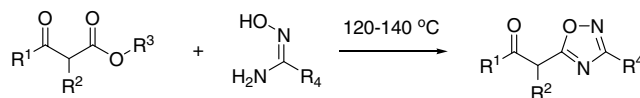


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**A one-pot synthesis of 3-substituted-5-carbonylmethyl-1,2,4-oxadiazoles from  $\beta$ -keto esters and amidoximes under solvent-free conditions** pp 2231–2235

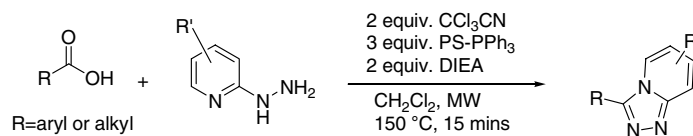
Wu Du,\* Quang Truong, Hongbo Qi, Yan Guo, Harry R. Chobanian, William K. Hagmann and Jeffrey J. Hale



Herein we report a high yielding one-pot 'green' synthesis of 3-substituted-5-carbonylmethyl-1,2,4-oxadiazoles from readily available  $\beta$ -keto esters and amidoximes under simple and convenient solvent-free conditions. No additional base is needed. The reaction likely goes through an acyl ketene intermediate.

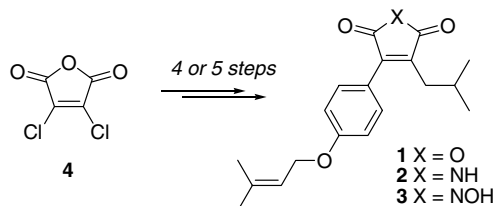
**A simple and efficient automatable one step synthesis of triazolopyridines from carboxylic acids** pp 2237–2240

Ying Wang,\* Kathy Sarris, Daryl R. Sauer and Stevan W. Djuric



**A concise synthesis of maleic anhydride and maleimide natural products found in *Antrodia camphorata*** pp 2241–2244

Scott G. Stewart,\* Marta E. Polomska and Rou Wei Lim

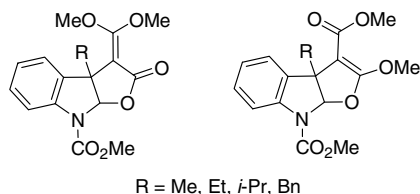


Starting from 3,4-dichloromaleic anhydride **4** 4 or 5 step syntheses of the natural products, maleic anhydride **1** and maleimides **2** and **3**, have been developed.

**Trapping enols of esters and lactones with diazomethane**

pp 2245–2249

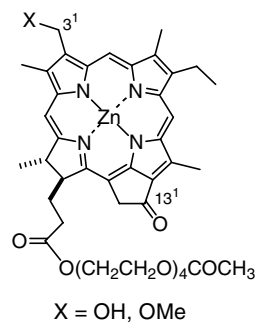
Martha S. Morales-Ríos,\* Perla Y. López-Camacho, Oscar R. Suárez-Castillo and Pedro Joseph-Nathan

**Aqueous self-aggregates of amphiphilic zinc 3<sup>1</sup>-hydroxy- and 3<sup>1</sup>-methoxy-chlorins for supramolecular light-harvesting systems**

pp 2251–2254

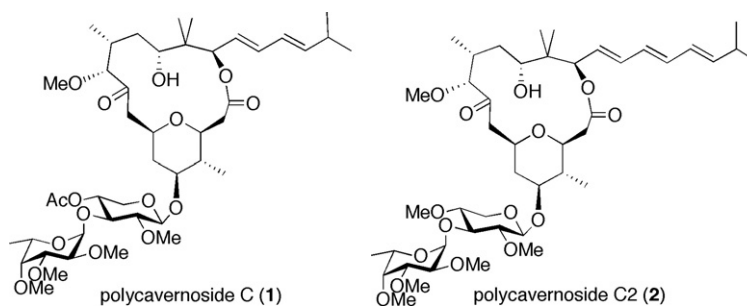
Tomohiro Miyatake,\* Shuntaro Tanigawa, Syuusaku Kato and Hitoshi Tamiaki

Aqueous aggregates of zinc 3<sup>1</sup>-hydroxy- and 3<sup>1</sup>-methoxy-13<sup>1</sup>-oxo-chlorins possessing a hydrophilic tetraoxyethylene chain were prepared. Synthetic zinc 3<sup>1</sup>-methoxy-chlorin formed a well-ordered aggregate without intermolecular hydrogen bonding which has been widely accepted in most structural models for BChl-*c*, *d*, *e* aggregates in a major light-harvesting antenna of green photosynthetic bacteria, chlorosome.

