nature and reducibility of NiO_x/Al₂O₃ catalysts prepared by impregnation

F. Negrier,* E. Marceau and M. Che

Thermal treatments in N_2 of NiO_x/Al_2O_3 catalysts prepared from $[NiL_2(H_2O)_2]X_2$ (L= diamine, $X=Cl^-$ or NO_3^-) lead either to easily reducible nickel(II) ions or dispersed metal particles depending on the ligand and counter anion.





Synthesis and characterisation of the first carbene and diazabutadiene-indium(II) complexes

Robert J. Baker, Robert D. Farley, Cameron Jones,* Marc Kloth and Damien M. Murphy

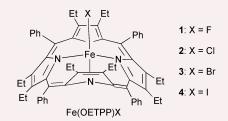
The reactions of an N-heterocyclic carbene or a diazabutadiene ligand with indium(I) halides afford the structurally characterised indium(II) compounds ${\bf 1}$ and ${\bf 2}$, respectively.



Highly saddle shaped (porphyrinato)iron(${\bf III}$) iodide with a pure intermediate spin state

Mikio Nakamura,* Takahisa Ikeue, Yoshiki Ohgo, Masashi Takahashi and Masuo Takeda

Combined analyses using NMR, EPR and Mössbauer spectroscopy as well as SQUID magnetometry have revealed that highly saddled 4 adopts a pure intermediate spin state in spite of the coordination of an iodide ligand.



1200

Novel tungsten calix[8]arene complexes

Vernon C. Gibson, Carl Redshaw* and Mark R. J. Elsegood



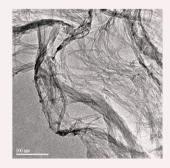
p-tert-butylcalix[8]areneH₈ reacts with WCl₆ forming a number of new metallocalix[8]arenes, one of which is reduced to give the first example of a metal-metal triple bond supported by a large calixarene ligand; the degree of metallation and conformations adopted are determined by single crystal X-ray diffraction.



Hierarchical interlinked structure of titanium oxide nanofibers

Zhong-Yong Yuan, Wuzong Zhou* and Bao-Lian Su*

A novel hierarchical interlinking structure of titanium oxide nanofibers with high surface area has been prepared by a soft hydrothermal chemical process *via* the reactions of amorphous TiO₂ gel (or commercial TiOSO₄ particles) and NaOH solution.



CHEM. COMMUN., 2002





A one-step synthesis of fused pentathiepins

Lidia S. Konstantinova, Oleg A. Rakitin and Charles W. Rees

Fused mono and bis pentathiepins are now readily available by treatment of nucleophilic heterocycles like pyrroles and thiophene, and their tetrahydro derivatives, with S₂Cl₂ and DABCO in chloroform at room temperature.



New efficient catalyst for ammonia synthesis: barium-promoted cobalt on carbon

Stefan Hagen,* Rasmus Barfod, Rasmus Fehrmann, Claus J. H. Jacobsen, Herman T. Teunissen, Kenny Ståhl and Ib Chorkendorff

 $3 H_2 + N_2 \xrightarrow{Ba-Co/C} 2 NH_3$

MMA

Barium promotes efficiently cobalt and nickel as ammonia synthesis catalysts. Ba-Co supported on carbon exhibits higher ammonia activities at synthesis temperatures than the commercial, multipromoted iron catalyst and also a lower ammonia inhibition.



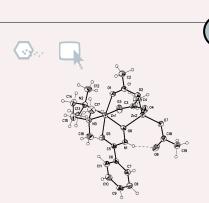


living, 92% rr

A well-defined magnesium enolate initiator for the living and highly syndioselective polymerisation of methylmethacrylate

Andrew P. Dove, Vernon C. Gibson,* Edward L. Marshall, Andrew J. P. White and David J. Williams

A magnesium enolate initiator supported by a bulky β -diketiminate ligand is found to polymerise methylmethacrylate (MMA) to highly syndiotactic poly(MMA), rr ~92%, under relatively mild conditions.



