

Tetrahedron Letters Vol. 51, No. 51, 2010

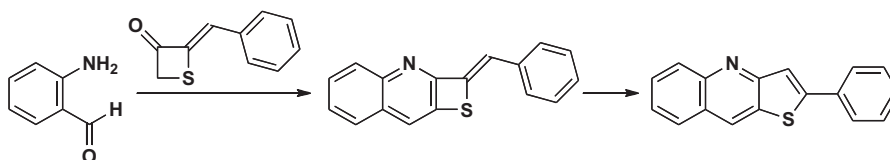
Contents

COMMUNICATIONS

**2-Benzyliden-2H-thieto[3,2-*b*]quinoline: a new heterocycle and its rearrangement to 2-phenylthieno[3,2-*b*]quinoline**

pp 6687–6689

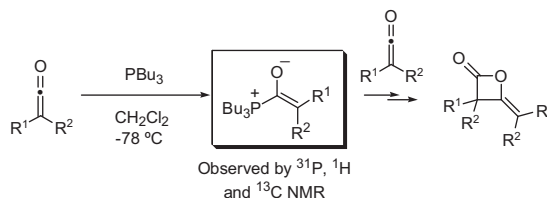
Makhluf J. Haddadin\*, Claudia El-Nachef, Hawraa Kisserwani, Yara Chaaban, Mark J. Kurth\*, James C. Fettinger



**Mechanistic studies of the phosphine-catalyzed homodimerization of ketoketenes**

pp 6690–6694

Pei-Hsun Wei, Ahmad A. Ibrahim, Mukulesh Mondal, Divya Nalla, Gero D. Harzmann, Frank A. Tedeschi, Kraig A. Wheeler, Nessian J. Kerrigan\*



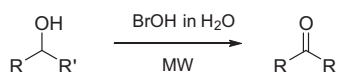
The mechanism of the  $\text{PBu}_3$ -catalyzed homodimerization of ketoketenes has been investigated and compared with that of the previously reported  $\text{P}(\text{OMe})_3$ -mediated homodimerization of dimethylketene. NMR studies and intermediate trapping experiments of the  $\text{PBu}_3$ -catalyzed reaction implicated the involvement of tetra-valent phosphonium enolate intermediates.



**Fast oxidation of secondary alcohols by the bromate-bromide system using cyclic microwave heating in acidic water**

pp 6695–6699

Sanna Pääkkönen, Jouni Pursiainen, Marja Lajunen\*



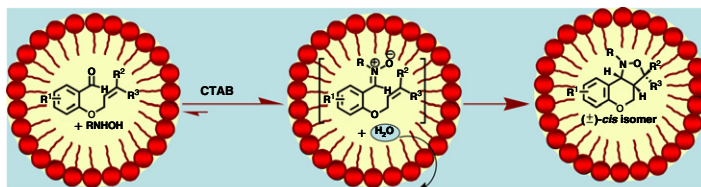
An improved, gentle, cyclic microwave activation technique for the oxidation of secondary alcohols using nonhazardous  $\text{BrOH}$  as the reagent in acidic water is reported.



## Dehydrative intramolecular nitron cycloaddition in confined aqueous media: a green chemical route to *cis*-fused chromano[4,3-*c*]isoxazoles

pp 6700–6703

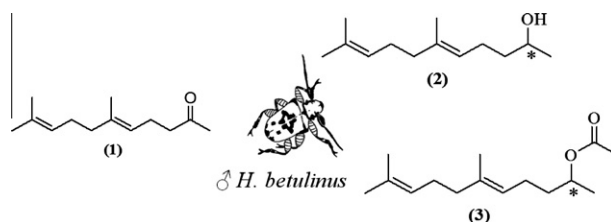
Amrita Chatterjee\*, Sandip K. Hota, Mainak Banerjee, Pranab K. Bhattacharya



## Enantioselective synthesis and absolute configuration of the sex pheromone of *Hedypathes betulinus* (Coleoptera: Cerambycidae)

pp 6704–6706

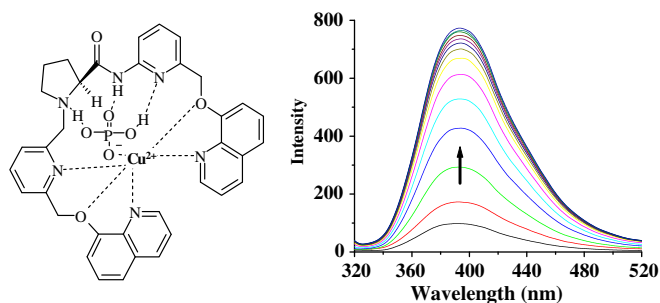
Diogo M. Vidal, Marcy G. Fonseca, Paulo H. G. Zarbin\*