**Polycavernoside C and C2, the new analogs of the human lethal toxin polycavernoside A, from the red alga, *Gracilaria edulis***

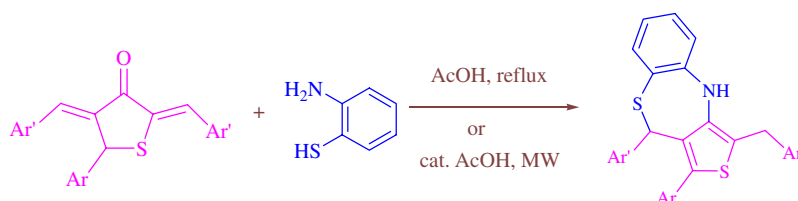
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**A facile tandem protocol for the regioselective synthesis of novel thienobenzothiazepines**

pp 2261–2265

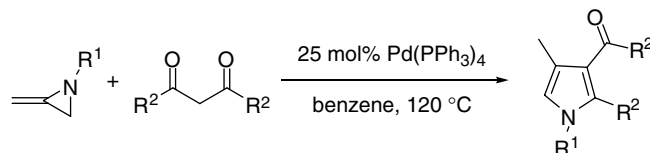
Subramanian Vedhanarayanan Karthikeyan and Subbu Perumal\*



**Synthesis of 1,2,3,4-tetrasubstituted pyrrole derivatives via the palladium-catalyzed reaction of 1,3-diketones with methyleneaziridines**

pp 2267–2270

Kalum K. A. D. S. Kathriarachchi, Amal I. Siriwardana, Itaru Nakamura\* and Yoshinori Yamamoto



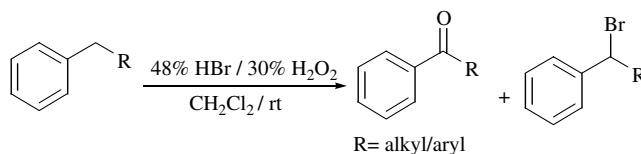
The palladium-catalyzed reaction of 1,3-diketones with methyleneaziridines produced the corresponding 1,2,3,4-tetrasubstituted pyrroles in good to high yields.



**A simple synthetic protocol for oxidation of alkyl-arenes into ketones using a combination of HBr–H<sub>2</sub>O<sub>2</sub>**

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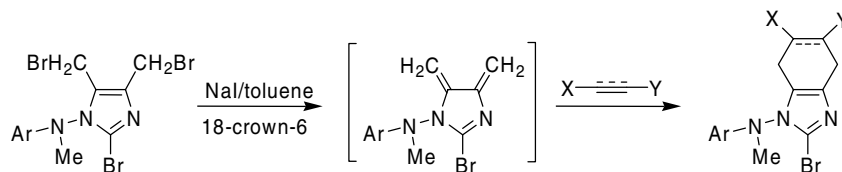
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**The first application of an imidazole *o*-quinodimethane in Diels–Alder reactions leading to the synthesis of benzimidazoles**

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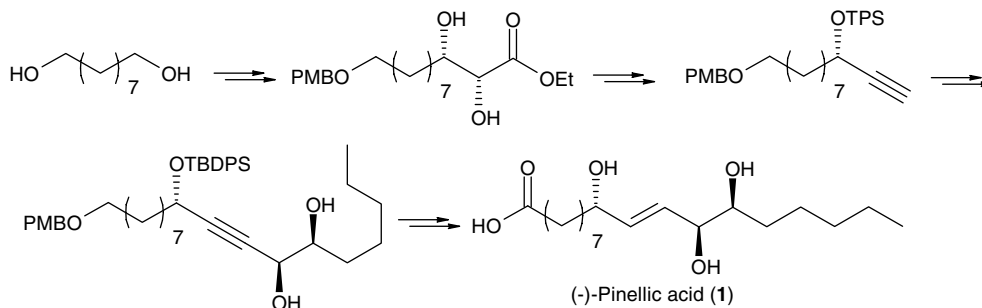
Constantinos Neochoritis, Despina Livadiotou, Julia Stephanidou-Stephanatou and Constantinos A. Tsoleridis\*



