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pp 6491-6494

### Tetrahedron Letters Vol. 49, No. 46, 2008

## Contents

#### COMMUNICATIONS

# *N*-Vinylpyridinium tetrafluoroborate salts as reagents for the stereoselective and regioselective synthesis of symmetrical (2*E*,4*E*)-1,6-dioxo-2,4-dienes

Ge Gao, Neil Brown, Machiko Minatoya, Keith R. Buszek \*



A general regioselective and stereoselective Pd(0)-catalyzed synthesis of substituted symmetrical (2E,4E)-1,6-dioxo-2,4-dienes is reported.

# Microwave-assisted four-component reaction for the synthesis of a monothiohydantoin inhibitor of a fatty acid pp 6495–6497 amide hydrolase

Estelle Gallienne, Giulio G. Muccioli, Didier M. Lambert, Michael Shipman \*



## Microwave-assisted orthogonal synthesis of PNA-peptide conjugates

Nina Svensen, Juan José Díaz-Mochón, Mark Bradley $^{\ast}$ 



Microwave heating offers a fully automated and efficient synthesis strategy to peptide nucleic acid-peptide conjugates.

pp 6498-6500

#### Organocatalytic synthesis of $\alpha$ -hydroxy and $\alpha$ -aminophosphonates

Seyed Mohammad Vahdat <sup>\*</sup>, Robabeh Baharfar, Mahmood Tajbakhsh, Akbar Heydari, Seyed Meysam Baghbanian, Samad Khaksar



**Desulfurization and transformation of isothiocyanates to cyanamides by using sodium bis(trimethylsilyl)amide** pp 6505–6507 Chun-Yen Chen, Fung Fuh Wong <sup>\*</sup>, Jiann-Jyh Huang, Shao-Kai Lin, Mou-Yung Yeh <sup>\*</sup>



R = aryl, benzoyl, benzyl, *t*-butyl, cyclohexyl, naphthyl

tes from β-nitro alcohols in one pot: a facile pp 6508–6511

An efficient reduction protocol for the synthesis of  $\beta$ -hydroxycarbamates from  $\beta$ -nitro alcohols in one pot: a facile synthesis of (–)- $\beta$ -conhydrine

Partha Pratim Saikia, Gakul Baishya, Abhishek Goswami, Nabin C. Barua \*



Substituted azabicyclo[3.1.0]hexan-1-ols from aspartic and glutamic acid derivatives via titanium-mediated pp cyclopropanation

pp 6512-6513

Catherine A. Faler, Madeleine M. Joullié \*

pp 6501-6504

Asymmetric total synthesis of botcinic acid and its derivatives: synthetic revision of the structure of botcinolides pp 6514–6517 Hiroki Fukui, Seiichi Hitomi, Ryo-suke Suzuki, Tatsuhiko Ikeda, Yuma Umezaki, Keisuke Tsuji, Isamu Shiina \*



# 3-Butyl-1-methylimidazolinium borohydride ([bmim][BH<sub>4</sub>])—a novel reducing agent for the selective reduction of pp 6518–6520 carbon-carbon double bonds in activated conjugated alkenes

Jiayi Wang, Gonghua Song <sup>\*</sup>, Yanqing Peng, Yidong Zhu



A novel ionic reducing reagent, 3-butyl-1-methylimidazolium borohydride ([bmim][BH<sub>4</sub>]), was synthesized and successfully used for the selective reduction of carbon-carbon double bonds in conjugated alkenes as well as the  $\alpha_{\beta}$ -carbon-carbon double bonds in highly activated  $\alpha_{\beta}$ , $\beta_{\gamma}$ , $\delta$ -unsaturated alkenes. The reagent can be regenerated and reused several times without losing its activity.

#### A highly selective and synthetically facile aqueous-phase cyanide probe

Hao-Tao Niu, Xueliang Jiang, Jiaqi He, Jin-Pei Cheng \*  $\begin{array}{c} & & \downarrow \\ & \downarrow \\ & & \downarrow \\$ 

**Complexation of β-cyclodextrin with carborane derivatives in aqueous solution** Kiminori Ohta, Shunsuke Konno, Yasuyuki Endo <sup>\*</sup>



β-Cyclodextrin formed complexes with o-carborane derivatives in aqueous solution, and the association constants were estimated from NMR titration studies.

pp 6521-6524

pp 6525-6528

Copper salts, such as CuCl, Cul, Cucl<sub>2</sub> and Cu(OTf)<sub>2</sub>, were used to catalyze the intermolecular hydroamination of allenylamines to provide the corresponding 3-pyrrolines or

 $R^{1}$   $R^{2}$   $R^{2}$   $R^{3}$   $R^{1}$   $R^{2}$   $R^{1}$   $R^{2}$   $R^{1}$   $R^{2}$   $R^{1}$   $R^{2}$ 

H<sub>2</sub>O, rt, 2-12 h 15 examples up to 98% yield (n = 2)

#### **Copper-catalyzed intramolecular hydroamination of allenylamines to 3-pyrrolines or 2-alkenylpyrrolidines** Akiko Tsuhako, Daisuke Oikawa, Kazushi Sakai, Sentaro Okamoto \*

 $\begin{array}{c} H \\ R^{2} \\ N \\ H \\ R^{2} \\ N \\ H \\ R^{3} \\ cat. CuX \text{ or } CuX_{2} \\ CH_{2}Cl_{2}, \text{ rt} \\ H^{2} \\ R^{2} \\ R$ 

**Borax-catalyzed thiolysis of 1,2-epoxides in aqueous medium** Peng Gao, Peng-Fei Xu, Hongbin Zhai \*

Yutaka Nishiyama \*, Keiko Shimoura, Noboru Sonoda

Rhenium complex-catalyzed allylation of acetals with allyltrimethylsilane







pp 6533-6535



pp 6539-6542



2-alkenylpyrrolidines.

pp 6529-6532

## The role of neat substrates in phase-vanishing and tandem phase-vanishing reactions

Nicole Windmon, Veljko Dragojlovic \*



In tandem single-phase-phase-vanishing reaction, reactants in the top phase gave the intermediate Diels-Alder adduct, which in a subsequent triphasic phase-vanishing reaction with ICl afforded the iodolactonization product.

