

ПИ  
Т39  
  
ELSEVIER

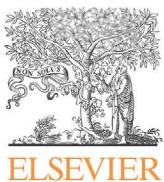
Vol. 69 • Issue 32 • 12 August 2013 • ISSN 0040-4020

# Tetrahedron

THE INTERNATIONAL JOURNAL FOR THE RAPID PUBLICATION OF FULL  
ORIGINAL RESEARCH PAPERS AND CRITICAL REVIEWS IN ORGANIC CHEMISTRY

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

SciVerse ScienceDirect



## Tetrahedron Vol. 69, Issue 32, 2013

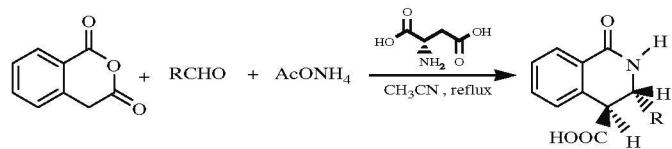
## Contents

## ARTICLES

**Diastereoselective and one-pot synthesis of *trans*-isoquinolonic acids via three-component condensation of homophthalic anhydride, aldehydes, and ammonium acetate catalyzed by aspartic acid**

Arash Ghorbani-Choghamarani\*, Maryam Hajjami, Masoomeh Norouzi, Yunes Abbasityula, Václav Eigner, Michal Dušek

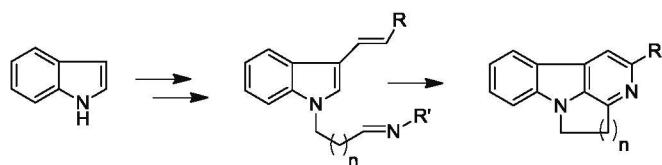
pp 6541–6544



**Synthesis of canthine analogues using intramolecular aza-Diels–Alder strategy and evaluation of their activity against HeLa cervical cancer cells**

Prajakta N. Naik, Nilesh H. Naik, Ayesha Khan, Radhika S. Kusurkar\*

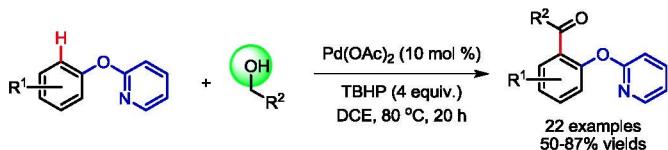
pp 6545–6551



**Pd-catalyzed oxidative acylation of 2-phenoxyppyridines with alcohols via C–H bond activation**

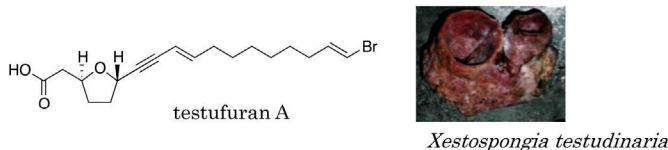
pp 6552–6559

Minyoung Kim, Satyasheel Sharma, Jihye Park, Mirim Kim, Yeonhee Choi, Yukyoung Jeon, Jong Hwan Kwak, In Su Kim\*

**Stimulators of adipogenesis from the marine sponge *Xestospongia testudinaria***

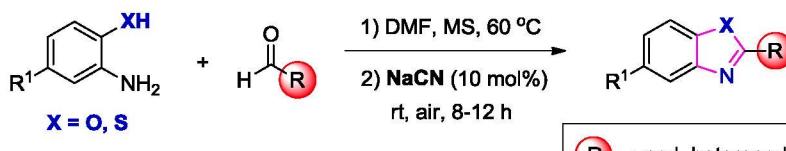
pp 6560–6564

Takuya Akiyama, Kentaro Takada, Tsutomu Oikawa, Nobuyasu Matsuura, Yuji Ise, Shigeru Okada, Shigeki Matsunaga\*