**Enantioselective synthesis of (–)-pinellic acid**

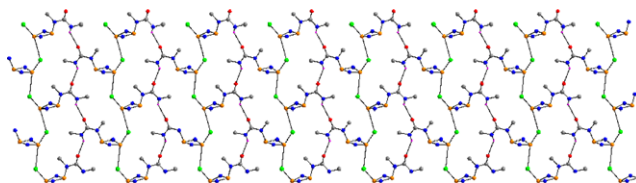
pp 2279–2282

S. Vasudeva Naidu and Pradeep Kumar\*



**Mono- and di-substituted urea derivatives of cyclodiphosphazane: [CIP( $\mu$ -N<sup>t</sup>Bu)<sub>2</sub>PN(Me)CON(H)Me] and [Me(H)NCON(Me)P( $\mu$ -N<sup>t</sup>Bu)<sub>2</sub>] pp 2283–2285**

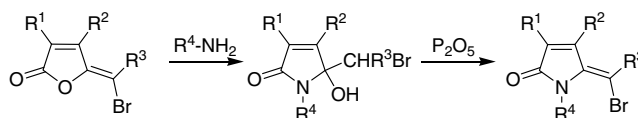
Devarajan Suresh, Maravanji S. Balakrishna\* and Joel T. Mague



*cis*-[CIP( $\mu$ -N<sup>t</sup>Bu)<sub>2</sub>] reacts with *N,N'*-dimethylurea to give both mono- and di-substituted derivatives [CIP( $\mu$ -N<sup>t</sup>Bu)<sub>2</sub>P(NMeCON(H)Me)] and [( $\mu$ -N<sup>t</sup>Bu)P(NMeCON(H)Me)<sub>2</sub>]. The structure of [CIP( $\mu$ -N<sup>t</sup>Bu)<sub>2</sub>P(NMeCON(H)Me)] shows rare non-bonded P...Cl and intermolecular hydrogen bonding interactions leading to a 2D-sheet like structure.

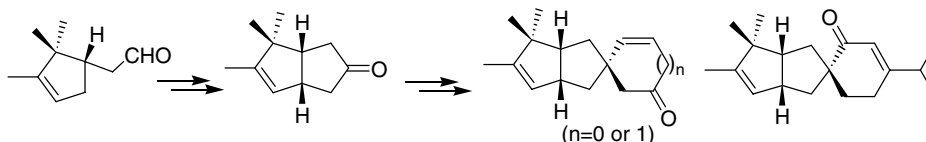
**An efficient lactamization of fimbrolides to novel 1,5-dihydropyrrol-2-ones pp 2287–2290**

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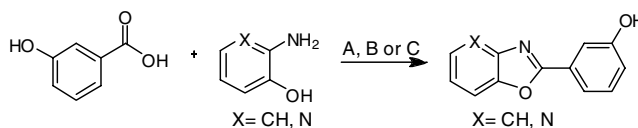
**Synthetic approaches to komarovspiranes. Enantiospecific synthesis of bicyclo[3.3.0]octanespiro[3.1]-cyclohexanes pp 2291–2294**

A. Srikrishna\* and B. Beeraiiah



**A rapid method for the preparation of 2-substituted oxazolo[4,5-*b*]pyridines using microwave-assisted direct condensation reactions pp 2295–2298**

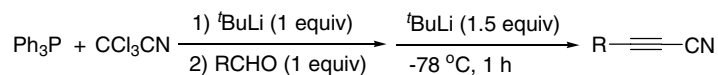
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pp 2299–2301

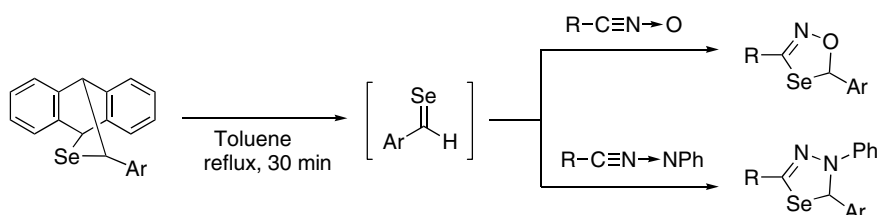
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**An efficient 1,3-dipolar cycloaddition between aromatic selenoaldehydes and nitrile oxides or nitrile imines: an easy access to selenium-containing five-membered heterocyclic ring system**

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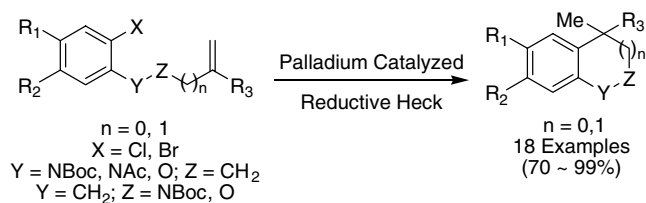
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**Synthesis of heterocycles via ligand-free palladium catalyzed reductive Heck cyclization**

