

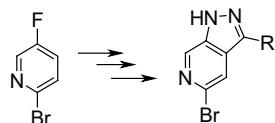
## Tetrahedron Letters Vol. 50, No. 4, 2009

### Contents

#### A facile method for the synthesis of substituted pyrazolo[3,4-c]pyridines

pp 383–385

Sharad K. Verma <sup>\*</sup>, Louis V. LaFrance



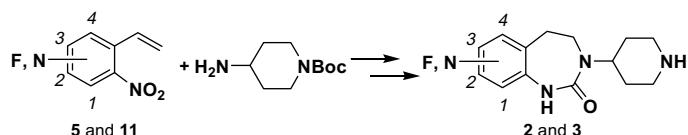
Methods are described for a facile high-yielding synthesis of substituted pyrazolo[3,4-c]pyridines from inexpensive commercially available starting materials.



#### Syntheses of aza and fluorine-substituted 3-(piperidin-4-yl)-4,5-dihydro-1*H*-benzo[d][1,3]diazepin-2(3*H*)-ones

pp 386–388

Xiaojun Han <sup>\*</sup>, Rita L. Civiello, Stephen E. Mercer, John E. Macor, Gene M. Dubowchik



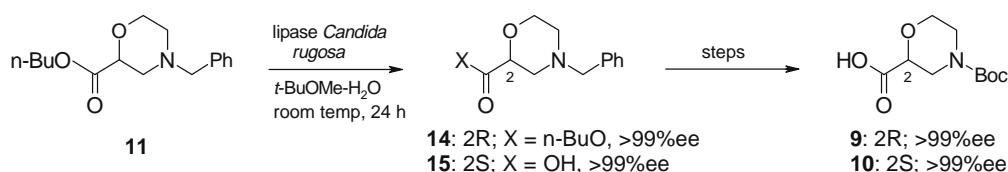
The title compounds **2** and **3** were formed in good to excellent overall yields by Michael addition of a primary amine to activated vinyl groups in **5** and **11**, by reduction ( $-\text{NO}_2$  to  $-\text{NH}_2$ ), cyclic urea formation, and Boc removal.



#### Enantioselective synthesis of (*R*)- and (*S*)-*N*-Boc-morpholine-2-carboxylic acids by enzyme-catalyzed kinetic resolution: application to the synthesis of reboxetine analogs

pp 389–391

Paul V. Fish <sup>\*</sup>, Malcolm Mackenny <sup>\*</sup>, Gerwyn Bish, Timothy Buxton, Russell Cave, David Drouard, David Hoople, Alan Jessiman, Duncan Miller, Christelle Pasquinet, Bhairavi Patel, Keith Reeves, Thomas Ryckmans, Melanie Skerten, Florian Wakenhut

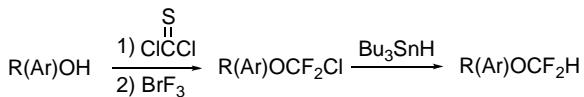


The (*R*)- and (*S*)-*N*-Boc-morpholine-2-carboxylic acids **9** and **10** were prepared using an enantioselective synthesis employing a highly selective enzyme-catalyzed kinetic resolution of racemic *n*-butyl 4-benzylmorpholine-2-carboxylate (**11**) as the key step.

**A general route for constructing difluoromethyl ethers**

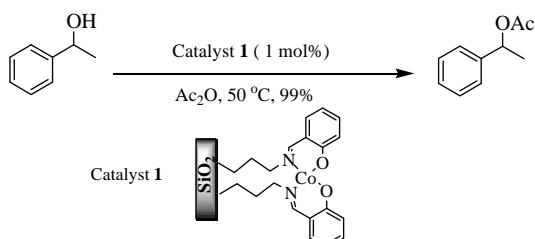
pp 392–394

Youlia Hagooly, Or Cohen, Shlomo Rozen \*

**A heterogeneous cobalt(II) Salen complex as an efficient and reusable catalyst for acetylation of alcohols and phenols**

