

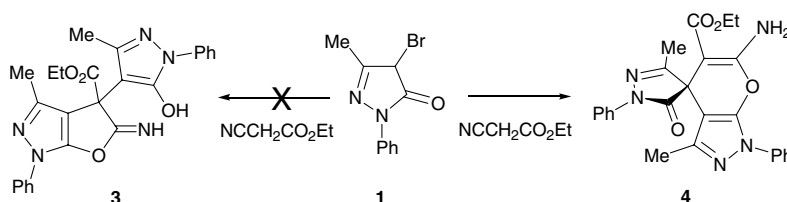
Contents

COMMUNICATIONS

Structural reassignment of an 'unusual' derivative of 3-methyl-5-phenylpyrazol-5-one (Edaravone)

pp 4107–4108

Jennifer Burgess and Peter J. Steel\*

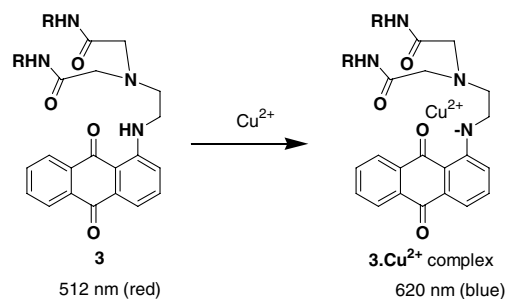


A diamide–diamine based  $\text{Cu}^{2+}$  chromogenic sensor for highly selective visual and spectrophotometric detection

pp 4109–4112

Navneet Kaur and Subodh Kumar\*

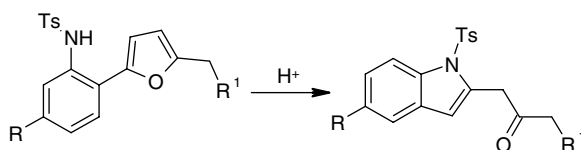
A diamide–diamine based sensor possessing anthracene-9,10-dione as a chromogenic moiety has been synthesized, which demonstrates a highly selective colour change from red to blue with  $\text{Cu}^{2+}$  for visual detection of  $\text{Cu}^{2+}$  (5–50  $\mu\text{M}$ ). The selective deprotonation of an aryl amine NH by  $\text{Cu}^{2+}$  is responsible for a bathochromic shift and significant colour change.



Furan as a 1,3-diketone equivalent: the second type furan recyclization applied to indole synthesis

pp 4113–4116

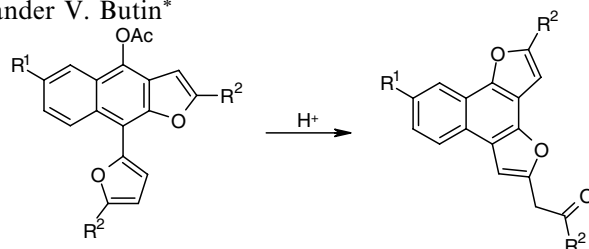
Alexander V. Butin



**Furan ring opening–furan ring closure: cascade rearrangement of novel 4-acetoxy-9-furylnaphtho[2,3-*b*]furans**

pp 4117–4120

Vladimir V. Mel'chin and Alexander V. Butin\*

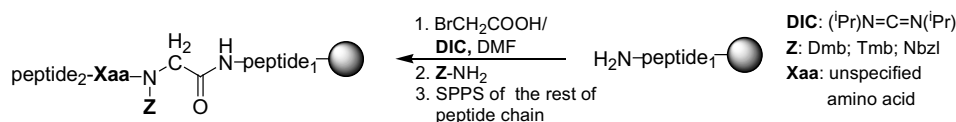


The cascade rearrangement of novel 4-acetoxy-9-furylnaphtho[2,3-*b*]furans leading to tetracyclic naphthodifurans derivatives has been developed. The reaction proceeds via double recyclization of both furan rings of the initial molecule, one of the furan rings serving as a 1,3-dicarbonyl compound equivalent.

