

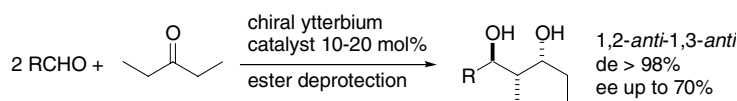
Contents

COMMUNICATIONS

The first example of a catalytic asymmetric aldol-Tishchenko reaction of aldehydes and aliphatic ketones

pp 7549–7552

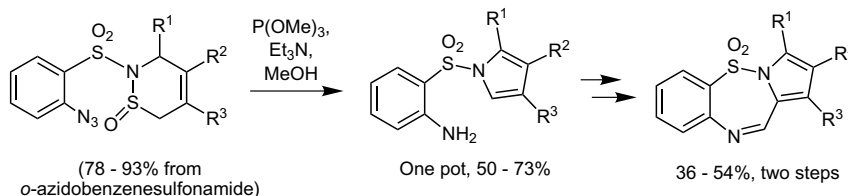
Jacek Mlynarski\* and Marcin Mitura



The synthesis of pyrrolo[1,2-*b*][1,2,5]benzothiadiazepines from 1,2-thiazine 1-oxides—sulfonamide analogues of the pyrrolobenzodiazepine antitumour natural products

pp 7553–7556

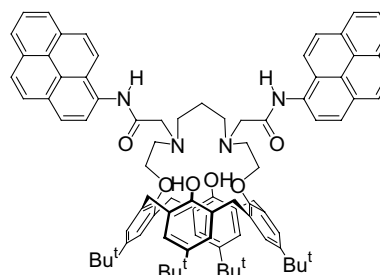
Karl Hemming\* and Nilesh Patel



Hg<sup>2+</sup>-selective fluoroionophore of *p*-*tert*-butylcalix[4]arene-diaza-crown ether having pyrenylacetamide subunits

pp 7557–7561

Ju Hee Kim, Ah-Ran Hwang and Suk-Kyu Chang\*

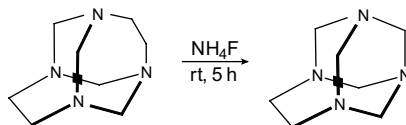


A new ionophore having two pyrenylacetamide moieties based on the *p*-*tert*-butylcalix[4]arene-diaza-crown ether has been prepared. Bis(pyrenyl) derivative was found to exhibit selective ON–OFF type sensing behavior toward Hg<sup>2+</sup> ions over other representative transition and heavy metal ions in pyrene monomer and excimer emission regions.

**Preparation of cage amine 1,3,6,8-tetraazatricyclo[4.3.1.1<sup>3,8</sup>]undecane**

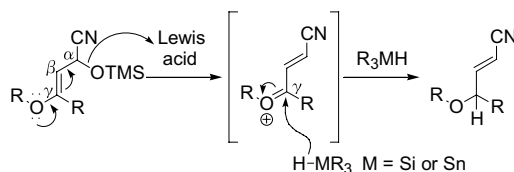
pp 7563–7565

Augusto Rivera,\* Martín E. Núñez, Martha S. Morales-Ríos and Pedro Joseph-Nathan

**Novel branched ether formation via conjugate reduction of an unsaturated cyanohydrin derivative and its synthetic application to the EF-ring segment of ciguatoxin**

pp 7567–7571

Atsushi Takemura, Kenshu Fujiwara,\* Akio Murai, Hidetoshi Kawai and Takanori Suzuki

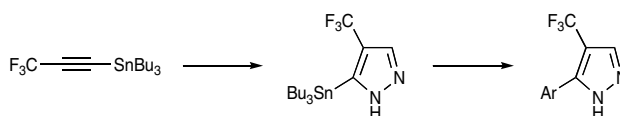


A novel branched ether formation reaction was developed and applied to the synthesis of the EF-ring segment of ciguatoxin.

**Tributyl(3,3,3-trifluoro-1-propynyl)stannane as an efficient reagent for the preparation of various trifluoromethylated heterocyclic compounds**

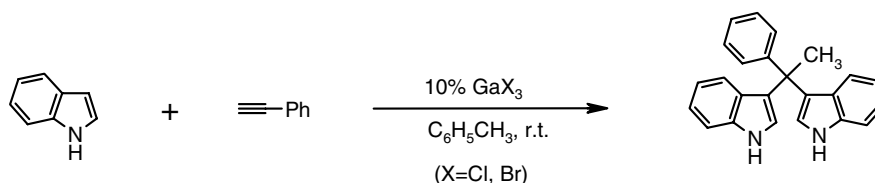
pp 7573–7576

Takeshi Hanamoto,\* Yuhko Hakoshima and Mikio Egashira

**Gallium(III) halide-catalyzed coupling of indoles with phenylacetylene: synthesis of bis(indolyl)phenylethanes**

pp 7577–7579

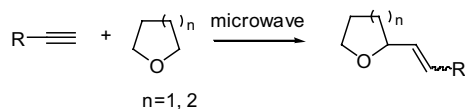
J. S. Yadav,\* B. V. S. Reddy, B. Padmavani and Manoj Kumar Gupta

Indoles undergo smooth coupling with phenylacetylene in the presence of 10 mol % of gallium(III) chloride or gallium(III) bromide under mild conditions to afford the corresponding 1,1-bis(1*H*-3-indolyl)-1-phenylethanes.