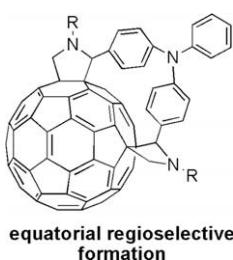
pp 395–397

Fatemeh Rajabi \*

**Regioselective triphenylamine-tether-directed synthesis of [60]fullerene bis-adducts**

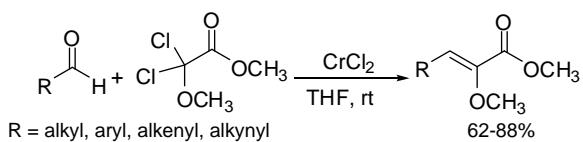
pp 398–401

Georgios Rotas, Nikos Tagmatarchis \*

**Stereoselective synthesis of methyl (Z)- $\alpha$ -methoxyacrylates via two-carbon homologation of aldehydes**

pp 402–405

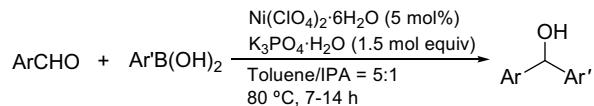
Rachid Baati \*, Charles Mioskowski, Dhurke Kashinath, Sanjeevarao Kodepelly, Biao Lu, J. R. Falck \*



**Nickel salt-catalyzed addition reaction of arylboronic acids to aromatic aldehydes**

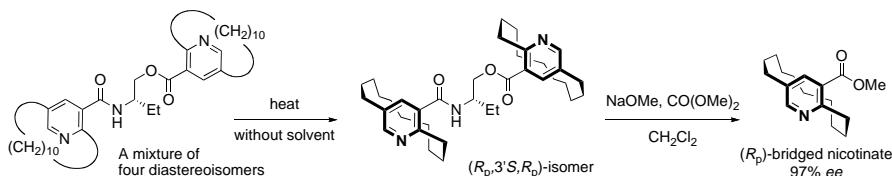
pp 406–408

Li Zhou, Xin Du, Ren He, Zhenhua Ci, Ming Bao \*

**Synchronized stereocontrol of planar chirality by crystallization-induced asymmetric transformation**

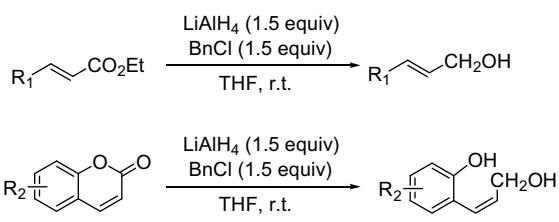
pp 409–412

Nobuhiro Kanomata \*, Gou Mishima, Jun Onozato

**A novel and efficient procedure for the preparation of allylic alcohols from  $\alpha,\beta$ -unsaturated carboxylic esters using  $\text{LiAlH}_4/\text{BnCl}$** 

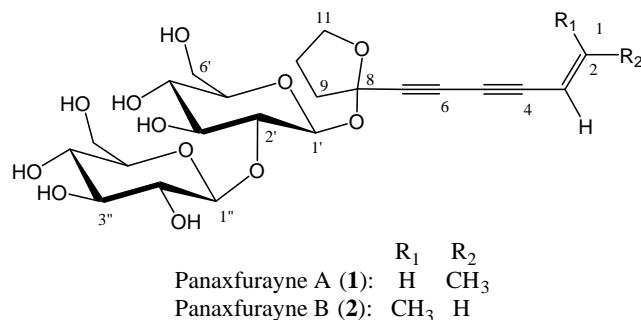
pp 413–415

Xiaolong Wang \*, Xiaodong Li, Jijun Xue, Yuling Zhao, Yumei Zhang

**Panaxfuraynes A and B, two new tetrahydrofuranic polyacetylene glycosides from *Panax ginseng* C. A. Meyer**

pp 416–418

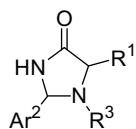
Sang Myung Lee \*, Ki Hwan Bae, Hyun Joo Sohn



**Solid-phase synthesis of 1,2,5-trisubstituted imidazolidin-4-ones**

pp 419–422

Lan-Ying Qin \*, Andrew G. Cole, Axel Metzger, Linda O'Brien, Xiling Sun, Jin Wu, Yan Xu, Kai Xu, Ying Zhang, Ian Henderson

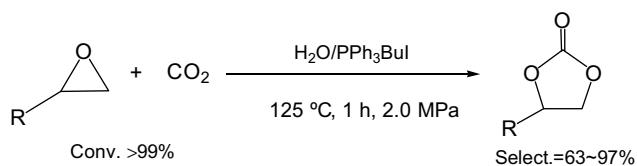


Reaction of an  $\alpha$ -amino amide on solid support with an aldehyde in solution through a microwave-assisted condensation generates the corresponding resin-bound imidazolidin-4-one.