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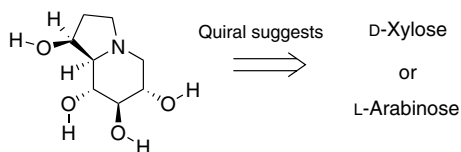
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**QUIRAL: a computer program for the synthesis of chiral molecules from sugars**

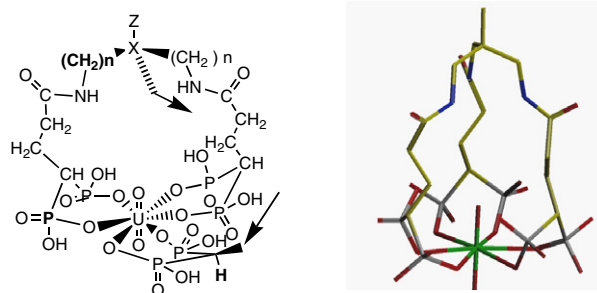
pp 2311–2313

Jean-Marc Nuzillard\* and Arnaud Haudrechy

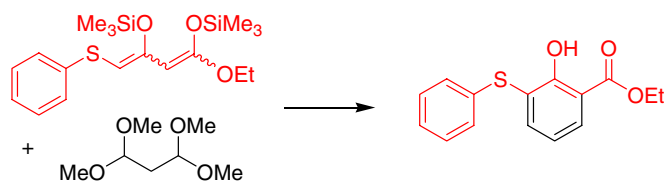


**Synthetic strategy of new powerful tris-bisphosphonic ligands for chelation of uranyl, iron, and cobalt cations** pp 2315–2319

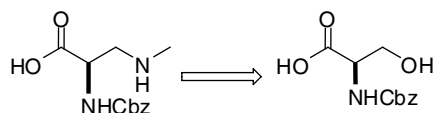
Ramon Burgada,\* Théodorine Bailly, Thierry Prangé and Marc Lecouvey


**Regioselective synthesis of diaryl sulfides by [3+3] cyclizations of 1,3-bis(trimethylsilyloxy)-1,3-dienes** pp 2321–2323

Muhammad A. Rashid, Helmut Reinke and Peter Langer\*

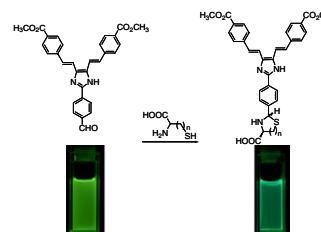

**One-pot synthesis of *N*-Cbz-*L*-BMAA and derivatives from *N*-Cbz-*L*-serine** pp 2325–2327

Sidnei Moura and Ernani Pinto\*


**Novel Y-type two-photon active fluorophore: synthesis and application in fluorescent sensor for cysteine and homocysteine** pp 2329–2333

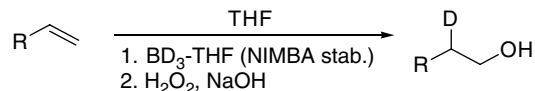
Meng Zhang, Manyu Li, Qiang Zhao, Fuyou Li,\* Dengqing Zhang, Jianping Zhang,\* Tao Yi and Chunhui Huang\*

A novel heterocycle-based Y-shaped two-photon active material, which shows intense single- and two-photon excited fluorescence, has been synthesized and investigated as a potential fluorescent sensor for cysteine and homocysteine.



**New amine-stabilized deuterated borane–tetrahydrofuran complex (BD<sub>3</sub>–THF): convenient reagent for deuterium incorporations** pp 2335–2337

Robert C. Todd, M. Mahmum Hossain,\* Kanth V. Josyula, Peng Gao,\* John Kuo and C. T. Tan



Convenient methods for the preparation of BD<sub>3</sub>–THF complex were developed. Certain amines stabilize the BD<sub>3</sub>–THF for long-term storage. Regioselectivity studies were carried out with the new amine-stabilized BD<sub>3</sub>–THF with representative olefins. Hydroboration of olefins provides a convenient tool for making corresponding deuterated alcohols after oxidation.