**Synthesis of 'difficult' peptides free of aspartimide and related products, using peptoid methodology**

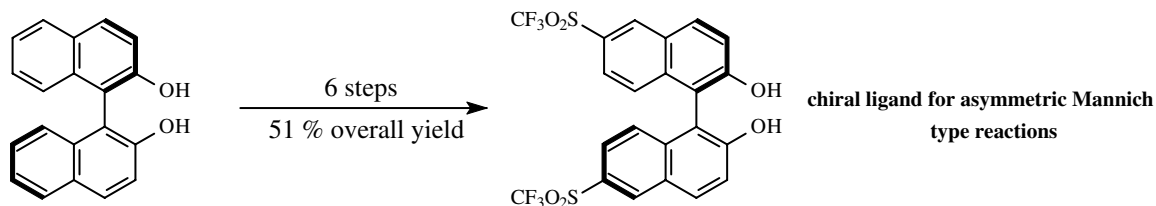
pp 4121–4124

Sotir Zahariev,\* Corrado Guarnaccia, Csaba I. Pongor, Luca Quaroni, Maša Čemažar and Sándor Pongor

**(*R*)-6,6'-Bis(trifluoromethanesulfonyl)-2,2'-dihydroxy-1,1'-binaphthyl: a new ligand for asymmetric synthesis**

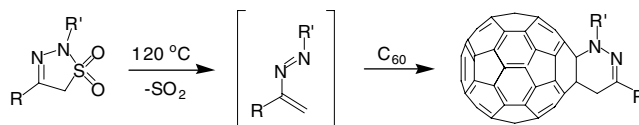
pp 4125–4128

Omar Mouhtady, Hafida Gaspard-Iloughmane, André Laporterie and Christophe Le Roux\*

**Heterocycloaddition of thermally generated 1,2-diaza-1,3-butadienes to [60]fullerene**

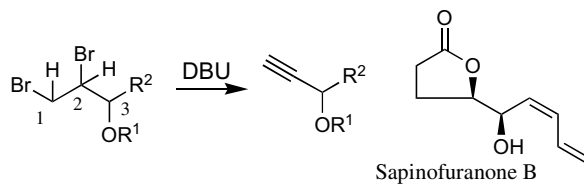
pp 4129–4131

Hai-Tao Yang, Guan-Wu Wang,\* Yu Xu and Jin-Chang Huang



## 1,2-Dibromoalkanes into alkynes by elimination reaction under DBU conditions and their application to total synthesis of sapinofuranone B

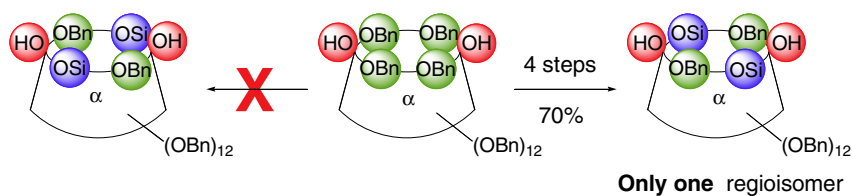
Noriki Kutsumura, Tadashi Yokoyama, Tadaaki Ohgiya and Shigeru Nishiyama\*



## Expeditious selective synthesis of primary rim tri-differentiated $\alpha$ -cyclodextrin

Olivia Bistri, Pierre Sinaÿ and Matthieu Sollogoub\*

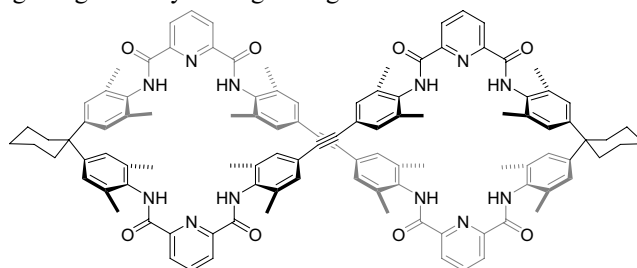
pp 4137–4139



## Synthesis and binding properties of a macrocycle with two binding subcavities

Kyoung-Jin Chang, Hye-Young Jang and Kyu-Sung Jeong\*

pp 4141–4144



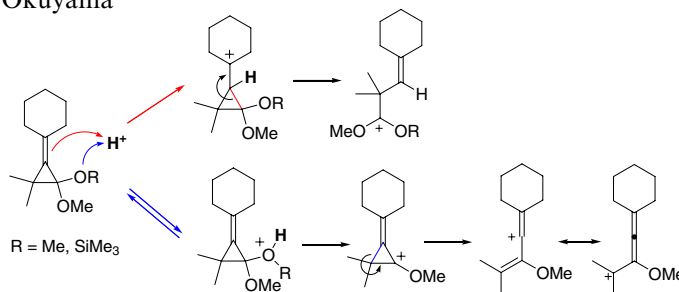
A macrocycle that possesses two binding subcavities was prepared and positive homotropic cooperativity was demonstrated on the binding event.