## Metal ion based chiral fluorescence sensor selective for dihydrogenphosphate

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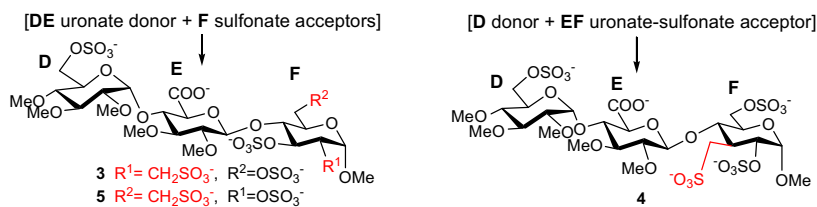
Shyamaprosad Goswami\*, Debabrata Sen, Nirmal Kumar Das



## Synthesis of sulfonic acid analogues of the non-reducing end trisaccharide of the antithrombin binding domain of heparin

pp 6711–6714

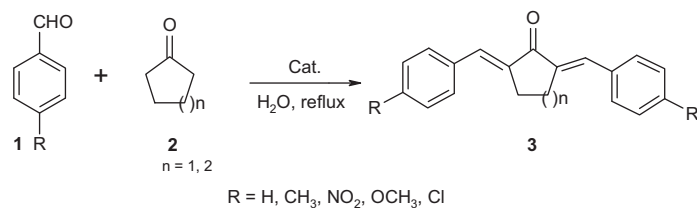
László Lázár, Mihály Herczeg, Anikó Fekete, Anikó Borbás\*, András Lipták, Sándor Antus



**Animal bone meal as an efficient catalyst for crossed-aldol condensation**

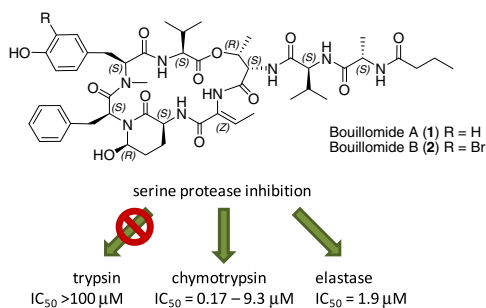
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Y. Riadi, R. Mamouni, R. Azzalou, R. Boulahjar, Y. Abrouki, M. El Haddad, S. Routier, G. Guillaumet\*, S. Lazar\*

**Depsipeptides from a Guamanian marine cyanobacterium, *Lyngbya bouillonii*, with selective inhibition of serine proteases**

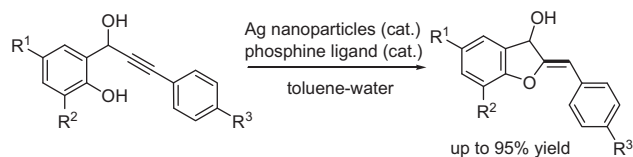
pp 6718–6721

Brent K. Rubio, Stephen M. Parrish, Wesley Yoshida, Peter J. Schupp, Tom Schils, Philip G. Williams\*

**Ligand-promoted reaction on silver nanoparticles: phosphine-promoted, silver nanoparticle-catalyzed cyclization of 2-(1-hydroxy-3-arylprop-2-ynyl)phenols**

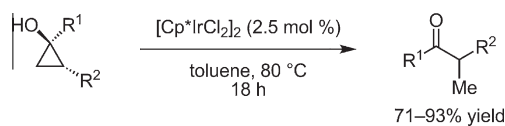
pp 6722–6725

Min Yu, Mingdeng Lin, Chengyan Han, Li Zhu, Chao-Jun Li\*, Xiaoquan Yao\*

**Synthesis of  $\alpha$ -methyl ketones by a selective, iridium-catalyzed cyclopropanol ring-opening reaction**

pp 6726–6729

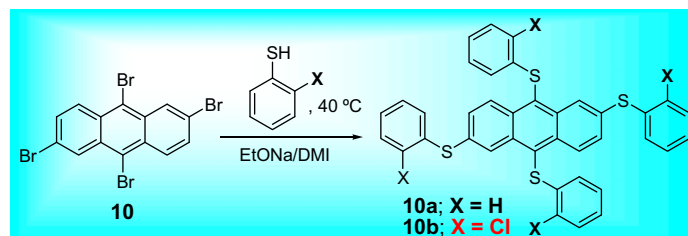
Daniel T. Ziegler, Andrew M. Steffens, Timothy W. Funk\*