**Microwave assisted, palladium catalyzed aminocarbonylations of heteroaromatic bromides using solid Mo(CO)<sub>6</sub> as the carbon monoxide source** pp 2339–2343

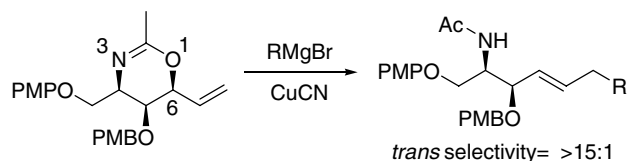
Michael A. Letavic\* and Kiev S. Ly



The direct conversion of a variety of heteroaromatic bromides into heteroaromatic amides is described. The reaction utilizes Mo(CO)<sub>6</sub> as the carbon monoxide source and is performed using microwave heating.

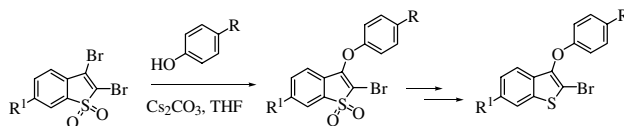
**Stereoselective synthesis of *trans*-olefins by the copper-mediated S<sub>N</sub>2' reaction of vinyl oxazines with Grignard reagents. Asymmetric synthesis of *D*-*threo*-sphingosines** pp 2345–2348

Om V. Singh and Hyunsoo Han\*

**Efficient synthesis of 3-oxygenated benzothiophene derivatives**

pp 2349–2352

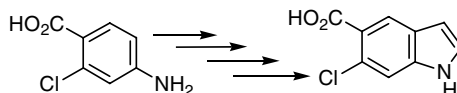
Fuyao Zhang,\* David Mitchell, Patrick Pollock and Tony Y. Zhang



An efficient synthesis of 2-bromo-3-aryloxybenzothiophene by a conjugate addition–elimination sequence of 2,3-dibromo benzothiophene dioxides with phenolic nucleophiles has been developed.

**Utility of Japp–Klingemann reaction for the preparation of 5-carboxy-6-chloroindole via Fischer indole protocol** pp 2353–2356

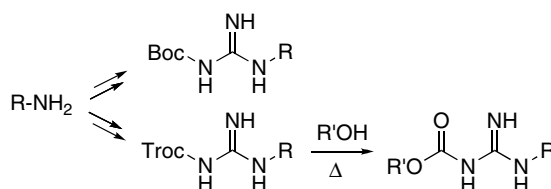
Yihui Chen, Masayuki Shibata, Manju Rajeswaran, Thamarapu Srikrishnan, Sundee Dugar and Ravindra K. Pandey\*



5-Carboxy-6-chloroindole, a precursor for p38 kinase inhibitor, was prepared from 4-amino-2-chloro-3-iodobenzoic acid by following the Japp–Klingemann synthetic approach. The structures of the key intermediates were also confirmed by X-ray analyses. Computational analysis was helpful in understanding the importance of the substituents at the cyclization step of the synthesis.

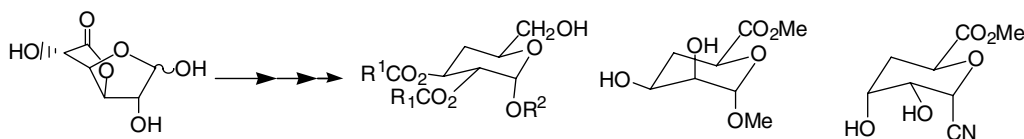

**Preparation of *N*-alkyl-*N'*-carboalkoxy guanidines: unexpected effective trans-alkoxylation transforming the 2,2,2-trichloroethoxycarbonyl into various carbamates** pp 2357–2359

Cosima Schroif-Grégoire, Karine Barale, Anne Zaparucha\* and Ali Al-Mourabit\*


**Convenient syntheses of deoxyribose sugars from glucuronolactone**

pp 2361–2364

Deborah Stanford (nee Sinnott) and Andrew V. Stachulski\*



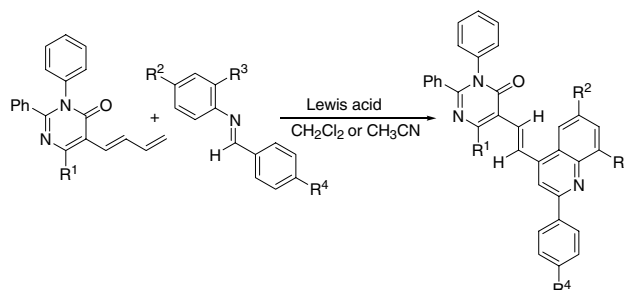
D-Glucuronolactone is a versatile starting material for the synthesis of a number of deoxy sugars, as shown. The key steps are base-catalysed elimination from a 1β-tetraacylated methyl glucopyranuronate, face-selective hydrogenation, formation and reaction of a glycol and dihydroxylation.