**Cyanide as a powerful catalyst for facile synthesis of benzofused heteroaromatic compounds via aerobic oxidation**

pp 6565–6573

Yeon-Ho Cho, Chun-Young Lee, Cheol-Hong Cheon\*

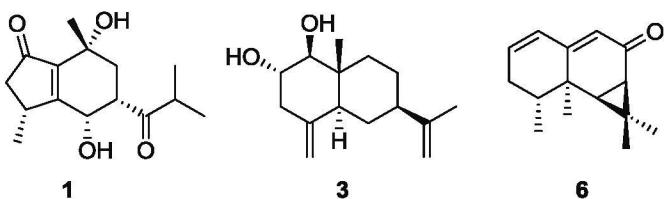


**R** = aryl, heteroaryl, alkyl  
**X** = O: up to 93 % yield  
**X** = S: up to 91 % yield

**Novel sesquiterpenes from *Nardostachys chinensis* Batal**

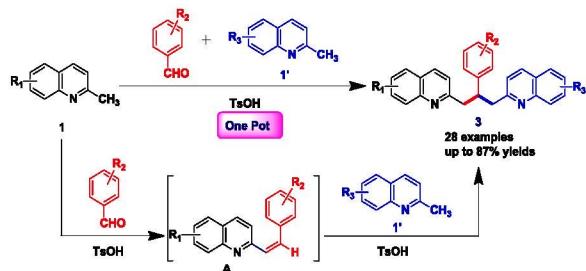
pp 6574–6578

Ming-Li Liu, Ying-Hui Duan, Jin-Bo Zhang, Yang Yu, Yi Dai\*, Xin-Sheng Yao\*



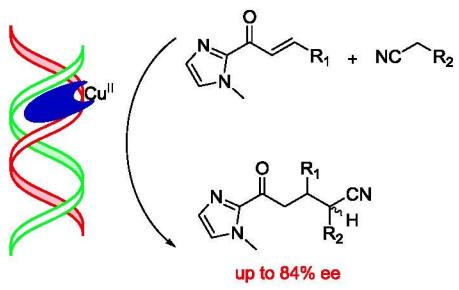
**Brønsted acid catalyzed synthesis of 1,3-di(2-quinolyl)propane derivatives via tandem C(sp<sup>3</sup>)–H functionalization**  
Jia-jia Jin, Dong-chao Wang, Hong-ying Niu\*, Shan Wu, Gui-rong Qu, Zhong-bo Zhang, Hai-ming Guo\*

pp 6579–6584



**Enantioselective Michael addition reactions in water using a DNA-based catalyst**  
Yinghao Li, Changhao Wang, Guoqing Jia, Shengmei Lu, Can Li\*

pp 6585–6590



**S–Co(II) cascade catalysis: cyclocondensation of aromatic nitriles with alkamine**  
Haixia Ge, Ping Liu, Xiangnan Li, Wei Sun, Jianli Li\*, Bingqin Yang, Zhen Shi

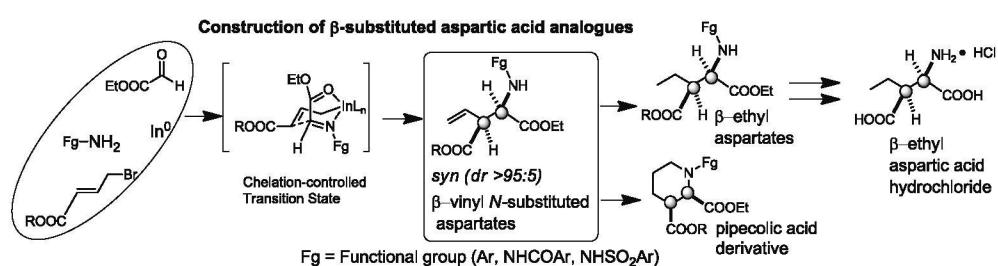
pp 6591–6597



**Chelation-controlled diastereoselective construction of *N*-aryl-, *N*-acyl/tosylhydrazone  $\beta$ -substituted aspartate derivatives via Barbier-type reaction**

pp 6598–6611

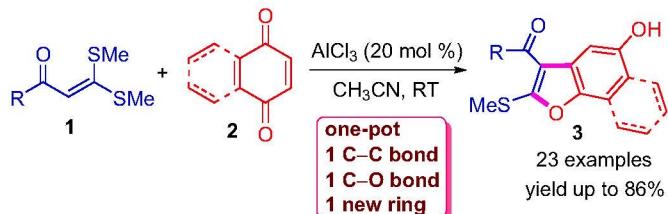
Nayyar Ahmad Aslam, Srinivasarao Arulananda Babu\*, Arya Jayadev Sudha, Makoto Yasuda, Akio Baba