A novel dizinc bridged hydroxamate model for hydroxamate inhibited zinc hydrolases

David A. Brown,* William Errington, Noel J. Fitzpatrick, William K. Glass, Terence J. Kemp, Hassan Nimir and Áine T. Ryan

A novel dizinc hydroxamate bridged complex, [Zn₂(μ-OAc)₂(OAc)(μ-BA)(tmen)], is described, whose structure closely mimics that of the native hydroxamate inhibited Aeromonas proteolytica aminopeptidase.

1212

Double helical silica fibrils by sol-gel transcription of chiral aggregates of gemini surfactants



L-tartrate

L-1 : 2X = L-tartrate D-1: 2X' = D-tartrate OH.

D-tartrate





Kazunori Sugiyasu, Shun-ichi Tamaru, Masayuki Takeuchi, Damien Berthier, Ivan Huc, Reiko Oda and Seiji Shinkai*

Novel silica fibrils, which have the double helical structure are prepared for the first time by sol-gel transcription of twisted bilayer ribbons formed by gemini surfactants.



The total synthesis of alkaloids (—)-histrionicotoxin 259A, 285C and 285E

Catherine J. Smith, Andrew B. Holmes* and Neil J. Press

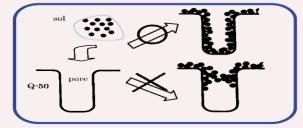
The first total syntheses of three "unsymmetrical" members of the histrionicotoxin family of alkaloids have been accomplished *via* stepwise introduction of the two side chain moieties onto a common tricyclic core.



Simultaneous introduction of chemical and spatial effects *via* a new bimodal catalyst support preparation method

Yi Zhang, Yoshiharu Yoneyama and Noritatsu Tsubaki*

New multi-functional bimodal supports are readily prepared by



New multi-functional bimodal supports are readily prepared by direct introduction of zirconia sol to silica gel; this is useful for the preparation of a highly active catalyst.

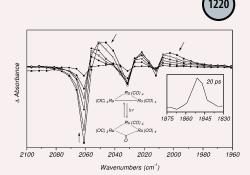


Anion sensing with luminescent lanthanide complexes of tris(2-pyridylmethyl)amines: Pronounced effects of lanthanide center and ligand chirality on anion selectivity and sensitivity

Takashi Yamada, Satoshi Shinoda and Hiroshi Tsukube*



Proper combinations of chiral chromophoric ligands and luminescent lanthanide centers promise many possibilities in the development of anion sensory systems.



First direct observation of a CO-bridged primary photoproduct of $[Ru_3({\rm CO})_{12}]$ by picosecond time-resolved IR spectroscopy

Frank W. Vergeer, František Hartl,* Pavel Matousek, Derk J. Stufkens and Michael Towrie

For the first time, a CO-bridged primary photoproduct has been observed for $[Ru_3(CO)_{12}]$ by using picosecond time-resolved IR spectroscopy. The observation of a bridging $\nu(CO)$ band supports the formation of a reactive isomer of $[Ru_3(CO)_{12}]$, as proposed in the literature.



Electric field induced *cis*-to-*trans* isomerization of polyphenylacetylene in solid state

Jing Zhi Sun, Hong Zheng Chen, Rui Song Xu, Mang Wang,* J. W. Y. Lam and Ben Zhong Tang

A field induced isomerization from *cis*-transoid to *trans*-transoid form in stereo-regular *cis*-rich polyphenylacetylenes was observed; it suggested that the *cis*-*trans* ratio in a working electronic device can never be assumed constant.

COMMUNICATIONS



Self-assembly of an organometallic side-by-side double helix

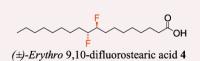
Christopher S. A. Fraser, Dana J. Eisler, Michael C. Jennings and Richard J. Puddephatt*



The first polymeric organometallic double helix has been synthesized by self-assembly through hydrogen bonding by using a biomimetic strategy and a new side-by-side structural motif.