## Solvent-dependent regioselectivity of hydrogen chloride-mediated ring opening of alkylidene-cyclopropanone acetal

Morifumi Fujita,\* Shinji Hanagiri and Tadashi Okuyama\*

pp 4145–4148

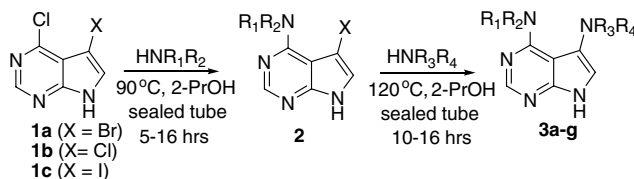
Regioselectivity of ring opening of alkylidene-cyclopropanone acetal with hydrogen chloride changes from >99:1 to <1:99 depending on the solvent. The switching may be controlled by competition of protonations of oxygen the and the olefinic carbon.



**A modular approach to 4,5-diaminopyrrolo[2,3-*d*]pyrimidines and 2,4,5-triaminopyrrolo[2,3-*d*]pyrimidines**

pp 4149–4151

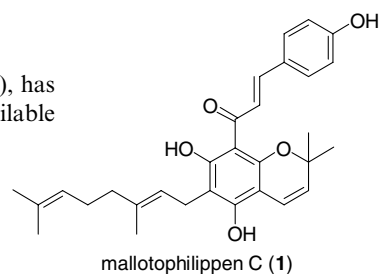
Michael V. Voronkov, Kunjian Gu, Simon D. P. Baugh\* and Michael R. Becker

**Total synthesis of mallotophilippen C**

pp 4153–4155

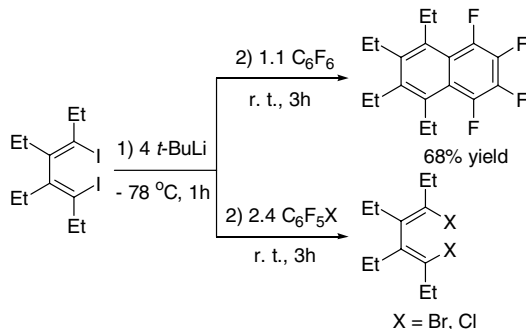
Yunfei Li, Yu Luo, Weigang Huang, Jingli Wang and Wei Lu\*

The first total synthesis of a bioactive natural product, mallotophilippen C (**1**), has been achieved. The synthesis was accomplished from commercially available phloroacetophenone (**4**) in 11 linear steps with an overall yield of 28%.

**Partially fluorinated naphthalene derivatives from 1,4-dilithio-1,3-dienes and C<sub>6</sub>F<sub>6</sub>**

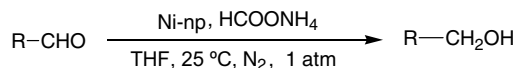
pp 4157–4160

Zhihui Wang, Chao Wang and Zhenfeng Xi\*

**Ni-nanoparticles: an efficient green catalyst for chemoselective reduction of aldehydes**

pp 4161–4165

Mazaahir Kidwai,\* Vikas Bansal, Amit Saxena, Ravi Shankar and Subho Mozumdar

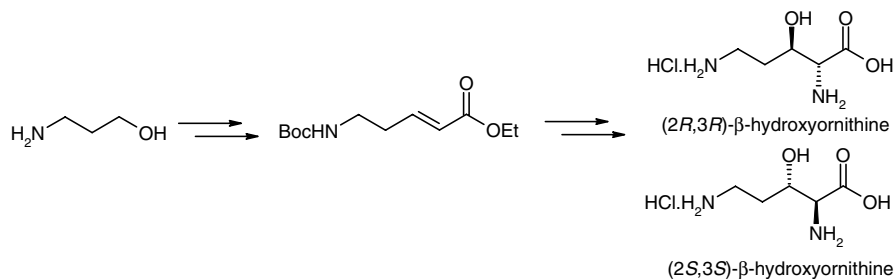


A novel method for reduction of aromatic and heteroaromatic aldehydes with ammonium formate using Ni-nanoparticles is described. The Ni-nanoparticles act as a green catalyst for selective reduction of the aldehydic group in the presence of other functional groups, viz.: -NO<sub>2</sub>, -CN and alkenes to give the corresponding alcohols in excellent yields.