**One-pot straightforward approach to 2,3-disubstituted benzo/naphtho[*b*]furans via domino annulation of  $\alpha$ -oxoketene dithioacetals and 1,4-benzo/naphthoquinone mediated by AlCl<sub>3</sub> at room temperature**

pp 6612–6619

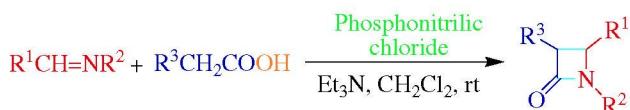
Girijesh Kumar Verma, Rajiv Kumar Verma, Gaurav Shukla, Nagaraju Anugula, Abhijeet Srivastava, Maya Shankar Singh\*



**A facile and effective synthesis of 2-azetidinones via phosphonitrilic chloride**

pp 6620–6626

Maaroof Zarei



**Synthesis of 2-aminobenzoxazoles via copper-catalyzed electrophilic amination of benzoxazoles with O-benzoyl hydroxylamines**

pp 6627–6633

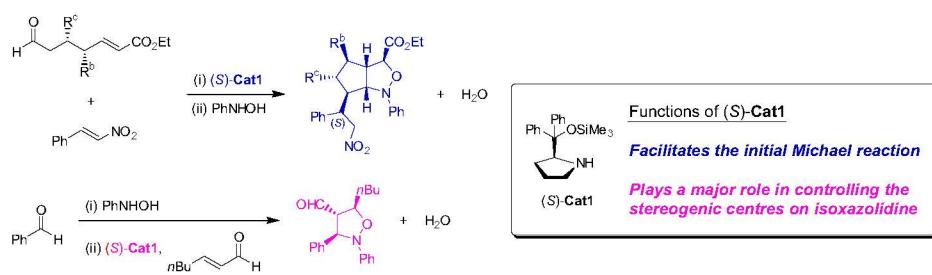
Sirilata Yotphan\*, Danupat Beukeaw, Vichai Reutrakul



**Diastereoselectivity of isoxazolidines obtained from  $\alpha,\alpha$ -diphenylprolinol trimethylsilyl ether-catalyzed three-component domino reactions**

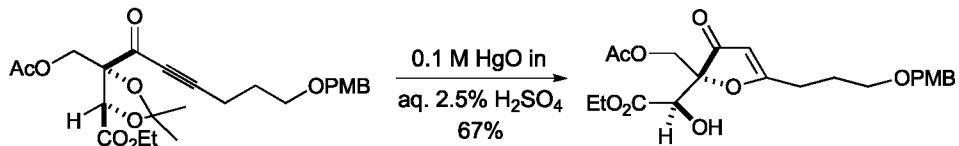
pp 6634–6638

Chiong Teck Wong



**Enynone dihydroxylation–cyclisation as a route to densely functionalised 3(2*H*)-furanone derivatives: an approach to the core of the zaragozic acids** pp 6639–6647