**Microwave-assisted direct addition of cycloethers to alkynes**

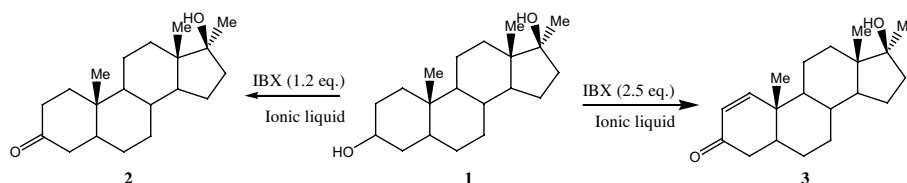
pp 7581–7584

Yuhua Zhang and Chao-Jun Li\*

**IBX in an ionic liquid: eco-friendly oxidation of 17 $\alpha$ -methylandrostan-3 $\beta$ ,17 $\beta$ -diol, an intermediate in the synthesis of anabolic oxandrolone**

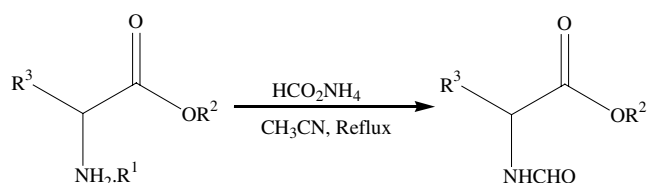
pp 7585–7588

Bhupender S. Chhikara, Ramesh Chandra and Vibha Tandon\*

**Environmentally benign process for the synthesis of *N*-formyl amino acid esters**

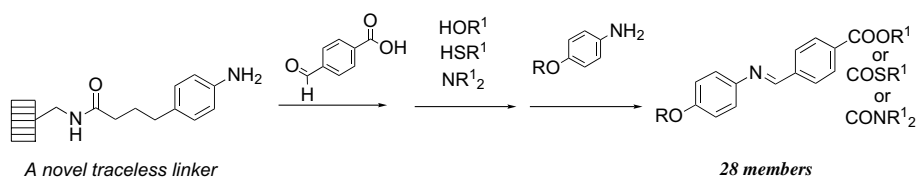
pp 7589–7590

Sambasivarao Kotha,\* Manoranjan Behera and Priti Khedkar

Several amino acid ester hydrochlorides were reacted with ammonium formate to give *N*-formyl amino acid esters in good yields.**Development of a new traceless aniline linker for combinatorial solid-phase parallel synthesis of rod-shaped liquid crystals with an azomethine linkage**

pp 7591–7594

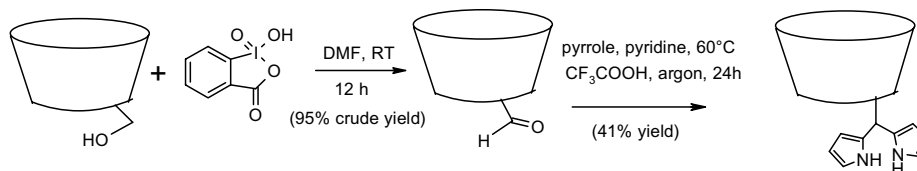
Hideaki Hioki,\* Mizuki Fukutaka, Hideki Takahashi, Mitsuaki Kodama, Kanji Kubo, Keiko Ideta and Akira Mori\*



**Synthetic methodology for cyclodextrin–dipyrromethane conjugates**

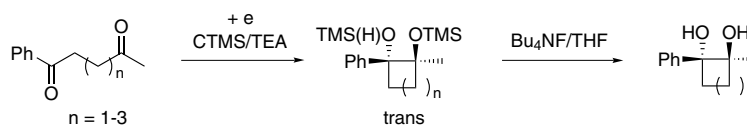
pp 7595–7597

Jyothi N. Swamy, R. E. K. Winter, Charles R. Jeffreys and Valerian T. D'Souza\*

**trans-Stereoselective intramolecular crossed pinacol coupling of aromatic 1,4-, 1,5-, and 1,6-diketones by electroreduction**

pp 7599–7603

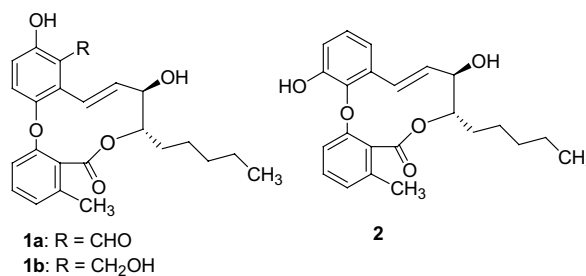
Naoki Kise,\* Yousuke Shiozawa and Nasuo Ueda

**Aspercyclide A–C, three novel fungal metabolites from *Aspergillus* sp. as inhibitors of high-affinity IgE receptor**

pp 7605–7608

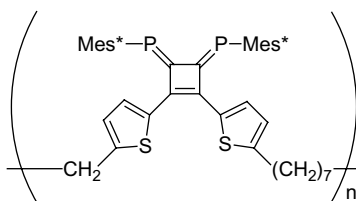
Sheo B. Singh,\* Hiranthi Jayasuriya, Deborah L. Zink, Jon D. Polishook, Anne W. Dombrowski and Hans Zweerink

Bioassay-guided isolation of an extract of *Aspergillus* sp. led to the identification of three novel 11-membered macrocyclic biphenyl ether lactones, aspercyclides A–C. Aspercyclide A inhibited the IgE binding with an IC<sub>50</sub> of 200 μM. The isolation, structure elucidation, absolute stereochemistry and the binding activities of these compounds are described.