**Enantioselective synthesis of (2*R*,3*R*)- and (2*S*,3*S*)-β-hydroxyornithine**

Satyendra Kumar Pandey and Pradeep Kumar\*

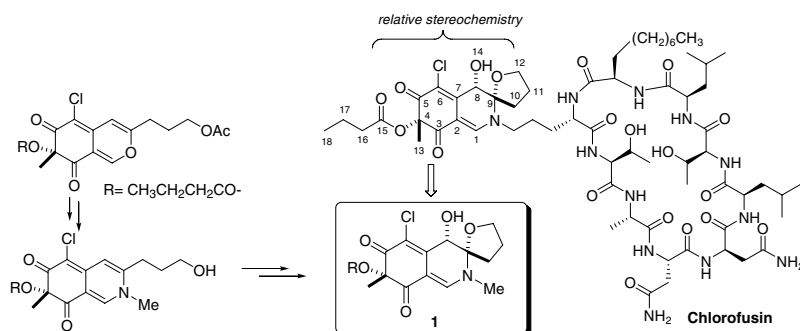
pp 4167–4169



**Bromoetherification-based strategy towards the spirocyclic chromophore of chlorofusin**

Wan-Guo Wei, Wen-Jian Qian, Yong-Xia Zhang and Zhu-Jun Yao\*

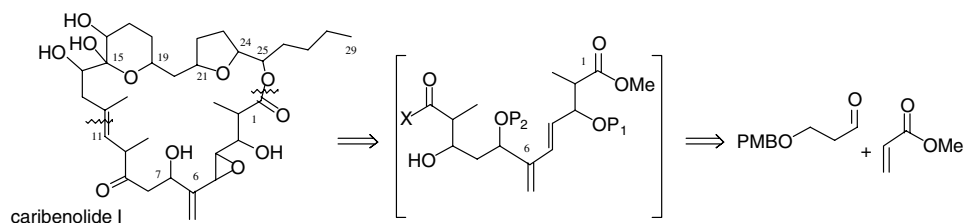
pp 4171–4174



**A Baylis–Hillman approach to the synthesis of C<sub>1</sub>–C<sub>11</sub> fragment of caribenolide I**

Matar Seck, Xavier Franck,\* Blandine Seon-Meniél, Reynald Hocquemiller and Bruno Figadère\*

pp 4175–4180

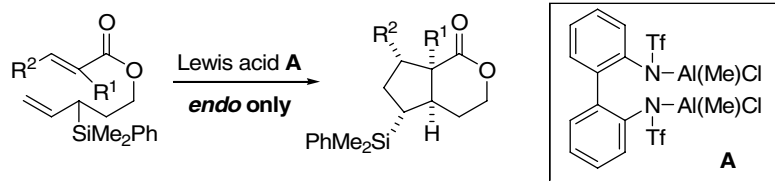


The C<sub>1</sub>–C<sub>11</sub> fragment of caribenolide I was prepared from 3-paramethoxybenzyloxypropanal, with an excellent control of the configuration of stereogenic centres. The key steps rely on an asymmetric aldolisation and a Baylis–Hillman reaction.

**Intramolecular [3+2] cycloaddition reaction of α,β-enoate derivatives having allylsilane parts: 1,1'-biphenyl-2,2'-di(triflyl)amide (BIPAM)+2Me<sub>2</sub>AlCl as a novel Lewis acid**

Akio Saito, Wataru Sakamoto, Hikaru Yanai and Takeo Taguchi\*

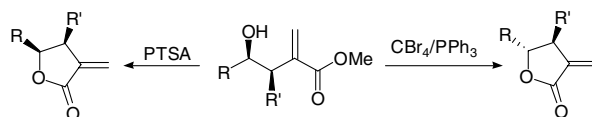
pp 4181–4185



**Baylis–Hillman chemistry: synthesis of *cis*- and *trans*- $\alpha$ -methylene- $\gamma$ -lactones**

pp 4187–4189

George W. Kabalka,\* Bollu Venkataiah and Chunlan Chen

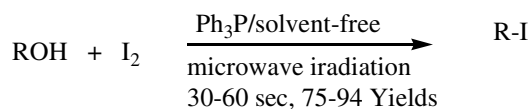


*syn*-Homoallylic alcohols prepared from Baylis–Hillman adducts react with CBr<sub>4</sub>/PPh<sub>3</sub> to give *trans*- $\alpha$ -methylene- $\gamma$ -lactones. Notably, the same alcohols yield the *cis*- $\alpha$ -methylene- $\gamma$ -lactones in the presence of traces of *p*-toluenesulfonic acid.