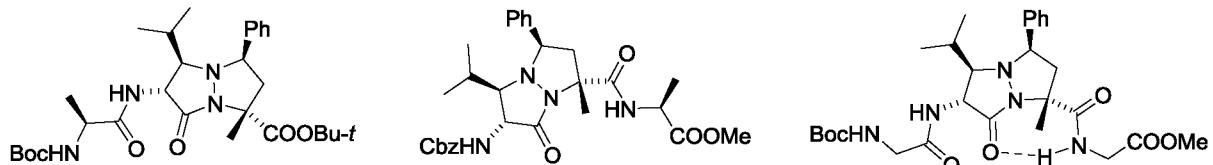
Mehrnoosh Ostovar, Charles M. Marson\*



**Synthesis of pyrazolo[1,2-*a*]pyrazole-based peptide mimetics**

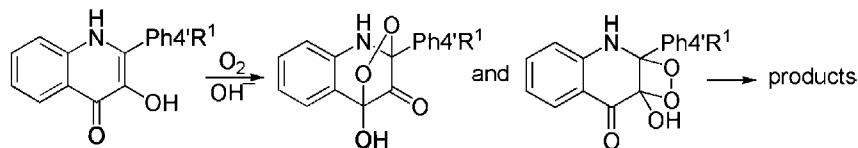
pp 6648–6665

Ana Novak, Ana Testen, Jure Bezenšek, Uroš Grošelj, Martina Hrast, Marta Kasunič, Stanislav Gobec, Branko Stanovnik, Jurij Svetec\*



**Kinetics and mechanism of the base-catalyzed oxygenation of 1*H*-2-phenyl-3-hydroxy-4-oxoquinolines in DMSO/H<sub>2</sub>O** pp 6666–6672

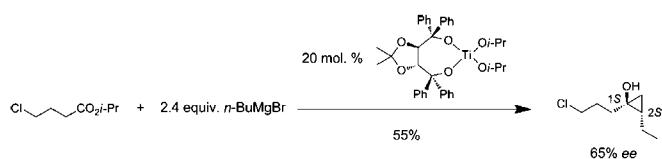
Miklós Czaun, Gábor Speier\*, József Kaizer, Nadia El Bakkali-Taheri, Etelka Farkas



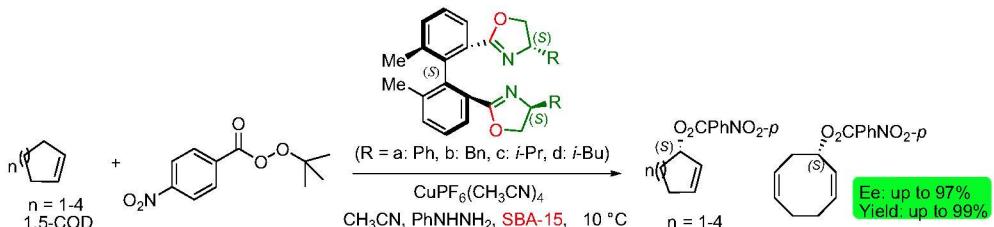
**Enantioselective cyclopropanation of carboxylic esters with alkyl magnesium bromides in the presence of titanium(IV) (4*R*,5*R*)-TADDOLates**

pp 6673–6678

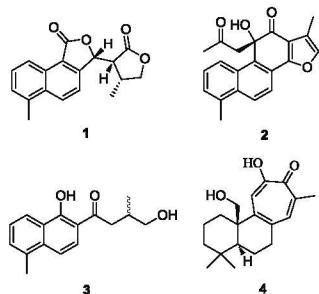
Yulia A. Konik, Dzmitry G. Kananovich\*, Oleg G. Kulinkovich\*



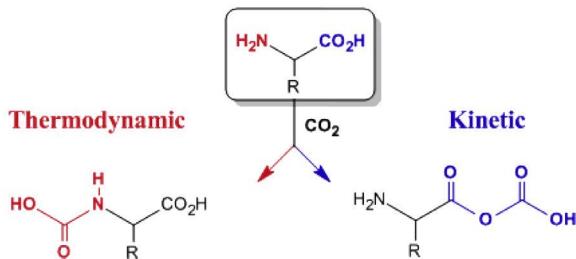
**A significant improvement in enantioselectivity, yield, and reactivity for the copper-bi-*o*-tolyl bisoxazoline-catalyzed asymmetric allylic oxidation of cyclic olefins using recoverable SBA-15 mesoporous silica material** pp 6679–6686  
 Saadi Samadi, Saber Nazari, Hamid Arvinnezhad, Khosrow Jadidi\*, Behrouz Notash



**New abietane diterpenoids from the roots of *Salvia przewalskii*** pp 6687–6692  
 Hai-Long Jiang, Xiao-Zheng Wang, Jie Xiao, Xiao-Hong Luo, Xiao-Jun Yao, Yuan-Yuan Zhao, Yong-Jia Chen, Phillip Crews, Quan-Xiang Wu\*