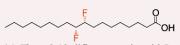
(1

The fluorine *gauche* effect. Langmuir isotherms report the relative conformational stability of (\pm) -erythro- and (\pm) -threo-9,10-difluorostearic acids



m.p. 67-69 ^OC

Mustafa Tavasli, David O'Hagan,* Christopher Pearson and Michael C. Petty



m.p. 86-88 ^OC

(±)-Erythro- and (±)-threo- 9,10-difluorostearic acids **4** and **5**, which differ only by a stereogenic interconversion of a single C–F bond, have significantly different conformational stabilities.

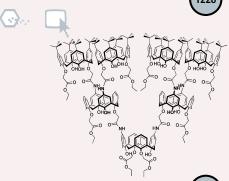
(±)-Threo 9,10-difluorostearic acid 5



Calix[4]arene based dendrimers

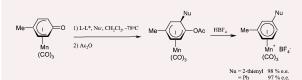
Fridrich Szemes, Michael G. B. Drew and Paul D. Beer*

The synthesis of calix[4]arene based dendrimers containing up to seven calix[4]arene moieties is described, including the X-ray crystal structure of a triscalix[4]arene branching derivative.



1230

Synthesis of planar chiral (1,3-disubstituted arene)Mn(CO)₃⁺ cations *via* addition of nucleophiles to (oxocyclohexadienyl)Mn(CO)₃ in the presence of chiral ligands



Seung Uk Son, Kang Hyun Park, Seung Jung Lee, Hwimin Seo and Young Keun Chung*

Planar chiral $(1,3\text{-disubstituted arene})\text{Mn}(\text{CO})_3^+$ cations have been firstly synthesized from $(p\text{-cresol})\text{Mn}(\text{CO})_3^+$.



N_2O decomposition over Fe/ZSM-5: reversible generation of highly active cationic Fe species



$$Fe_xO_y$$
+ 2(y-x) H⁺ $\stackrel{700^{\circ}C}{\longleftarrow}$ x $[FeO]$ ⁺+ (y-x) H₂O

Q. Zhu, E. J. M. Hensen,* B. L. Mojet, J. H. M. C. van Wolput and R. A. van Santen

Fe-oxide species in the micropore space of Fe/ZSM-5 react with protons at 700 °C to form cation species and are regenerated by exposure to water vapor at 500 °C, resulting in different catalytic activities in N_2O decomposition.

COMMUNICATIONS



20 μm

Nanotectonic approach of the texturation of CeO₂ based nanomaterials

Anne Bouchara, Galo J. de A. A. Soler-Illia, Jean-Yves Chane-Ching and Clément Sanchez*

Original coral-like, macroporous or helical macrotextures are obtained following a nanotectonic approach based on the co-assembly of functionalised nanocrystalline CeO₂ with a templating polypeptide (PBLG); porous CeO₂ is obtained upon calcination.

(1236)

Highly selective amorphous Ni–Cr–B catalyst in 2-ethylanthraquinone hydrogenation to 2-ethylanthrahydroquinone

Bo Liu, Minghua Qiao, Jianqiang Wang and Kangnian Fan*

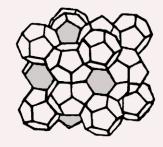
A nanosized amorphous Ni–Cr–B catalyst prepared by the chemical reduction method exhibited superior thermal stability and selectivity in hydrogen peroxide synthesis via the anthraquinone route.

1238

Direct synthesis and catalytic evaluation of AlSBA-1

Martin Hartmann,* A. Vinu, S. P. Elangovan, V. Murugesan and Winfried Böhlmann

Direct synthesis of AlSBA-1 containing only tetrahedrally coordinated aluminium: characterization and catalysis.



(1240)

Fe(CN)₆⁴- O₃S SO₃ SO₃ SO₃

Photocurrent responses at dye sensitised ultrathin polyelectrolyte multilayers supported on gold electrodes

Joseph J. Kakkassery, David J. Fermín* and Hubert H. Girault

The photoelectrochemical behaviour of ionic conducting ultrathin multilayers formed by sequential deposition of poly-L-lysine and poly-L-glutamic acid on modified gold electrodes is investigated upon sensitisation by zinc mesotetrakis(*p*-sulfonatophenyl)porphyrin.