**Mild persubstitution of di- and tetrabrominated arenes with arylthiolate nucleophiles**

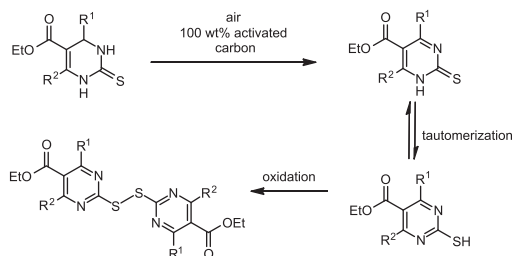
pp 6730–6733

Pablo G. Del Rosso\*, Marcela F. Almassio, Mattia Bruno, Raúl O. Garay

**Oxidative transformation of thiols to disulfides promoted by activated carbon–air system**

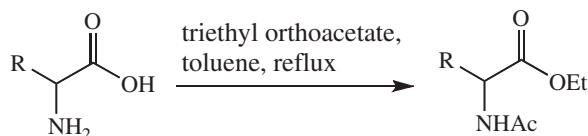
pp 6734–6736

Masahiko Hayashi\*, Ken-ichi Okunaga, Shunsuke Nishida, Kenjiro Kawamura, Kazuo Eda

**Concurrent esterification and N-acetylation of amino acids with orthoesters: a useful reaction with interesting mechanistic implications**

pp 6737–6740

Sarah Gibson, Dickie Romero, Hollie K. Jacobs, Aravamudan S. Gopalan\*

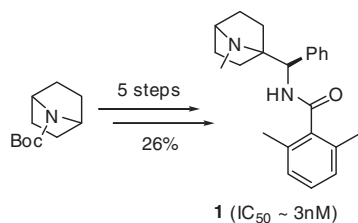


The concurrent esterification and N-acetylation of amino acids with triethyl orthoacetate is a useful synthetic process. Stereochemical outcome, stoichiometric studies, and structural variation of the amino acids provided unexpected mechanistic insights.

**Efficient synthesis of a 7-azabicyclo[2.2.1]heptane based GlyT1 uptake inhibitor**

pp 6741–6744

Hui Xiong\*, William Frieze, Donald W. Andisik, Glen E. Ernst, William E. Palmer, Lindsay Hinkley, Jeffrey G. Varnes, Jeffrey S. Albert, Chris A. Veale

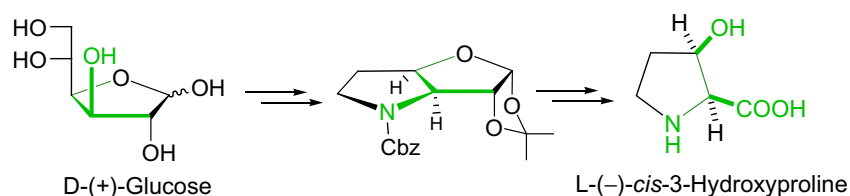


Generation and subsequent electrophilic reaction of a Boc-protected azabicyclo[2.2.1]heptane anion led to efficient preparation of the potent GlyT1 uptake inhibitor 1 in five steps and 26% overall yield.

**Total synthesis of natural *cis*-3-hydroxy-L-proline from D-glucose**

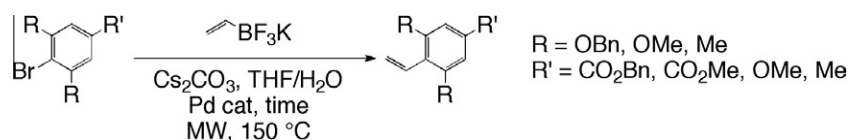
pp 6745–6747

Navnath B. Kalamkar, Vijay M. Kasture, Dilip D. Dhavale\*

**Studies of microwave-enhanced Suzuki–Miyaura vinylation of electron-rich sterically hindered substrates utilizing potassium vinyltrifluoroborate**

pp 6748–6752

Matthew D. Brooker, Stefan M. Cooper Jr., Dena R. Hodges, Rhiannon R. Carter, Justin K. Wyatt\*