**Lewis acid promoted aza Diels–Alder reactions of acyclic unactivated 5-dienyl pyrimidinones with *N*-arylimines: synthesis of novel quinoline derivatives**

pp 2365–2368

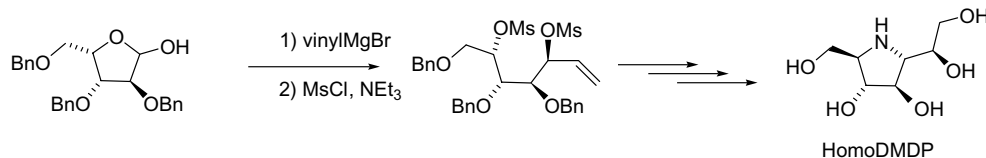
Gaurav Bhargava, Vipin Kumar and Mohinder P. Mahajan\*

The chemo- as well as regioselective aza Diels–Alder reactions of 5-dienyl pyrimidinones with *N*-arylimines in the presence of Lewis acids resulting in novel quinoline derivatives are reported.

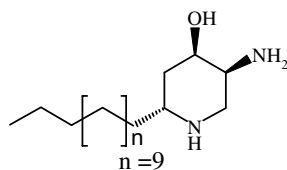




**A concise synthesis of 2,5-dideoxy-2,5-imino-D-mannitol (DMDP) and HomoDMDP from L-xylose** pp 2369–2372  
 Jean-Bernard Behr\* and Georges Guillerm



**Asymmetric synthesis of (+)-tetrahydropseudodistomin** pp 2373–2375  
 S. Chandrasekhar,\* S. Shameem Sultana, N. Kiranmai and Ch. Narsihmulu

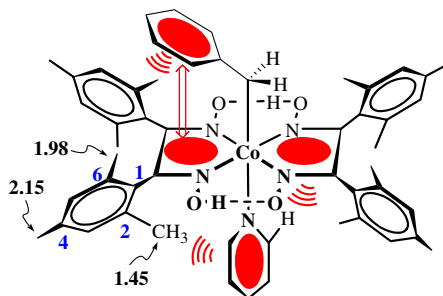


(+)-tetrahydropseudodistomin

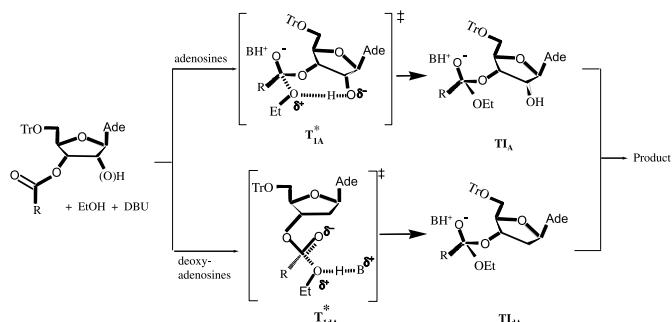
An efficient asymmetric synthesis of (+)-tetrahydropseudodistomin is described using the Maruoka asymmetric allylation and Sharpless asymmetric dihydroxylation as key steps for the generation of chirality at C-2, -4, and -5 of the trisubstituted piperidine ring.

**The interactions between axial and equatorial ligands in cobaloximes: NMR changes** pp 2377–2379  
 Debaprasad Mandal, Preeti Chadha, Moitree Laskar, Mouchumi Bhuyan and B. D. Gupta\*

All three methyl groups in mesitylene become nonequivalent in the <sup>1</sup>H NMR spectra of PhCH<sub>2</sub>Co(dmestgH)<sub>2</sub>Py, PhCH<sub>2</sub>(SO<sub>2</sub>)Co(dmestgH)<sub>2</sub>Py, and PhCH<sub>2</sub>(O<sub>2</sub>)Co(dmestgH)<sub>2</sub>Py, due to weak interactions between the axial benzyl and the equatorial dioxime ligands.