**Preparations and properties of polymers containing 3,4-bis[(2,4,6-tri-*t*-butylphenyl)phosphinidene]-1,2-di(2-thienyl)cyclobutene moieties**

pp 7609–7612

Kozo Toyota, Junichi Ujita, Subaru Kawasaki, Keita Abe, Naoki Yamada and Masaaki Yoshifuji\*



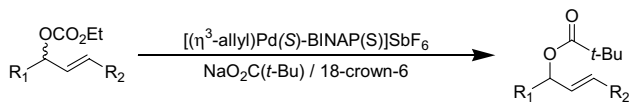
A polymer containing diphosphinidene-cyclobutene units was prepared and its properties were studied.



**Enantioselective synthesis of acyclic allylic esters catalyzed by a palladium/BINAP(S) system**

pp 7613–7616

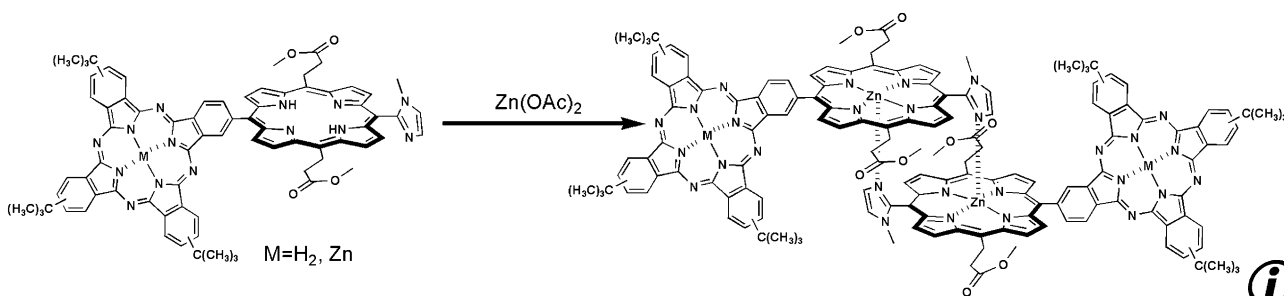
J. W. Faller\* and Jeremy C. Wilt



**Light-harvesting composites of directly connected porphyrin–phthalocyanine dyads and their coordination dimers**

pp 7617–7620

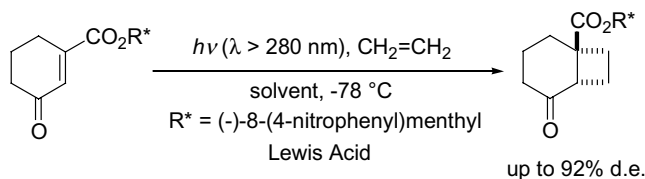
Kazuya Kameyama, Akiharu Satake and Yoshiaki Kobuke\*



**Highly diastereoselective synthesis of bicyclo[4.2.0]octanone derivatives by the [2+2] photocycloaddition of chiral cyclohexenonecarboxylates to ethylene**

pp 7621–7624

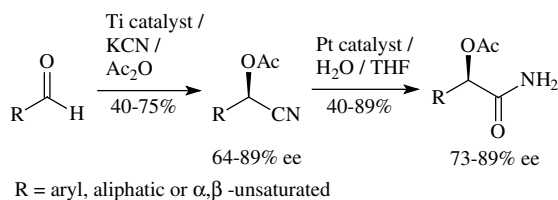
Akinori Furutani, Ken Tsutsumi, Hiroaki Nakano, Tsumoru Morimoto and Kiyomi Kakiuchi\*



**Catalytic, asymmetric synthesis of α-acetoxy amides**

pp 7625–7627

Michael North,\* Adrian W. Parkins\* and Atiya N. Shariff

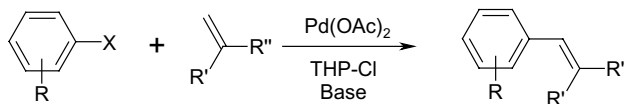


Treatment of aldehydes with a titanium (salen) based catalyst, potassium cyanide and acetic anhydride gives non-racemic cyanohydrin acetates, which undergo chemoselective hydrolysis to α-acetoxy amides when treated with a platinum phosphinito catalyst.

**Heck reactions of aryl halides in phosphonium salt ionic liquids: library screening and applications**

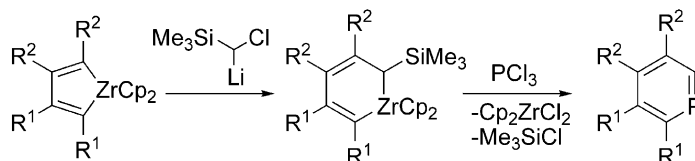
pp 7629–7631

David A. Gerritsma, Al Robertson, James McNulty and Alfredo Capretta\*

**Synthesis of phosphinines and phosphinanes using zirconium chemistry**

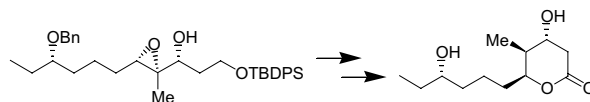
pp 7633–7636

Rupert A. Hunter, Richard J. Whitby,\* Mark E. Light and Michael B. Hursthouse

**Synthesis of (3*R*,4*S*,5*S*,9*S*)-3,5,9-trihydroxy-4-methylundecanoic acid  $\delta$ -lactone**

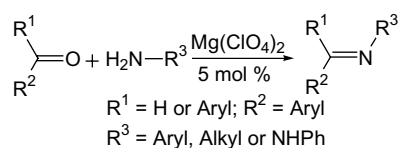
pp 7637–7639

Tushar K. Chakraborty\* and Rajib K. Goswami

**Magnesium perchlorate as an efficient catalyst for the synthesis of imines and phenylhydrazones**

pp 7641–7644

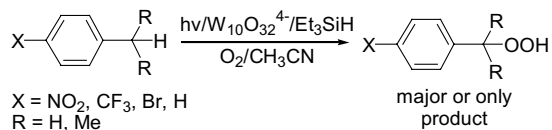
Asit K. Chakraborti,\* Srikant Bhagat and Santosh Rudrawar