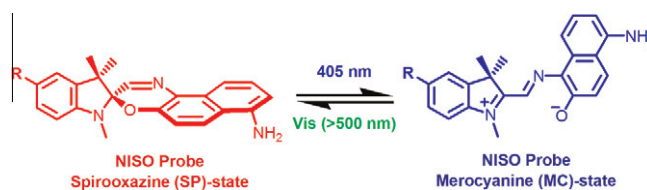


The Suzuki–Miyaura cross-coupling of sterically hindered and electron-rich *ortho,ortho'*-substituted aryl halides with potassium vinyltrifluoroborate utilizing microwave irradiation has been conducted while adjusting solvent ratio, irradiation time, and catalyst loading to find optimal conditions. Coupling of benzyl 3,5-bis(benzyloxy)-4-bromobenzoate leads to a mixture of the desired styrene derivative, and the reduced product. 4-Bromo-1,3,5-trimethoxybenzene, methyl 4-bromo-3,5-dimethoxybenzoate, and mesitylene bromide were also coupled to test the breadth and scope of this methodology. Of these substrates tested only 4-bromo-1,3,5-trimethoxybenzene was not vinyolated successfully, which is believed to be due to the electron-rich nature of this system.

**Synthesis and spectroscopic characterization of red-shifted spironaphthoxazine based optical switch probes**

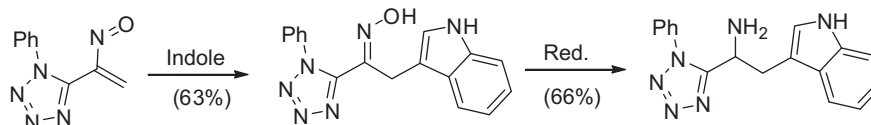
pp 6753–6755

Chutima Petchprayoon, Gerard Marriott\*

**A hetero-Diels–Alder approach to functionalized 1H-tetrazoles: synthesis of tetrazolyl-1,2-oxazines, -oximes and 5-(1-aminoalkyl)-1H-tetrazoles**

pp 6756–6759

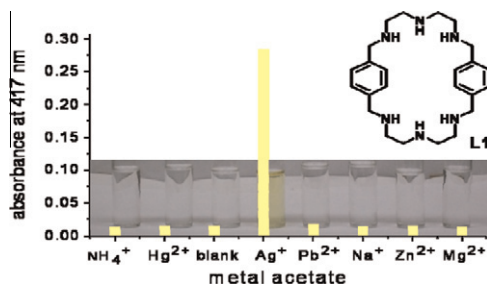
Susana M. M. Lopes, Américo Lemos\*, Teresa M. V. D. Pinho e Melo\*



**Hexamacrocycle assisted sensing of silver ion through facile synthesis of silver nanoparticles**

pp 6760–6762

J. Athilakshmi, Dillip Kumar Chand\*

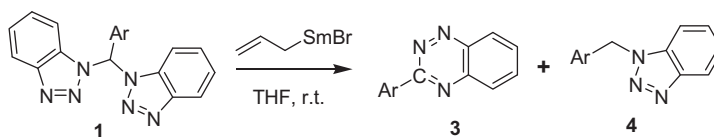


The ease of generation of silver nanoparticles by using hexamacrocycle ligand, **L1** is utilized for the visual detection of the presence of silver ions at lower concentrations.

**Construction of 3-aryl-1,2,4-benzotriazines via unprecedented rearrangement of bis(benzotriazol-1-yl)methylarenes**

pp 6763–6766

Zhiyun Zhong, Ran Hong, Xiaoxia Wang\*



3-Aryl-1,2,4-benzotriazines were formed unexpectedly by the treatment of 1,1-bis(benzotriazol-1-yl)methylarenes with allylsamarium bromide. A radical process was proposed involving steps, such as fragmentation, ring-opening, and cyclization.