**Water as an efficient medium for the synthesis of cyclic carbonate**

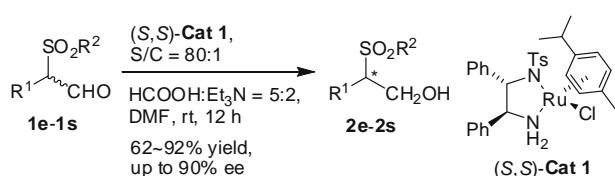
pp 423–426

Jian Sun, Junyi Ren, Suojiang Zhang \*, Weigu Cheng

**Dynamic kinetic resolution of racemic  $\alpha$ -sulfonylaldehydes via asymmetric transfer hydrogenation**

pp 427–429

Guofeng Wu, Jinlong Zhu, Zhenhua Ding, Zongxuan Shen, Yawen Zhang \*

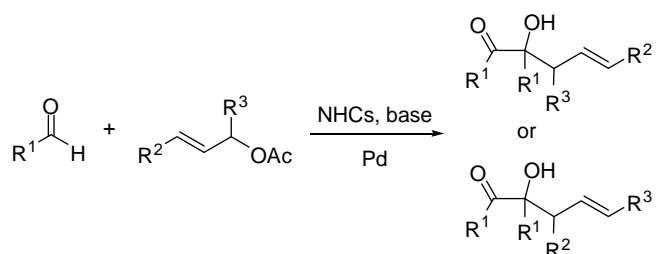


Hydrogen transfer reduction of  $\alpha$ -sulfonylaldehydes using HCOOH–Et<sub>3</sub>N system as the hydrogen source and (S,S)-TsDPEN-based Ru(II) as catalyst proceeds with DKR, providing optically active  $\beta$ -sulfonyl primary alcohols in moderate-to-good yields and up to 90% ee.

**Assembly of functionalized  $\alpha$ -hydroxy carbonyl compounds via combination of N-heterocyclic carbene and Pd catalysts**

pp 430–433

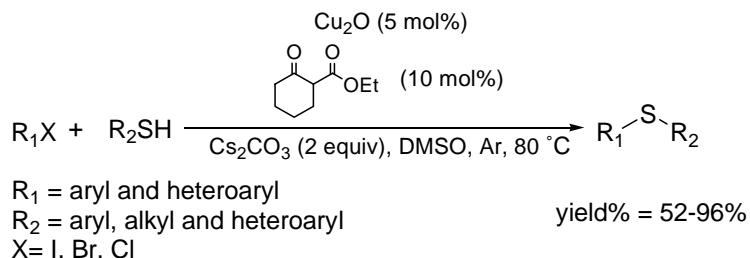
Jinmei He, Shibing Tang, Shouchu Tang, Jian Liu, Yongquan Sun, Xinfu Pan, Xuegong She \*



**Efficient C–S cross coupling catalyzed by Cu<sub>2</sub>O**

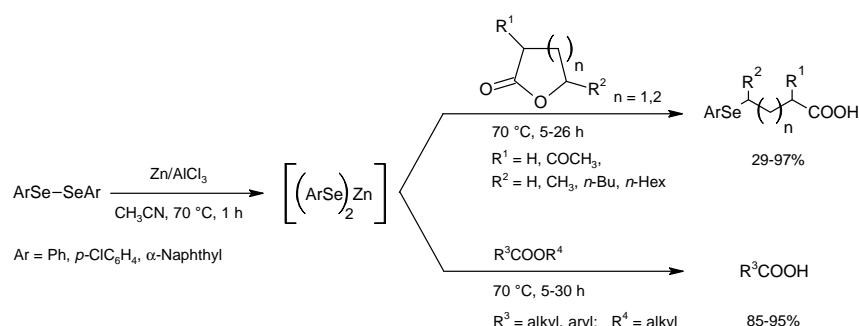
pp 434–437

Hua-Jian Xu, Xiao-Yang Zhao, Jin Deng, Yao Fu \*, Yi-Si Feng \*

**Nucleophilic cleavage of lactones and esters with zinc selenolates prepared from diselenides in the presence of Zn/AlCl<sub>3</sub>**