CONFERENCE DIARY



Dates, venues and contact details of forthcoming events.

The Library and Information Centre (LIC) of the RSC offers a first class Document Delivery Service for items in Chemistry and related subjects. Contact the LIC, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, UK.

This service is only available from the LIC in London and not the RSC in Cambridge.

Contents lists in advance of publication are available on the web via www.rsc.org/chemcomm – or take advantage of our free e-mail alerting service (www.rsc.org/ej_alert) to receive notification each time a new list becomes available.



* Indicates the author for correspondence: see article for contact details. Supplementary crystallographic data are available: see article for further information.



Electronic supplementary information is available on http://www.rsc.org/esi: see article for further information.

Attention all Book Authors and Editors!

As an internationally renowned publisher in chemistry, the Royal Society of Chemistry is always keen to see proposals for new books. The Society would like to hear from you, or a colleague, if you have an idea for a book or are organising a conference from which you would like the proceedings published. (Even if you have an idea for a book, but do not wish to write it yourself, we would still be happy to hear from you.)

The categories of books published by the RSC include the following:

- Monographs
- Reviews
- Handbooks and Reference works
- Texts for undergraduates and graduates
- Proceedings of symposia and conferences



The RSC is unique in its coverage of chemistry and allied subjects, so is ideally placed for effective, world-wide marketing.

Please take a look at our website information at www.rsc.org/books or contact the Print Products Department at our Cambridge address for further details

C-12070032-MONO



Royal Society of Chemistry · Thomas Graham House · Science Park Milton Road · Cambridge · CB4 OWF · UK · T +44(0)1223 432360 F +44(0)1223 423429 · E sales@rsc.org · Or visit our website: www.rsc.org Part of the chemistry societies' network: www.chemsoc.org

ROYAL SOCIETY OF CHEMISTRY Investing in Chemistry

AUTHOR INDEX

Albano, Vincenzo G., 1170 Alderfer, James L., 1172 Alvarez, M. C., 1184 Ando, Takashi, 1174 Aragoni, M. Carla, 1170 Arca, Massimiliano, 1170 Baker, Robert J., 1196 Bañares, M. A., 1184 Barbero, J. A., 1184 Barfod, Rasmus, 1206 Baumgartner, Judith, 1190 Beer, Paul D., 1228 Berthier, Damien, 1212 Blakemore, Paul R., 1159 Böhlmann, Winfried, 1238 Bouchara, Anne, 1234 Bourbonnais, Robert, 1182 Brown, David A., 1210 Bull, Ivor, 1180 Castellari, Carlo, 1170 Chane-Ching, Jean-Yves, 1234 Che, M., 1194 Chen, Hong Zheng, 1222 Chorkendorff, Ib, 1206 Chung, Young Keun, 1230 Demartin, Francesco, 1170 Derouane, Eric G., 1178 Devillanova, Francesco A., 1170 Dougherty, Thomas J., 1172 Dove, Andrew P., 1208 Drew, Michael G. B., 1228 Drewette, Katy J., 1176 Eisler, Dana J., 1224 Elangovan, S. P., 1238 Elsegood, Mark R. J., 1200 Errington, William, 1210 Fan, Kangnian, 1236 Farley, Robert D., 1196 Fehrmann, Rasmus, 1206 Fermín, David J., 1240 Fierro, J. L. G., 1184