**Photooxidation of aryl alkanes by a decatungstate/triethylsilane system in the presence of molecular oxygen**

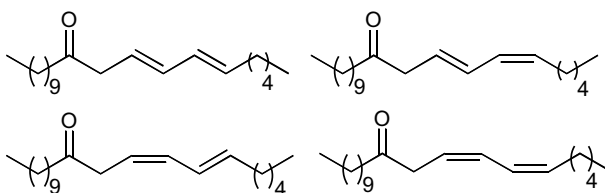
pp 7645–7649

Ioannis N. Lykakis and Michael Orfanopoulos\*

**Stereospecific synthesis of all four isomeric 6,8-heneicosadien-11-ones: sex pheromone components of the painted apple moth *Teia anartoides***

pp 7651–7654

Daniel J. Comeskey, Barry J. Bunn\* and Simon Fielder

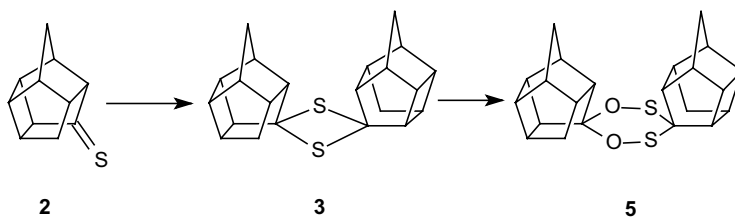


All four isomeric 6,8-heneicosadien-11-ones were synthesised using a Suzuki-coupling strategy.

**The dimerization and photochemical rearrangement of pentacyclo-[5.4.0.0<sup>2,6</sup>.0<sup>3,10</sup>.0<sup>5,9</sup>]undecane-8-thione**

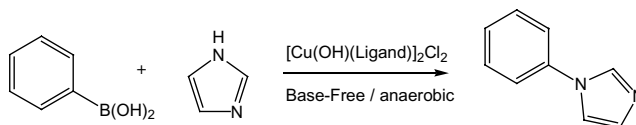
pp 7655–7657

Colin E. Read,\* Frans J. C. Martins and Agatha M. Viljoen

**Base-free anaerobic Cu(II) catalysed aryl-nitrogen bond formations**

pp 7659–7662

Sander S. van Berkel, Adri van den Hoogenband, Jan Willem Terpstra, Moniek Tromp, Piet W. N. M. van Leeuwen and Gino P. F. van Strijdonck\*

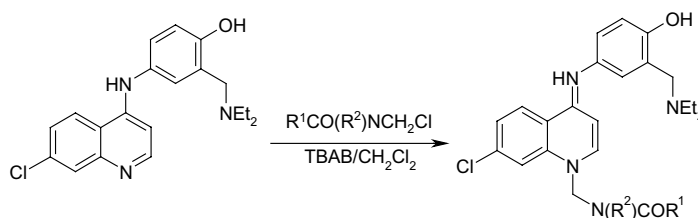


The Cu(II) catalysed coupling of arylboronic acids with imidazole can be performed at ambient temperature without the need for base or dioxygen. The presence of water however is essential for the reaction to proceed.

**Amidomethylation of amodiaquine: antimalarial *N*-Mannich base derivatives**

pp 7663–7666

Francisca Lopes, Rita Capela, José O. Gonçalves, Peter N. Horton, Michael B. Hursthouse, Jim Iley,\* Catarina M. Casimiro, Joana Bom and Rui Moreira

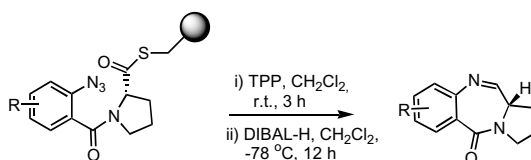


Alkylation of amodiaquine affords novel *N*-Mannich-base derivatives that display high activity against the multi-drug resistant *Plasmodium falciparum* strain Dd2.

**A new approach for the solid-phase synthesis of pyrrolo[2,1-*c*][1,4]benzodiazepines involving reductive cleavage**

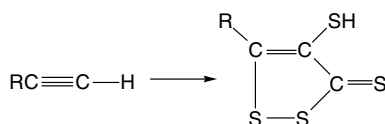
pp 7667–7669

Ahmed Kamal,\* K. Laxma Reddy, V. Devaiah, N. Shankaraiah and Y. Narasimha Reddy

**A convenient route to 4-mercapto-1,2-dithiole-3-thiones from terminal alkynes**

pp 7671–7674

Harry Adams, Lai-Ming Chung, Michael J. Morris\* and Penelope J. Wright

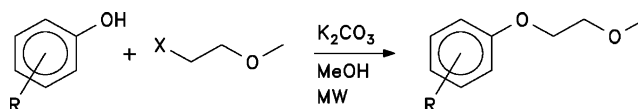


Sequential treatment of terminal alkynes with *n*-butyllithium, carbon disulfide and elemental sulfur gives 4-mercapto-1,2-dithiole-3-thiones in good yields after acidic workup.

**Rapid microwave-assisted synthesis of phenyl ethers under mildly basic and nonaqueous conditions**

pp 7675–7677

Julien Sarju, Timothy N. Danks and Gabriele Wagner\*



Microwave-assisted alkylation of phenols can be achieved within short reaction times under mild conditions using  $K_2CO_3$  as a base, in methanol as a solvent. The method is suitable for base sensitive compounds or partially water-soluble substrates.