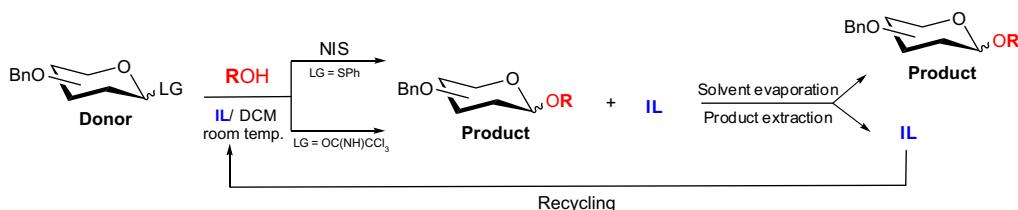
pp 438–441

Mohammad Nazari, Barahman Movassagh \*

**[bmim][OTf]: a versatile room temperature glycosylation promoter**

pp 442–445

M. Carmen Galan \*, Claire Brunet, Monica Fuensanta

**A novel Brønsted acid catalyst for Friedel–Crafts acylation**

pp 446–447

Anna G. Posternak, Romute Yu. Garlyauskayte \*, Lev M. Yagupolskii



**Unexpected one-pot synthesis of new polycyclic coumarin[4,3-c]pyridine derivatives via a tandem hetero-Diels-Alder and 1,3-dipolar cycloaddition reaction**

pp 448–451

Daman R. Gautam, John Protopappas, Konstantina C. Fylaktakidou, Konstantinos E. Litinas \*, Demetrios N. Nicolaides \*, Constantinos A. Tsoleridis \*

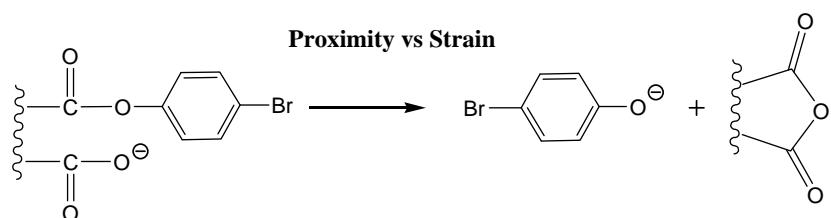


O-Methyl-4-coumarincarboxaldehyde oxime reacted with electron-deficient and electron-rich dienophiles to give, in one step, coumarin[4,3-c]pyridine derivatives. The regio- and stereoselectivities of the new compounds correspond well with spectroscopic and theoretical data. A possible mechanistic scheme is provided.

**Reevaluation of Bruice's proximity orientation**

pp 452–456

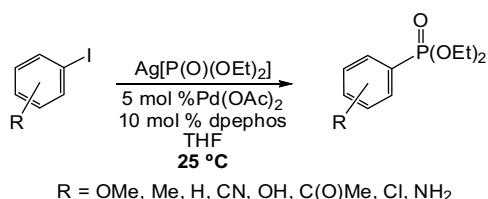
Rafik Karaman \*



**Development of a room temperature Hirao reaction**

pp 457–459

Mark C. Kohler, Joseph G. Sokol, Robert A. Stockland Jr. \*



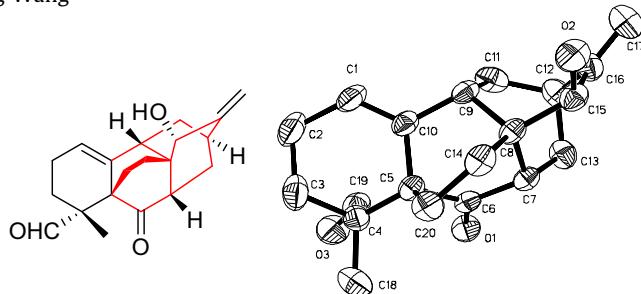
Arylphosphonates were prepared at 25 °C though the palladium catalyzed coupling of aryl iodides with a silver phosphonate.