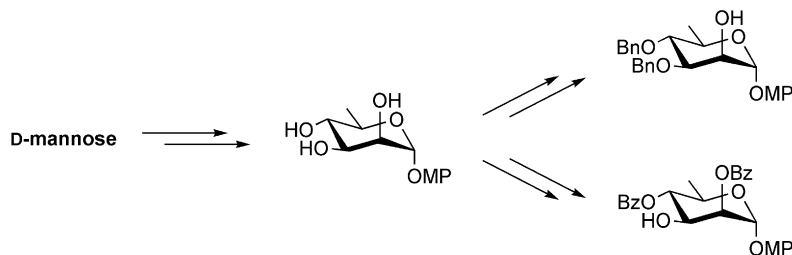
**Linear free energy relationships and kinetic isotope effects reveal the chemistry of the Ado 2'-OH group** pp 2381–2384  
 Mohamed M. Changelov\* and Dimiter D. Petkov



**Practical synthesis of valuable D-rhamnoside building blocks for oligosaccharide synthesis**

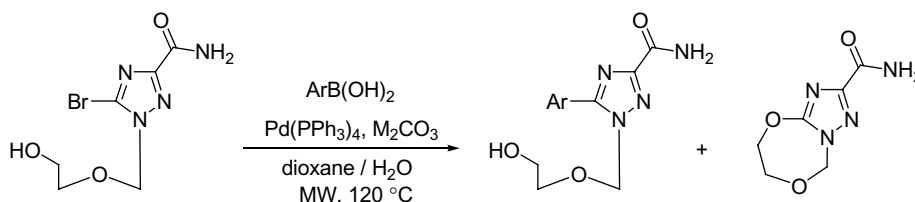
pp 2385–2388

Régis Fauré, Tze Chieh Shiao, Sonia Damerval and René Roy\*

**Direct synthesis of 5-aryltriazole acyclonucleosides via Suzuki coupling in aqueous solution**

pp 2389–2393

Ruizhi Zhu, Fanqi Qu, Gilles Quéléver and Ling Peng\*

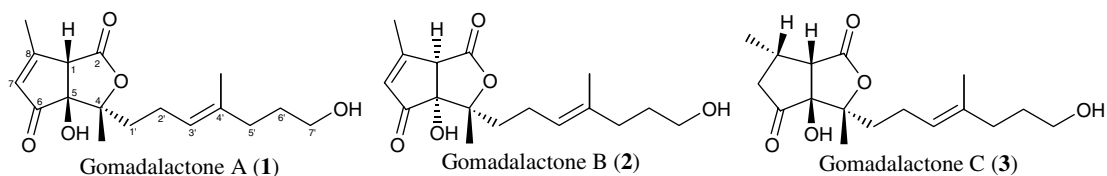


5-Aryltriazole acyclonucleosides with various aromatic groups on the triazole ring were synthesized via the Suzuki coupling reaction in aqueous solution and promoted by microwave irradiation. Careful optimization of the reaction conditions led in good to excellent yields to the Suzuki products, while the cyclization side-reaction could be completely suppressed.

**Gomadalactones A, B, and C: novel 3-oxabicyclo[3.3.0]octane compounds in the contact sex pheromone of the white-spotted longicorn beetle, *Anoplophora malasiaca***

pp 2395–2400

Hiroe Yasui,\* Toshiharu Akino, Tetsuya Yasuda, Midori Fukaya, Sadao Wakamura and Hiroshi Ono\*

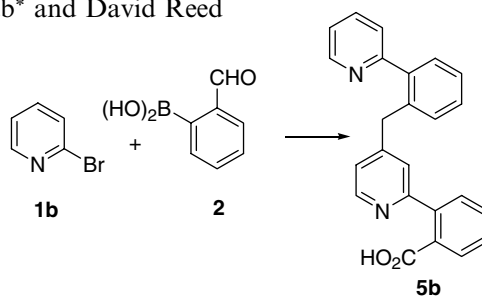


Female extract of the white-spotted longicorn beetle *Anoplophora malasiaca* showed activity as contact sex pheromone to males. The activity was evidenced only when three fractions were blended. Relative structures of three active gomadalactones isolated from EtOAc fraction were elucidated to give a novel oxabicyclo[3.3.0]octane skeleton with an aliphatic chain.

**Suzuki–Miyaura coupling of 2-bromopyridine with 2-formylphenylboronic acid**

pp 2401–2403

Fiona M. McMillan, Hamish McNab\* and David Reed

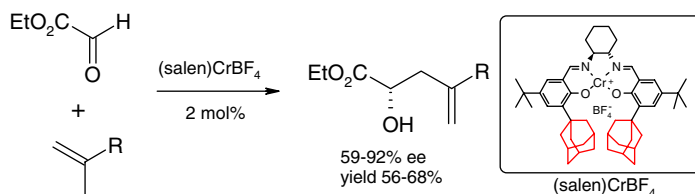


Suzuki–Miyaura coupling of 2-bromopyridine **1b** with 2-formylphenylboronic acid **2** under standard conditions gives 2-[4-(2-pyridin-2-yl-benzyl)-pyridin-2-yl]benzoic acid **5b**.