Fitzpatrick, Noel J., 1210

Fletcher, Nicholas C., 1188

Frank, Dieter, 1190 Fraser, Christopher S. A., 1224 Fujita, Mitsue, 1174 Gao, Feng, 1186 Gibson, Vernon C., 1200, 1208 Girault, Hubert H., 1240 Glass, William K., 1210 Hagen, Stefan, 1206 Harada, Hisashi, 1174 Hartl, František, 1220 Hartmann, Martin, 1238 Henderson, Kenneth W., 1176 Hensen, E. J. M., 1232 Holmes, Andrew B., 1214 Huc, Ivan, 1212 Ikeue, Takahisa, 1198 Isaia, Francesco, 1170 Jacobsen, Claus J. H., 1206 Jennings, Michael C., 1224 Jones, Cameron, 1196 Kakkassery, Joseph J., 1240 Kemp, Terence J., 1210 Kennedy, Alan R., 1176 Kimura, Takahide, 1174 Kloth, Marc, 1196 Komatsu, Koichi, 1192 Konstantinova, Lidia S., 1204 Kozhevnikov, Ivan V., 1178 Kozhevnikova, Elena F., 1178 Lam, J. W. Y., 1222 Lee, Seung Jung, 1230 Leech, Dónal, 1182 Levêque, Jean-Marc, 1174 Li, Guolin, 1172 Lightfoot, Philip, 1180 Lippolis, Vito, 1170 Liu, Bo, 1236 Liu, Xiaoying, 1186 Loddo, Laura, 1170 Luche, Jean-Louis, 1174 Luo, Qian, 1186 Marceau, E., 1194 Marschner, Christoph, 1190 Marshall, Edward L., 1208

Matousek, Pavel, 1220 Mehta, Ricky, 1172 Mojet, B. L., 1232 Morris, Russell E., 1180 Mulvey, Robert E., 1176 Murphy, Damien M., 1196 Murugesan, V., 1238 Nakamura, Mikio, 1198 Negrier, F., 1194 Nieuwenhuyzen, Mark, 1188 Nimir, Hassan, 1210 Nishinaga, Tohru, 1192 Nurco, Daniel J., 1172 Oda, Reiko, 1212 O'Hagan, David, 1226 O'Hara, Charles T., 1176 Ohgo, Yoshiki, 1198 Paice, Michael G., 1182 Pandey, Ravindra K., 1172 Park, Kang Hyun, 1230 Pearson, Christopher, 1226 Peña, M. A., 1184 Petty, Michael C., 1226 Prabarahan, Ravi, 1188 Press, Neil J., 1214 Puddephatt, Richard J., 1224 Qiao, Minghua, 1236 Rakitin, Oleg A., 1204 Redshaw, Carl, 1200 Rees, Charles W., 1204 Rochefort, Dominic, 1182 Rowlings, René B., 1176 Ryan, Aine T., 1210 Sanchez, Clément, 1234 Sastre, Enrique, 1180 Seo, Hwimin, 1230 Shinkai, Seiji, 1212 Shinoda, Satoshi, 1218 Smith, Catherine J., 1214 Smith, Kevin M., 1172 Soler-Illia, Galo J. de A. A., Son, Seung Uk, 1230 Srikrishnan, Thamarapu, 1172

Stufkens, Derk J., 1220 Su, Bao-Lian, 1202 Sugiyasu, Kazunori, 1212 Sun, Jing Zhi, 1222 Szemes, Fridrich, 1228 Tabaczynski, Walter A., 1172 Takahashi, Masashi, 1198 Takeda, Masuo, 1198 Takeuchi, Masayuki, 1212 Tamaru, Shun-ichi, 1212 Tang, Ben Zhong, 1222 Tavasli, Mustafa, 1226 Teunissen, Herman T., 1206 Tian, Bozhi, 1186 Towrie, Michael, 1220 Tsubaki, Noritatsu, 1216 Tsukube, Hiroshi, 1218 Tu, Bo, 1186 van Santen, R. A., 1232 van Wolput, J. H. M. C., 1232 Verani, Gaetano, 1170 Vergeer, Frank W., 1220 Vinu, A., 1238 Wakamiya, Atsushi, 1192 Wang, Jianqiang, 1236 Wang, Mang, 1222 Wheatley, Paul S., 1180 White, Andrew J. P., 1208 White, James D., 1159 Williams, David J., 1208 Wilson, Alison, 1188 Wright, Paul A., 1180 Xie, Songhai, 1186 Xu, Rui Song, 1222 Yamada, Takashi, 1218 Yoneyama, Yoshiharu, 1216 Yu, Chengzhong, 1186 Yuan, Zhong-Yong, 1202 Zhang, Yi, 1216 Zhao, Dongyuan, 1186 Zhou, Wuzong, 1202 Zhu, Q., 1232

Ståhl, Kenny, 1206

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