**Atropurpuran, a novel diterpene with an unprecedented pentacyclic cage skeleton, from *Aconitum hemsleyanum* var. *atropurpureum***

pp 460–462

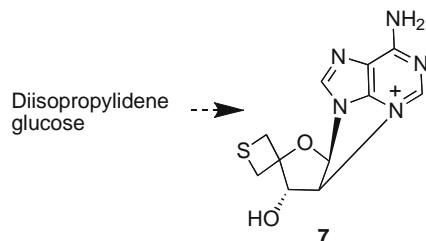
Pei Tang, Qiao-Hong Chen, Feng-Peng Wang \*



**Synthesis of a 4',4'-spirothietane-2', N<sup>3</sup>-cycloadenosine as a highly constrained analogue of 5'-deoxy-5'-methylthioadenosine (MTA)**

pp 463–466

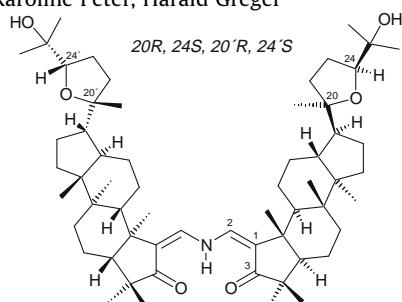
Gustavo S. G. De Carvalho, Jean-Louis Fourrey, Robert H. Dodd, Adilson D. Da Silva \*



**Silvaglenamin—a novel dimeric triterpene alkaloid from *Aglaia silvestris***

pp 467–468

Otmar Hofer \*, Silvia Pointinger, Lothar Brecker, Karoline Peter, Harald Greger \*

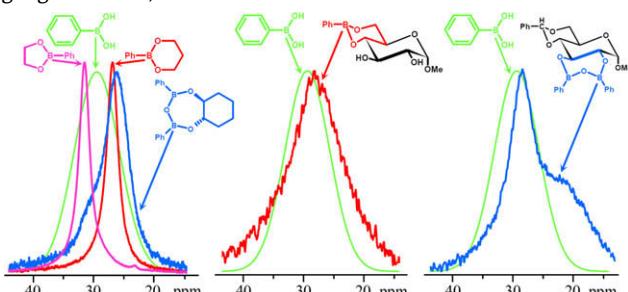


An unusual dimeric triterpene structure with two dammarane units linked with an amine –NH– group was isolated from *Aglaia silvestris*.

**Seven-membered ring boronates at *trans*-diol moieties of carbohydrates**

pp 469–472

Marcel Meiland, Thomas Heinze, Wolfgang Guenther, Tim Liebert \*



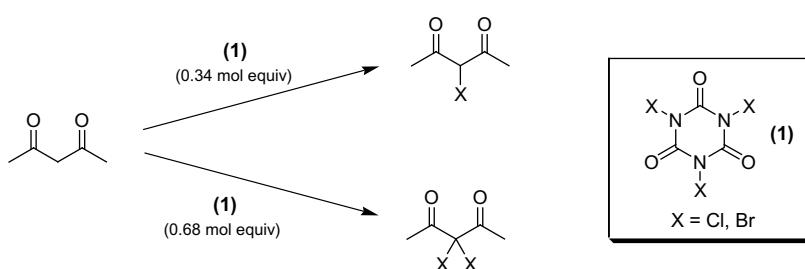
MS and NMR results are presented revealing the formation of seven-membered boronates at *trans*-1,2-diol moieties of carbohydrates, which can provide opportunities for activation, protection and analysis of glucopyranose-based oligo- and polymers.



**Trihaloisocyanuric acids as convenient reagents for regioselective halogenation of β-dicarbonyl compounds**

pp 473–475

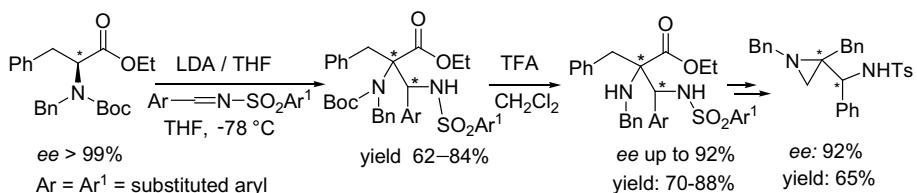
Gabriela F. Mendonça, Haryadilla C. Sindra, Leonardo S. de Almeida, Pierre M. Esteves \*, Marcio C. S. de Mattos \*