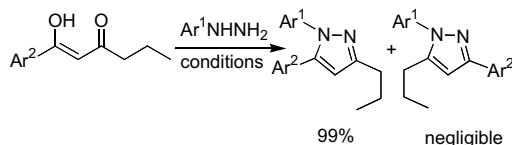




**Modified reaction conditions to achieve high regioselectivity in the two component synthesis of 1,5-diarylpyrazoles**

pp 7679–7682

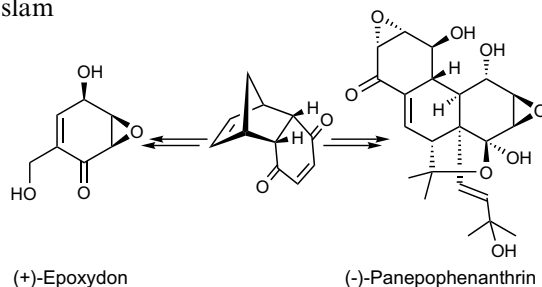
Sunil K. Singh,\* M. Srinivasa Reddy, S. Shivaramakrishna, D. Kavitha, R. Vasudev, J. Moses Babu, A. Sivalakshmidevi and Y. Koteswar Rao\*



**Enantioselective total synthesis of epoxyquinone natural products (–)-phyllostine, (+)-epoxydon, (+)-epiepoxydon and (–)-panepophenanthrin: access to versatile chiral building blocks through enzymatic kinetic resolution**

pp 7683–7687

Goverdhan Mehta\* and Kabirul Islam

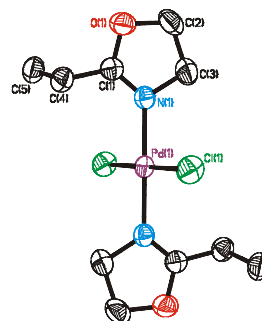


**Application of an air stable Pd oxazoline complex for Heck, Suzuki, Sonogashira and related C–C bond-forming reactions**

pp 7689–7691

Robert A. Gossage,\* Hilary A. Jenkins and Paras N. Yadav

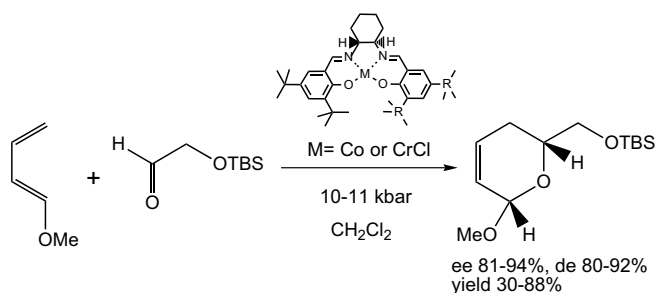
The novel complex *trans*-[PdCl<sub>2</sub>(η<sup>1</sup>-*N*-2-ethyl-2-oxazoline)<sub>2</sub>] is shown to be an active and oxidatively robust catalyst for C–C bond-forming reactions (Heck, Sonogashira, Ullman, Suzuki), which can be carried out in air without rigorous solvent/substrate purification and in the absence of additional free ligand.



**The enantioselective high-pressure Diels–Alder reaction of 1-methoxybuta-1,3-diene with *tert*-butyldimethylsilyloxyacetaldehyde catalyzed by (salen)Co(II) and (salen)Cr(III)Cl complexes**

pp 7693–7696

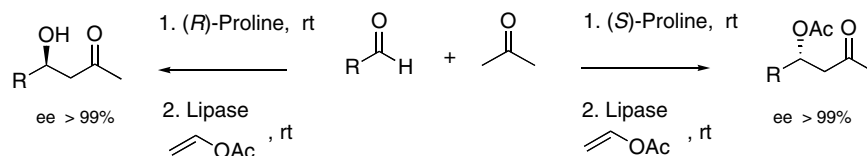
Małgorzata Malinowska, Piotr Kwiatkowski and Janusz Jurczak\*



**Tandem enantioselective organo- and biocatalysis: a direct entry for the synthesis of enantiomerically pure aldols**

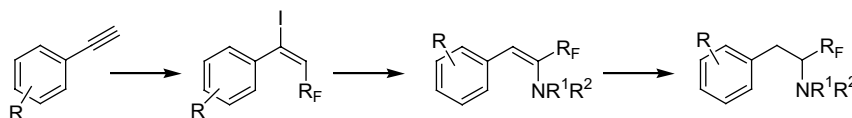
pp 7697–7701

Michaela Edin, Jan-E. Bäckvall\* and Armando Córdoba\*


**An easy three step synthesis of perfluoroalkylated amphetamines**

pp 7703–7707

Amit Tewari, Martin Hein,\* Alexander Zapf and Matthias Beller\*

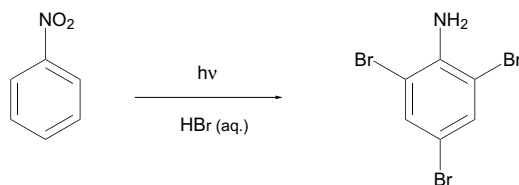


A general method for the synthesis of fluoroalkylated amphetamine derivatives is presented starting from commercially available arylacetylenes. The method allows the preparation of primary, secondary, and tertiary amines.