**Stereoselective synthesis of amphiasterin B4: assignment of absolute configuration**

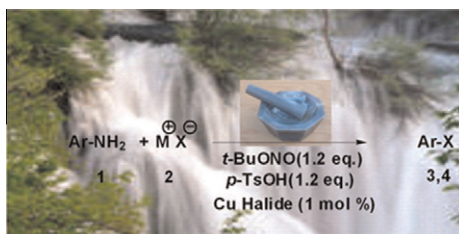
pp 6767–6768

Masaki Takahashi, Takamasa Suzuki, Jolanta Wierzejska, Tetsuya Sengoku, Hidemi Yoda\*

**An expeditious and environmentally benign preparation of aryl halides from aryl amines by solvent-free grinding**

pp 6769–6771

Mi Eun Moon, Younghwa Choi, Young Min Lee, Vaishali Vajpayee, Marina Trusova, Victor D. Filimonov\*, Ki-Whan Chi\*

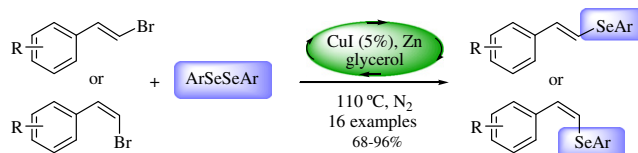


An efficient and rapid solvent-free process for the conversion of various aryl amines into aryl bromides and chlorides via in situ formation of arenediazonium tosylate salts under grinding conditions has been developed.

**Glycerol as a promoting medium for cross-coupling reactions of diaryl diselenides with vinyl bromides**

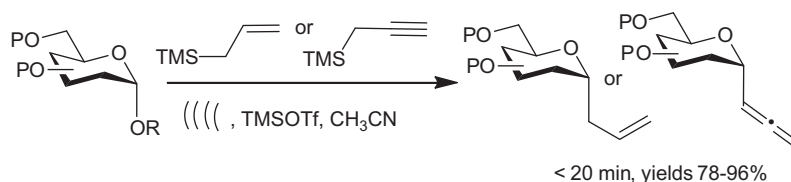
pp 6772–6775

Loren C. Gonçalves, Gabriela F. Fiss, Gelson Perin, Diego Alves, Raquel G. Jacob, Eder J. Lenardão\*

**Ultrasound-assisted synthesis of C-glycosides**

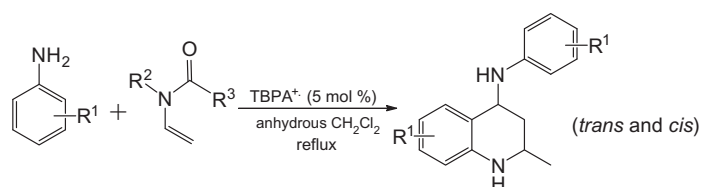
pp 6776–6778

Dilip V. Jarikote, Ciaran O'Reilly, Paul V. Murphy\*

**Radical cation salt induced tandem cyclization between anilines and N-vinyl amides: synthesis of 2-methyl-4-anilino-1,2,3,4-tetrahydroquinoline derivatives**

pp 6779–6782

Xiao-dong Jia\*, Yan Ren, Cong-de Huo, Wen-Juan Wang, Xiang-Ning Chen, Xiao-Lan Xu, Xi-cun Wang\*

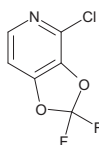


Tandem cyclization of imines and *N*-vinyl lactams induced by TBPA<sup>+</sup> was investigated and a series of 2-methyl-4-anilino-1,2,3,4-tetrahydroquinolines were synthesized based on a domino process in which *N*-vinyl lactams serve as an acetaldehyde equivalent. A single electron transfer mechanism was proposed and radical cation salt acts as both a Lewis acid and one electron oxidant to induce such transformation.

**First synthesis of 4-chloro-2,2-difluoro[1,3]dioxole[4,5-c]pyridine**

pp 6783–6785

Maria Pia Catalani\*, Alfredo Paio, Lorenzo Perugini



The 2,2-difluorobenzodioxole moiety has been proposed in medicinal chemistry research as a potential metabolically more stable derivative of the benzodioxole fragment. Herein we present, to the best of our knowledge, the first synthesis of 4-chloro-2,2-difluoro[1,3]dioxole[4,5-c]pyridine, a 5-aza-derivative of the 2,2-difluorobenzodioxole, from simple and cheap starting materials. The chlorine atom in position 4 could be useful for further functionalisation by cross coupling reactions.

\*Corresponding author

 Supplementary data available via ScienceDirect

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