**Enantioselective synthesis of  $\alpha,\beta$ -diamino ester derivatives: memory of chirality in imino-aldol reactions**

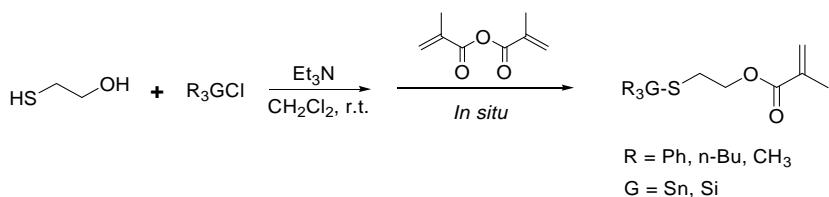
pp 476–479

Manas K. Ghorai \*, Koen Ghosh, A. K. Yadav

**A new strategy for chemoselective O-acylation of  $\beta$ -mercapto alcohols via alkylsilyl and stanny protection**

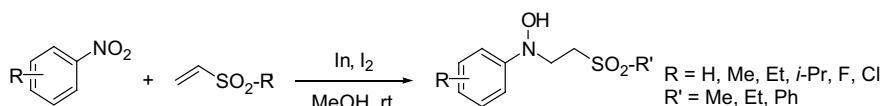
pp 480–483

Muchchintala Maheswara, Mirae Kim, Sun-Ju Yun, Jung Jin Ju, Jung Yun Do \*

**2-(N-Hydroxylamino) sulfone synthesis by indium-iodine-triggered aza-Michael type addition of nitroarenes to vinyl sulfones**

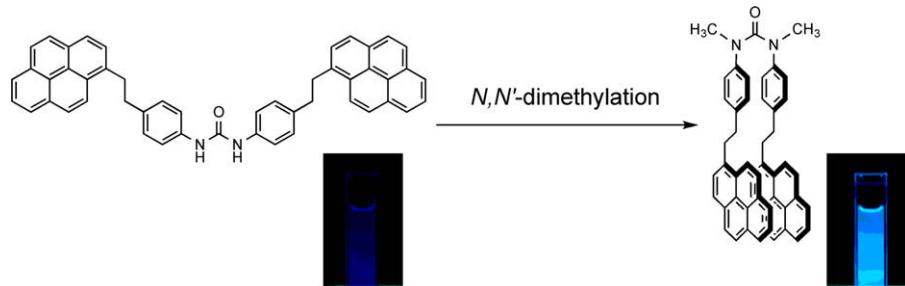
pp 484–487

Sun Jung Lee, Jung June Lee, Chong-Hyeak Kim, Young Moo Jun, Byung Min Lee, Byeong Hyo Kim \*

**Fluorescent visualization of the conformational change of aromatic amide or urea induced by N-methylation**

pp 488–491

Tomoya Hirano, Takashi Osaki, Shinya Fujii, Daisuke Komatsu, Isao Azumaya, Aya Tanatani, Hiroyuki Kagechika \*



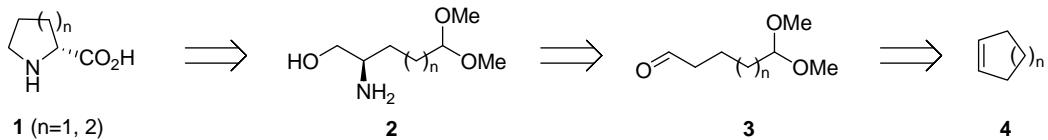
Intramolecular excimer formation of pyrene substituents in aromatic cis-amide or cis-urea enables fluorescent visualization of trans/cis conformational change.



**Efficient syntheses of enantioenriched (*R*)-pipecolic acid and (*R*)-proline via electrophilic organocatalytic amination**

pp 492–494

Delphine Kalch, Nicolas De Rycke, Xavier Moreau, Christine Greck \*



Five-step syntheses of (*R*)-pipecolic acid and (*R*)-proline are described, respectively, from cyclohexene and cyclopentene. The key step involves the organocatalytic  $\alpha$ -amination of functionalized aldehydes.

\*Corresponding author

(i)<sup>+</sup> Supplementary data available via ScienceDirect

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