**Iodination of alcohols using triphenylphosphine/iodine under solvent-free conditions using microwave irradiation**

pp 4191–4196

Abdol Reza Hajipour,\* Ali Reza Falahati and Arnold E. Ruoho

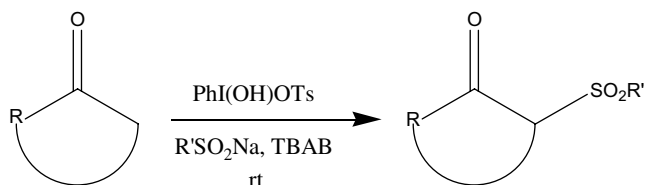


R = Aliphatic, Benzylic and Allylic

**A facile one-pot synthesis of  $\beta$ -keto sulfones from ketones under solvent-free conditions**

pp 4197–4199

Dalip Kumar,\* Swapna Sundaree, V. S. Rao and Rajender S. Varma\*

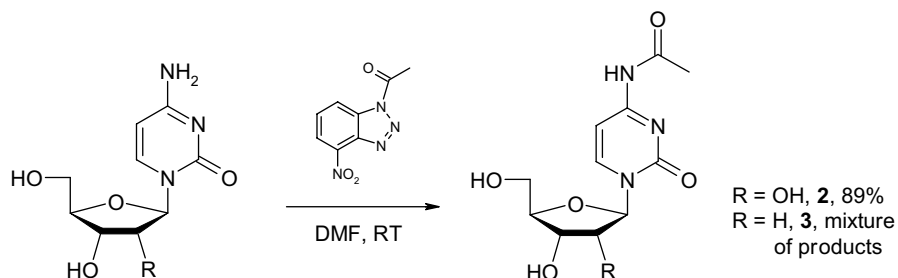


An easy solvent-free method is described for the conversion of ketones into  $\beta$ -keto sulfones in high yields via in situ generation of  $\alpha$ -tosyloxyketones, followed by nucleophilic substitution with sodium arene sulfinate in the presence of tetra-butylammonium bromide.

**Electron-deficient benzotriazoles for the selective N-acetylation of nucleosides**

pp 4201–4203

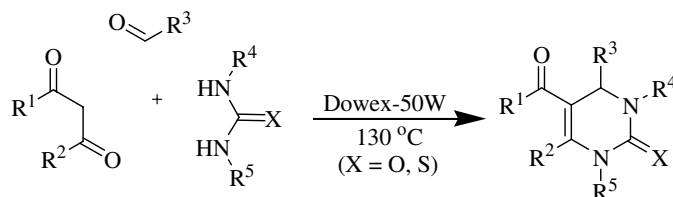
Andrew K. Reid, Callum J. McHugh, Graham Richie and Duncan Graham\*



**Dowex-promoted general synthesis of *N,N'*-disubstituted-4-aryl-3,4-dihydropyrimidinones using a solvent-free Biginelli condensation protocol**

pp 4205–4207

Kamaljit Singh,\* Divya Arora and Sukhdeep Singh

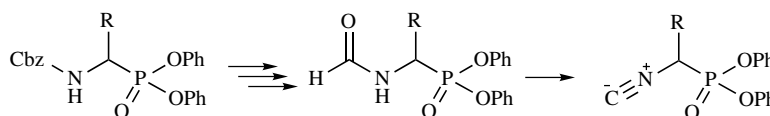


Dowex-50W ion exchange resin-promoted solvent-free heating of an intimate mixture of an aldehyde, an active methylene compound and *N,N'*-dimethylurea furnished the title compounds in moderate to good yields.

**Synthesis of isocyanide derivatives of  $\alpha$ -aminoalkylphosphonate diphenyl esters**

pp 4209–4211

Marcin Sieńczyk,\* Maciej Kliszczak and Józef Oleksyszyn

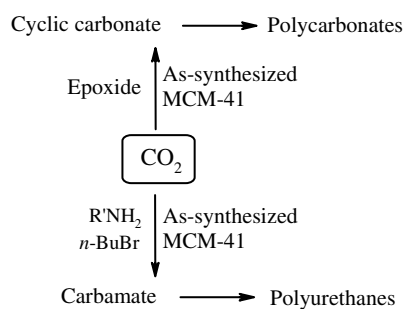


The synthesis of isocyanide derivatives of  $\alpha$ -aminoalkylphosphonate diphenyl esters as well as their possible application in multicomponent condensations are presented.