**Photoreaction of nitrobenzenes with hydrobromic acid**

pp 7709–7711

Brian P. McIntyre, Brian D. Coleman and Gene G. Wubbels\*

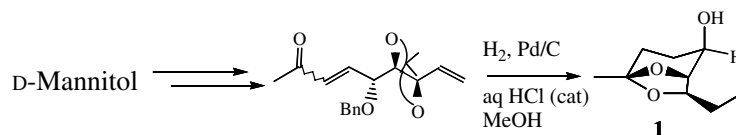


Nitrobenzene and three derivatives (3-CO<sub>2</sub>H, 3-OH, and 4-OH) give tribromoanilines when irradiated in hydrobromic acid.

**A chiron approach to (1R,2R,5S,7R)-2-hydroxy-*exo*-brevicomine, a component of the volatiles produced by the male mountain pine beetle, *Dendroctonus ponderosae***

pp 7713–7714

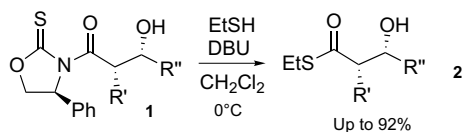
D. Naveen Kumar and B. Venkateswara Rao\*



**Facile removal of 4-phenyl-oxazolidinethione auxiliary with EtSH mediated by DBU**

pp 7715–7717

Yikang Wu,\* Qi Hu, Ya-Ping Sun and Yong-Qing Yang

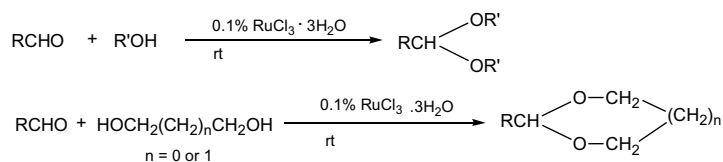


*N*-Acyl- $\beta$ -hydroxy-4-phenyl-oxazolidinethiones could be rapidly converted into thioesters in high yields by treatment with EtSH/DBU at 0°C.

**A convenient and highly efficient method for the protection of aldehydes using very low loading hydrous ruthenium(III) trichloride as catalyst**

pp 7719–7721

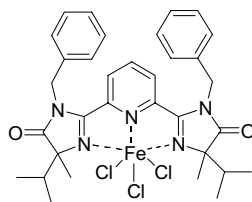
Jian-Ying Qi, Jian-Xin Ji, Chi-Hung Yueng,\* Hoi-Lun Kwong and Albert S. C. Chan\*



**New chiral ligands and iron(III) complexes based on 2,6-bis(1-benzyl-4-isopropyl-4-methyl-4,5-dihydro-1H-imidazol-5-on-2-yl)pyridines**

pp 7723–7726

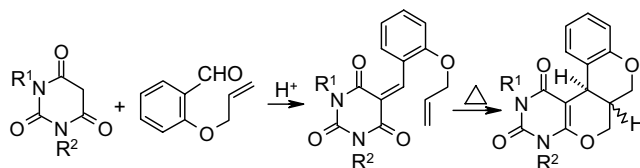
Miloš Sedlák,\* Pavel Drabina, Ivana Čisarová, Aleš Růžička, Jiří Hanusek and Vladimír Macháček



**Stereoselective intramolecular hetero Diels–Alder reactions of 1-oxa-1,3-butadienes: a novel approach for the synthesis of complex annulated uracils**

pp 7727–7728

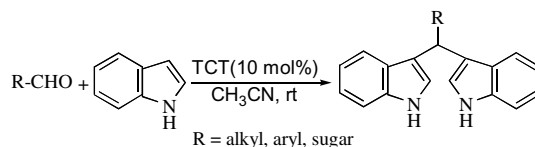
Ipsita Devi and Pulak J. Bhuyan\*



### A versatile and practical synthesis of bis(indolyl)methanes/bis(indolyl)glycoconjugates catalyzed by trichloro-1,3,5-triazine

pp 7729–7732

G. V. M. Sharma,\* J. Janardhan Reddy, P. Sree Lakshmi and Palakodety Radha Krishna

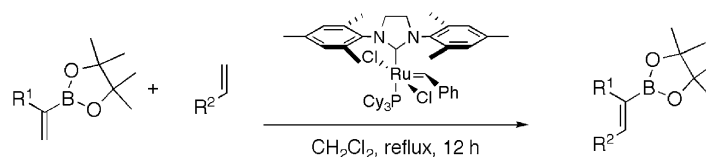


A practical and efficient electrophilic substitution reaction of indoles with aldehydes using catalytic trichloro-1,3,5-triazine (10 mol%) in acetonitrile to furnish the corresponding bis(indolyl)methanes in excellent yields is reported.

### Synthesis of tri-substituted vinyl boronates via ruthenium-catalyzed olefin cross-metathesis

pp 7733–7736

Christie Morrill, Timothy W. Funk and Robert H. Grubbs\*



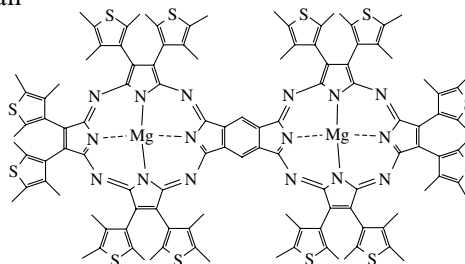
Tri-substituted vinyl pinacol boronates are synthesized using cross-metathesis of  $\alpha$ -substituted vinyl boronates. The reactions proceed with moderate yields and high *Z*-selectivity when  $R^1$  = methyl. When  $R^1$  is larger than a methyl group, yields and *Z*-selectivity are moderate at best, and the reactions are highly substrate dependent.