**Enantioselective glyoxylate-ene reactions catalysed by (salen)chromium(III) complexes**

pp 2405–2408

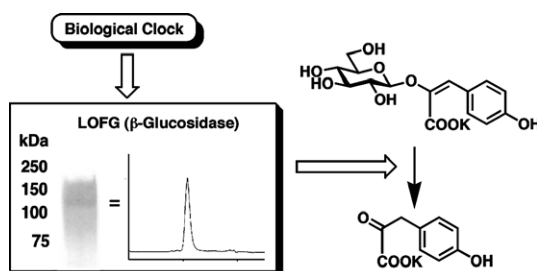
Wojciech Chaładaj, Piotr Kwiatkowski, Jakub Majer and Janusz Jurczak\*



**Affinity purification of the key enzyme of nyctinasty controlling the rhythm of leaf movement using gluconamidase ligand**

pp 2409–2413

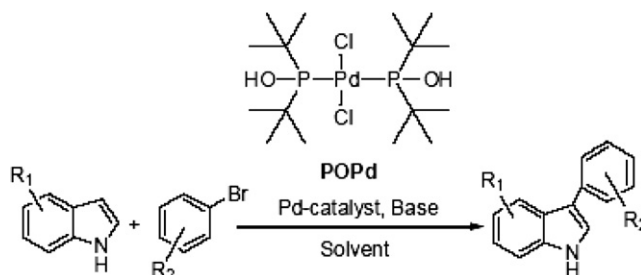
Eisuke Kato, Takehiko Sasaki, Tadahiro Kumagai and Minoru Ueda\*



**Direct palladium-catalyzed C-3 arylation of indoles**

pp 2415–2419

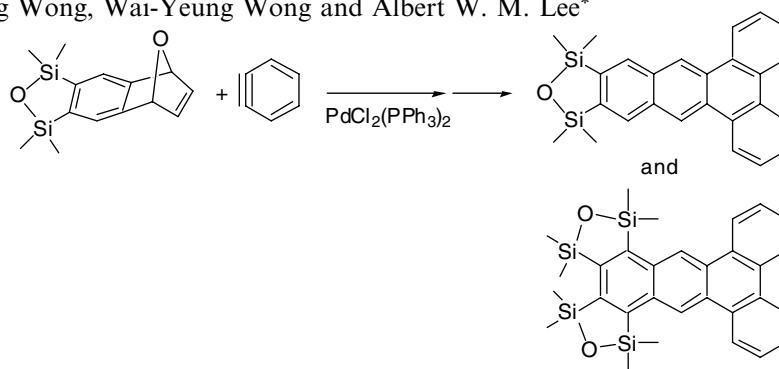
Zhiqiang Zhang,\* Zhizhi Hu, Zhixiao Yu, Peng Lei, Haijun Chi, Yue Wang and Ren He\*



**Synthesis and characterization of oxadisilole fused benzo[*b*]triphenylene**

pp 2421–2425

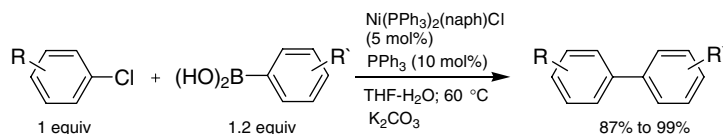
Ya-Li Chen, Man-Shing Wong, Wai-Yeung Wong and Albert W. M. Lee\*



**Nickel(II)–aryl complexes as catalysts for the Suzuki cross-coupling reaction of chloroarenes and arylboronic acids**

pp 2427–2430

Chen Chen and Lian-Ming Yang\*

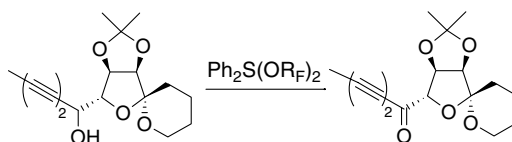


A general catalytic system involving  $\text{Ni}(\text{PPh}_3)_2(1\text{-naph})\text{Cl}$  and  $\text{PPh}_3$  proved to be highly effective for the Suzuki reaction of aryl chlorides under mild conditions.


**Synthetic studies of spiroketal enol ethers: an unexpected oxidation by Martin's sulfurane**

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