# Rate of formation of *N*-(hydroxymethyl)benzamide derivatives in water as a function of pH and their equilibrium pp 6547–6549 constants

X = 4-Cl
X = 4-H
X = 4-NO<sub>2</sub>

Ramana V. Ankem, John L. Murphy, Richard W. Nagorski \*

ο 2 4 6 8 10 12 pH Cyclic acetal formation between 2-pyridinecarboxyaldehyde and γ-hydroxy-α,β-acetylenic esters

# Cyclic acetal formation between 2-pyridinecarboxyaldehyde and $\gamma$ -hydroxy- $\alpha$ , $\beta$ -acetylenic ester Sami Osman, Kazunori Koide \*

 $\log k_{obsd} (s^{-1})$ 

-8



A new transformation between 2-pyridinecarboxyaldehyde and  $\gamma$ -hydroxy- $\alpha_i\beta$ -acetylenic esters to form highly functionalized cyclic acetals was discovered. This transformation proceeds under very mild conditions without any additives and is promoted by the basic nature of the pyridine ring.

#### **Efficient synthesis of primary 2-aminothiols from 2-aminoalcohols and methyldithioacetate** Guillaume Mercey, Delphine Brégeon, Annie-Claude Gaumont, Jocelyne Levillain <sup>\*</sup>, Mihaela Gulea <sup>\*</sup>



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pp 6553-6555



# 3-Hydroxy-4-oxo-4H-pyrido[1,2-a]pyrimidine-2-carboxylates—fast access to a heterocyclic scaffold for HIV-1 integrase inhibitors

Olaf D. Kinzel <sup>\*</sup>, Richard G. Ball, Monica Donghi, Courtney K. Maguire, Ester Muraglia, Silvia Pesci, Michael Rowley, Vincenzo Summa



R = H, OBn, NHCbz

### Enantioselective organocatalytic Mannich reactions of ferrocenecarbaldehyde

Guillem Valero, Andrea-Nekane Balaguer, Albert Moyano<sup>\*</sup>, Ramon Rios<sup>\*</sup>

pp 6559-6562



New synthetic method for 2,3-*trans*-2-methyl-tetrahydropyran-3-ol and oxepan-3-ol by unique insertion of a methyl pp 6563–6565 group

Atsushi Kimishima, Tadashi Nakata \*



# Asymmetric and efficient synthesis of homophenylalanine derivatives via Friedel–Crafts reaction with trifluoromethanesulfonic acid

pp 6566-6568

Ryo Murashige, Yuka Hayashi, Makoto Hashimoto \*



pp 6556-6558

pp 6569-6572

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# A brand-new Pd-mediated generation of benzyne and its [2+2+2] cycloaddition: $\delta$ -carbon elimination and concomitant decarboxylation

Hoo Sook Kim, Saravanan Gowrisankar, Eun Sun Kim, Jae Nyoung Kim \*



An alternative and facile purification procedure of amidation and esterification reactions using a medium fluorous pp 6573–6574 Mukaiyama reagent





Three new (oligo)thiophene bipendant-armed ligands, derived from 2-(aminomethyl)-15-crown-5, have been synthesized by reductive amination of formyl thiophenes in the presence of NaBH(OAc)<sub>3</sub>. The photophysical properties of the ligands were studied and they were also evaluated as chemosensors in the presence of Na(I), Ag(I), Pd(II), and Hg(II) cations in acetonitrile solution.

#### BCl<sub>3</sub>-promoted synthesis of benzofurans

Ikyon Kim<sup>\*</sup>, Sei-Hee Lee, Sunkyung Lee



pp 6579-6584

# A rational approach to emission ratio enhancement of chemodosimeters via regulation of intramolecular charge pp 6585–6588 transfer

Weiying Lin<sup>\*</sup>, Lin Yuan, Xiaowei Cao



**Intramolecularly two-centered cooperation catalysis for the synthesis of cyclic carbonates from CO<sub>2</sub> and epoxides pp 6589–6592 Xiang Zhang, Yin-Bao Jia, Xiao-Bing Lu<sup>\*</sup>, Bo Li, Hui Wang, Li-Cheng Sun<sup>\*</sup>** 



**Electrooxidative homo-coupling of arylboronic acids catalyzed by electrogenerated cationic palladium catalysts** pp Koichi Mitsudo <sup>\*</sup>, Takuya Shiraga, Hideo Tanaka <sup>\*</sup>

R−B(OH)<sub>2</sub> <u>activated cationic Pd</u> <u>electrooxidation</u> R−R

#### **OTHER CONTENT**

#### Corrigendum

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\*Corresponding author ()\* Supplementary data available via ScienceDirect

#### **COVER**

The structures of botcinic acid, botcinic acid methyl ester, 3-O-acetylbotcinic acid methyl ester, botcineric acid, and botcinin E have been unequivocally determined through their total syntheses and the structures of these compounds are identified with the revised forms of the natural products formerly assumed to be botcinolide, 4-O-methylbotcinolide, 3-O-acetyl-5-O-methylbotcinolide, homobotcinolide, and 2-epibotcinolide, respectively.

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