### Synthesis and photochromism of a new binuclear porphyrazinato magnesium(II)

pp 7737–7740

Qianfu Luo, Saihe Cheng and He Tian\*



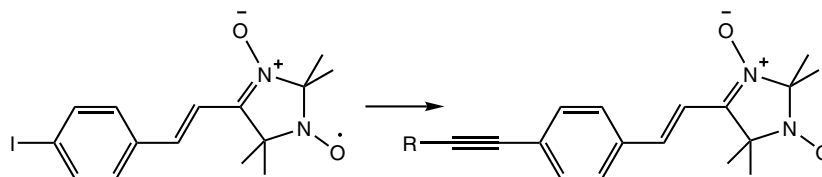
A simple synthesis and the near-infrared luminescent changes and photochromism of a new coplanar binuclear porphyrazine bearing six bis-(trimethylthiophenyl) photochromic units at the periphery are described.



### First acetylenic derivatives of stable 3-imidazoline nitroxides

pp 7741–7743

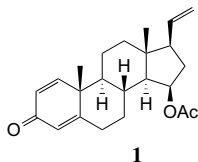
Sergei F. Vasilevsky,\* Svetlana V. Klyatskaya, Olga L. Korovnikova, Dmitri V. Stass, Svetlana A. Amitina, Igor A. Grigir'ev\* and José Elguero\*



**New C<sub>21</sub> Δ<sup>20</sup> pregnanes, inhibitors of mitochondrial respiratory chain, from Indopacific octocoral *Carijoa* sp.**

pp 7745–7748

M. Letizia Ciavatta,\* M. Pilar Lopez Gresa, Emiliano Manzo, Margherita Gavagnin, Solimabi Wahidulla and Guido Cimino

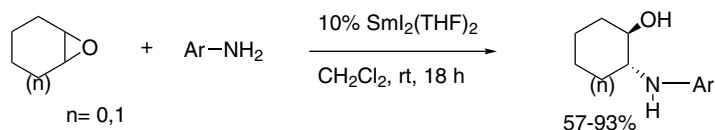


The isolation and characterization of two new pregnanes (i.e., compound **1**), together with previously found metabolites, are reported from the Indopacific octocoral *Carijoa* sp. A strong activity as inhibitors of mitochondrial electron transport system of mammalian cells was found for the new compounds.

**Samarium iodides catalyzed *meso*-epoxides ring opening by aromatic amines**

pp 7749–7751

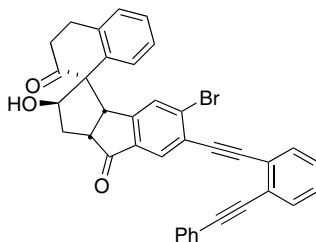
Fabien Carrée, Richard Gil and Jacqueline Collin\*



**Photoactivated enediynes: targeted chimeras which undergo photo-Bergman cyclization**

pp 7753–7756

Farid S. Fouad, Curtis F. Crasto, Yiqing Lin and Graham B. Jones\*

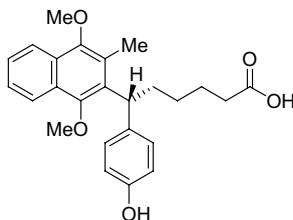


Enediyne chimeras containing a photoactivated warhead coupled to either a porphyrin or nucleic acid binding motif were prepared via Pd coupling methodology. Photoactivation was achieved in both cases, paving the way for application in photodynamic therapy.

**Asymmetric synthesis of (*R*)-(+)-6-(1,4-dimethoxy-3-methyl-2-naphthyl)-6-(4-hydroxyphenyl)hexanoic acid as a key intermediate for a neurodegenerative disease agent**

pp 7757–7760

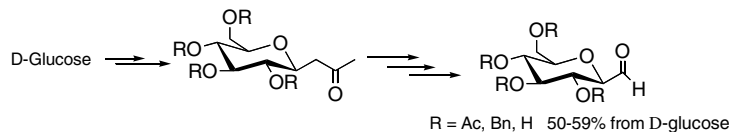
Tomomi Ikemoto, Toshiaki Nagata,\* Mitsuhsa Yamano, Tatsuya Ito, Yukio Mizuno and Kiminori Tomimatsu



**A convenient new route to protected and free 2,6-anhydro-D-glycero-D-gulo-heptoses (1-formyl-β-D-glucopyranosides)**

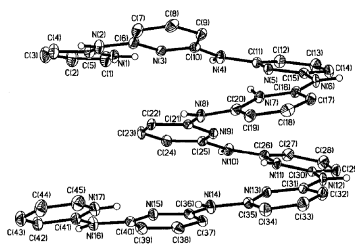
pp 7761–7763

Jennifer Zeitouni, Stéphanie Norsikian\* and André Lubineau

**Synthesis of long-chained oligo-α-aminopyridines by tandem Pd-catalyzed cross-coupling aminations and their helical dinuclear complexes**

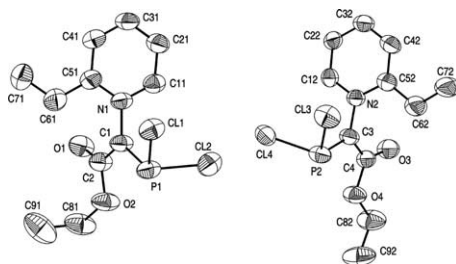
pp 7765–7769

Hasan Hasanov, Uan-Kang Tan, Rui-Ren Wang, Gene Hsiang Lee and Shie-Ming Peng\*

**Experimental and theoretical examinations of n→σ\* negative hyperconjugation in pyridinium dichlorophosphinomethylide**