**Syntheses of polycarbonate and polyurethane precursors utilizing CO<sub>2</sub> over highly efficient, solid as-synthesized MCM-41 catalyst**

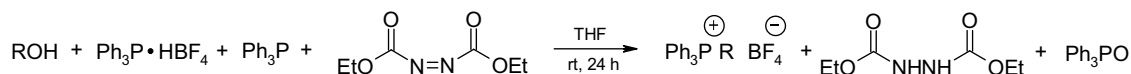
pp 4213–4217

R. Srivastava, D. Srinivas\* and P. Ratnasamy\*

**A new application of the Mitsunobu reaction in the synthesis of phosphonium salts**

pp 4219–4220

Roman Mazurkiewicz,\* Tadeusz Gorewoda, Anna Kuźnik and Mirosława Grymel

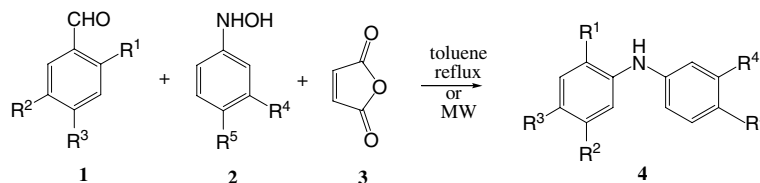


The Mitsunobu reaction of methanol or primary alcohols with triphenylphosphonium tetrafluoroborate in the presence of DEAD and Ph<sub>3</sub>P gives the respective alkyltriphenylphosphonium salts in good yields. The reaction also worked for the conversion of *N*-acyl-2-hydroxyglycinates into *N*-acyl-2-triphenylphosphonioglycinates.

**Unexpected multicomponent reaction of 2/4-methoxyarylaldehydes with arylhydroxylamines and maleic anhydride: a novel synthesis of unsymmetrical diarylamines**

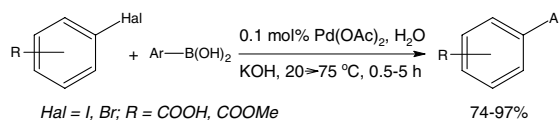
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V. Sridharan, K. Karthikeyan and S. Muthusubramanian\*


**An improved protocol for ligandless Suzuki–Miyaura coupling in water**

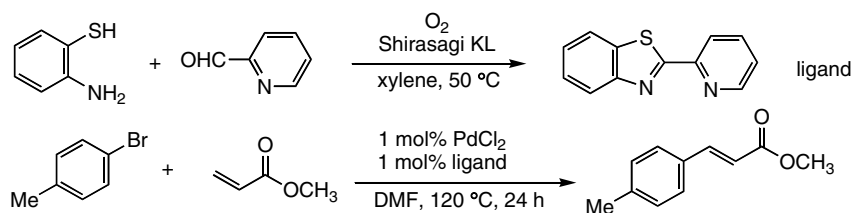
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Dmitrii N. Korolev and Nikolay A. Bumagin\*


**A simple synthesis of 2-arylbenzothiazoles and its application to palladium-catalyzed Mizoroki–Heck reaction**

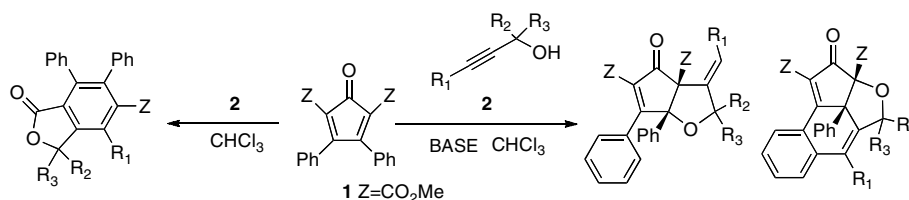
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Yuka Kawashita, Chigusa Ueba and Masahiko Hayashi\*


**Cyclization reaction of cyclopentadienone with prop-2-yn-1-ol in priority to Diels–Alder reaction**

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Koki Yamaguchi, Kenji Utsumi, Yasuyuki Yoshitake\* and Kazunobu Harano

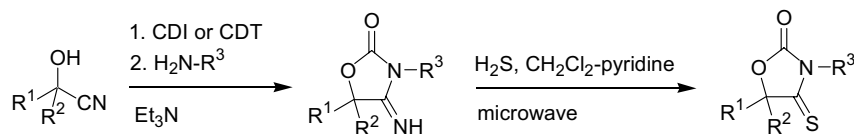




**Rapid microwave assisted synthesis of 3-substituted 4-thioxo-oxazolidin-2-ones**

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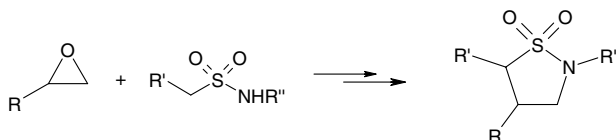
Thomas Kurz,\* Mehdi Khankischpur and Khalid Widyana