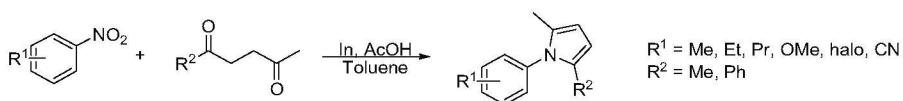


**Evaluating the CO<sub>2</sub>-capturing efficacy of amine and carboxylic acid motifs: ab initio studies on thermodynamic versus kinetic properties** pp 6693–6697  
 Namseok Kim, Sungho Yoon\*, Gyoosoon Park\*



The  $-\text{CO}_2\text{H}$  functional group in amino acids reversibly reacts with CO<sub>2</sub> more quickly than the  $-\text{NH}_2$  group, generating the carbonic anhydride,  $-\text{CO}_2\text{CO}_2\text{H}$ .

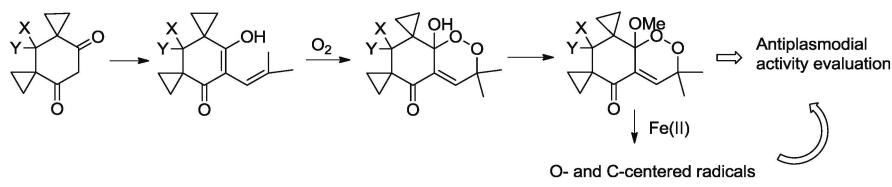
**Indium-mediated one-pot pyrrole synthesis from nitrobenzenes and 1,4-diketones** pp 6698–6708  
 Hyunseung Lee, Byeong Hyo Kim\*



**Synthesis and antiplasmodial evaluation of cyclopropyl analogs of the G-factor bicyclic peroxide**

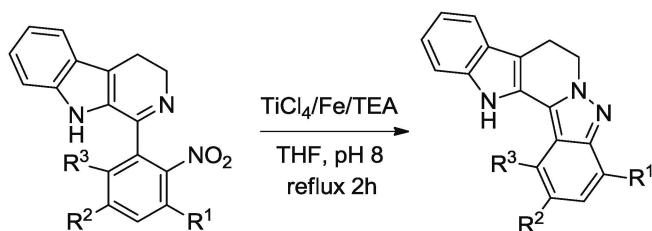
Jérémie Ruiz, Béatrice Tuccio, Robert Lauricella, Marjorie Maynadier, Henri Vial, Christiane André-Barrès\*

pp 6709–6720

**An efficient and convenient synthesis of heterocycle-fused indazoles via the N–N bond forming reaction of nitroarenes induced by low-valent titanium reagent**

Wei Lin, Ming-Hua Hu, Xian Feng, Cheng-Pao Cao, Zhi-Bin Huang\*, Da-Qing Shi\*

pp 6721–6726

**CORRIGENDUM****Corrigendum to “The stereochemistry of isoquinoline Reissert compounds: a unique platform for observation of steric and electronic interactions” [Tetrahedron 68 (2012) 8052–8067]**

p 6727

Harry W. Gibson\*, Michael A.G. Berg, Terry L. Price, Jr., Zhenbin Niu, Minjae Lee, Mason A. Rouser, Jennifer Clifton Dickson, Carla Sledobnick

\*Corresponding author

i+ Supplementary data available via SciVerse ScienceDirect

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)**SciVerse ScienceDirect**Full text of this journal is available, on-line from **SciVerse ScienceDirect**. Visit [www.sciencedirect.com](http://www.sciencedirect.com) for more information.

Abstracted/indexed in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts, Current Contents: Life Sciences, Current Contents: Physical, Chemical and Earth Sciences, Current Contents Search, Derwent Drug File, Ei Compendex, EMBASE/Excerpta Medica, PASCAL, Research Alert, Science Citation Index, SciSearch. Also covered in the abstract and citation database SciVerse SCOPUS®. Full text available on SciVerse ScienceDirect®



ISSN 0040-4020