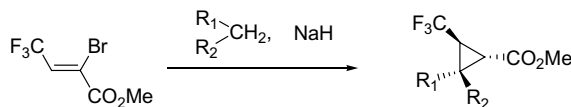
pp 7771–7773

Raj K. Bansal,\* Neelima Gupta, Shreeyukta Singh, K. Karaghiosoff, P. Mayer and M. Vogt

**Stereospecific synthesis of trifluoromethyl-substituted polyfunctionalized cyclopropanes**

pp 7775–7777

Yi Wang, Xiaoming Zhao, Youhua Li and Long Lu\*



**Synthetic studies towards oxazinins. An expedient first total synthesis and proof of the absolute stereochemistry of oxazinin-3**

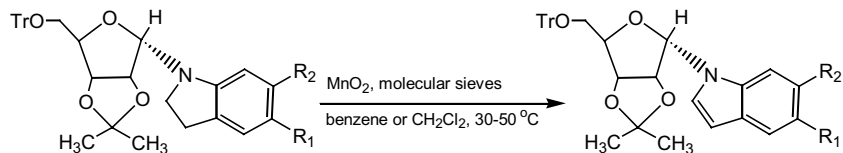
pp 7779–7781

Elias A. Couladouros,\* Vassilios I. Moutsos and Emmanuel N. Pitsinos

**Low temperature dehydrogenation of  $\alpha$ -indoline nucleosides**

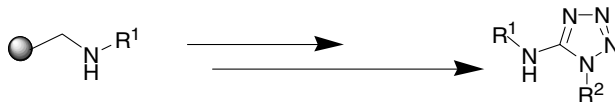
pp 7783–7786

Tilak Chandra, Shawn Zou and Kenneth L. Brown\*

**Solid-phase synthesis of 5-aminotetrazoles**

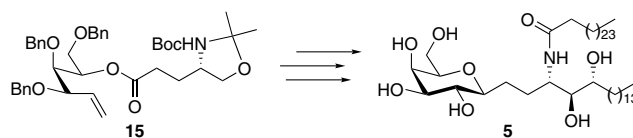
pp 7787–7789

Yongping Yu,\* John M. Ostresh and Richard A. Houghten\*

**Synthesis and anti-tumor activity of  $\beta$ -C-glycoside analogs of the immunostimulant KRN7000**

pp 7791–7794

Mani Raj Chaulagain, Maarten H. D. Postema,\* Fred Valeriote and Halina Pietraszkwicz

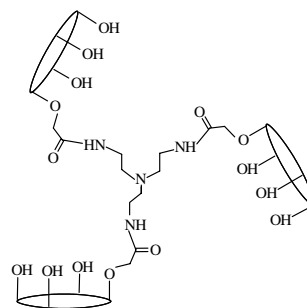


**Hyperbranched molecules based on calixarenes**

Najah Cheriaa, Rym Abidi\* and Jacques Vicens\*

pp 7795–7799

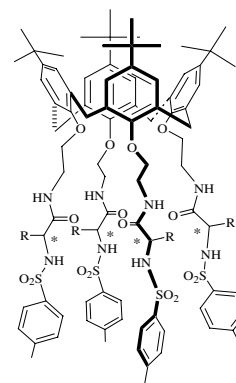
The synthesis of the diamide derived from tris(2-aminoethyl)amine and monocarboxymethylcalix[4]arene provides a starting material useful for the preparation of a variety of hyperbranched molecules.

**Synthesis and structure of lower rim C-linked tetra-*N*-tosyl peptidocalix[4]arenes**

Sofiane Ben Sdira, Roselyne Baudry, Caroline P. Felix,\* Marie-Béatrice A. Giudicelli and Roger J. Lamartine

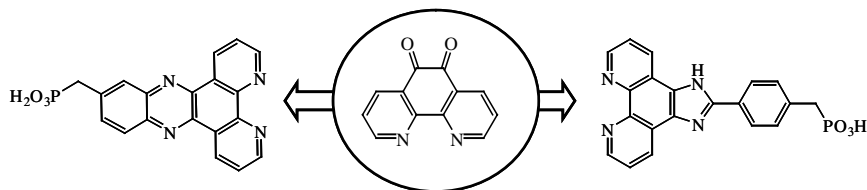
pp 7801–7804

Chiral *p*-*tert*-butylcalix[4]arenes perfunctionalised at the lower rim with amino acid residues have been prepared and show strong complexation towards  $\text{Cl}^-$ ,  $\text{Br}^-$ ,  $\text{HSO}_4^-$ ,  $\text{H}_2\text{PO}_4^-$  and *N*-tosyl-(*L*)-alaninate.

**Synthesis of monophosphonic acid ligands with a phenanthroline core**

Cédric R. Mayer,\* Maryline Hervé, Hélène Lavanant and Francis Sécheresse

pp 7805–7807

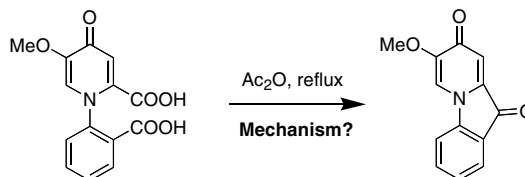


The efficient synthesis of two diimine ligands incorporating one benzyl phosphonate group and a phenanthroline core is described. These functionalized ligands constitute a new type of linkers in hybrid organic–inorganic materials based on inorganic oxides and metallic complexes.

**Mechanism of an unusual decarboxylative cyclization**

Andrew S. Kende,\* Olivier Henry and Zecheng Chen

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\*Corresponding author

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ISSN 0040-4039