**Regioselective synthesis of N-substituted-4-substituted isothiazolidine-1,1-dioxides**

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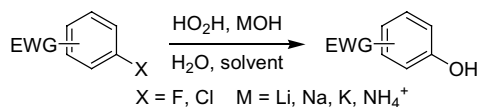
Ed Cleator,\* Faye J. Sheen, Matthew M. Bio, K. M. Jos Brands, Antony J. Davies and Ulf-H. Dolling



**Hydrogen peroxide promoted hydroxylation of haloarenes and heteroarenes**

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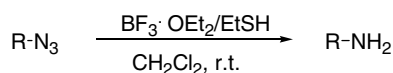
William R. Cantrell, Jr., William E. Bauta\* and Tracy Engles



**Selective reduction of aromatic azides in solution/solid-phase and resin cleavage by employing BF<sub>3</sub>·OEt<sub>2</sub>/EtSH. Preparation of DC-81**

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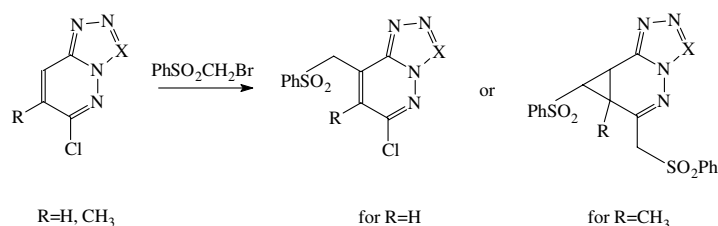
Ahmed Kamal,\* N. Shankaraiah, K. Laxma Reddy and V. Devaiah



## Vicarious nucleophilic substitution reactions in azolopyridazines controlled by methyl substituents

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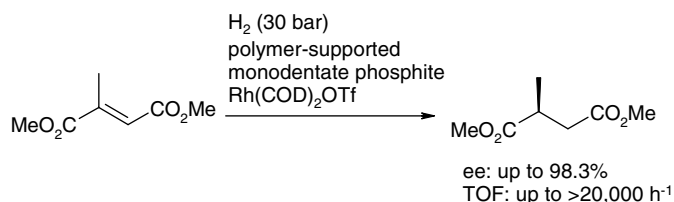
Anna Katrusiak



## Polymer-supported monodentate phosphite ligands for asymmetric hydrogenation

pp 4263–4266

Weiping Chen,\* Stanley M. Roberts and John Whittall

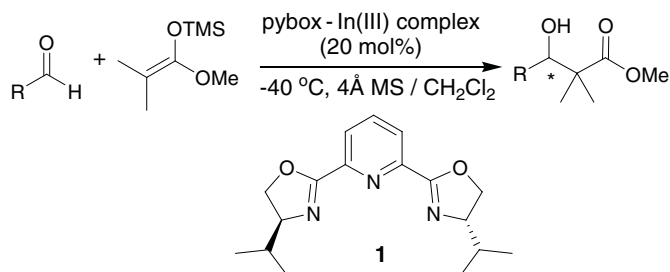


## Catalytic enantioselective Mukaiyama aldol reaction via a chiral indium(III)–pybox complex

pp 4267–4269

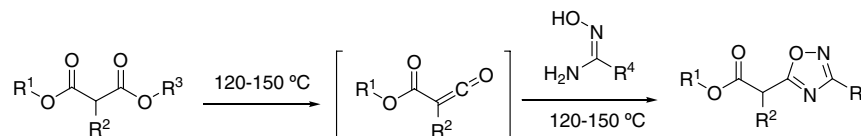
Fan Fu, Yong-Chua Teo and Teck-Peng Loh\*

A chiral indium(III) complex prepared from indium triflate and pybox ligand **1** has been developed to afford good yields and enantioselectivities (up to 92% ee) in the addition of (1-methoxy-2-methylpropenyloxy)-trimethylsilane to various aromatic and aliphatic aldehydes via the Mukaiyama aldol reaction.

A 'one-pot' synthesis of  $\alpha$ -1,2,4-oxadiazolo esters from malonic diesters and amidoximes under solvent-free conditions

pp 4271–4274

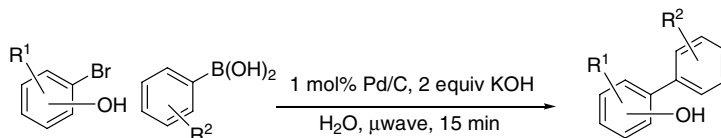
Wu Du,\* William K. Hagmann and Jeffrey J. Hale



**An expeditious aqueous Suzuki–Miyaura method for the arylation of bromophenols**

pp 4275–4279

Joel S. Freundlich\* and Howard E. Landis

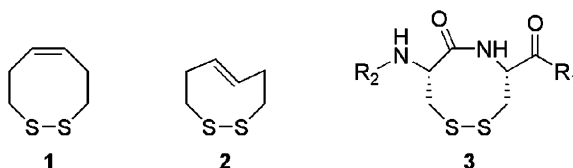


The development of a novel Suzuki–Miyaura method has been achieved to allow the efficient arylation of bromophenols, featuring microwave reaction technology, inexpensive Pd/C as the catalyst and water as the solvent.

**Synthesis and properties of disulfide-bond containing eight-membered rings**

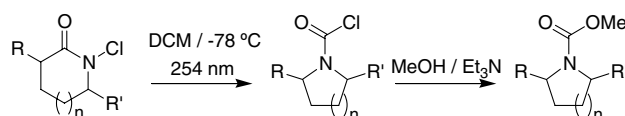
pp 4281–4284

Erik L. Ruggles and Robert J. Hondal\*

**Ring contraction of *N*-chlorolactams, a novel rearrangement**

pp 4285–4288

Alexandre Drouin and Jean Lessard\*

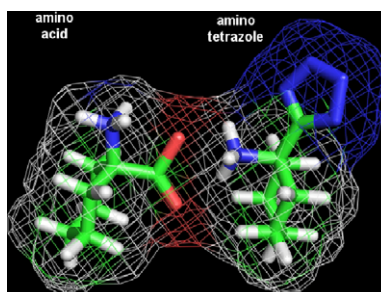


Upon photolysis in methylene chloride at  $-78\text{ }^{\circ}\text{C}$ , different *N*-chlorolactams underwent a novel ring contraction to the corresponding carbamoyl chlorides, which were converted to the methyl carbamates. The rearrangement is 100% stereoselective, occurring with retention of configuration at the migrating carbon center. The yields of isolated carbamates ranged from 40% to 57%, the other product being the parent lactam, 18% to 38%.

**1-Isocyanomethylbenzotriazole and 2,2,4,4-tetramethylbutylisocyanide—cleavable isocyanides useful for the preparation of  $\alpha$ -aminomethyl tetrazoles**

pp 4289–4291

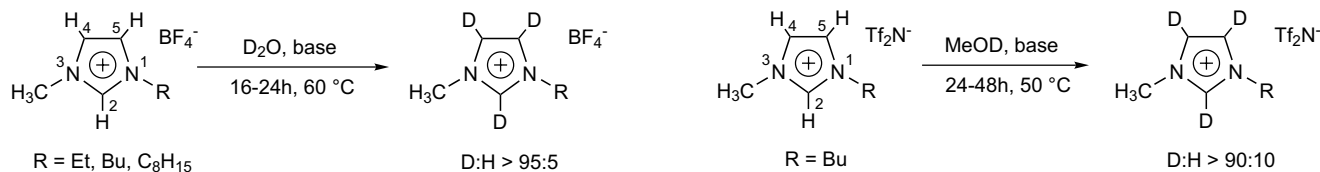
Alexander Dömling,\* Barbara Beck and Marina Magnin-Lachaux



## Transition-metal free ring deuteration of imidazolium ionic liquid cations

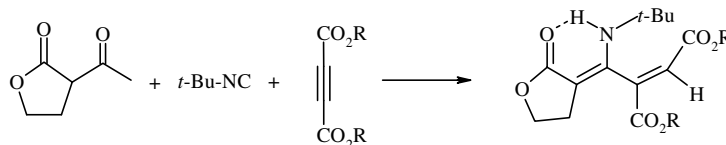
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Ralf Giernoth\* and Dennis Bankmann

Reaction of *tert*-butyl isocyanide and dialkyl acetylenedicarboxylates in the presence of 2-acetylbutyrolactone. Synthesis of functionalized  $\alpha$ -methylene- $\gamma$ -butyrolactones

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Sakineh Asghari\* and Leila Mohammadi



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Corrigendum

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\*Corresponding author

Supplementary data available via ScienceDirect



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ISSN 0040-4039