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### Tetrahedron Letters Vol. 51, No. 16, 2010

### Contents



# Unexpected alternative direction of a Biginelli-like multicomponent reaction with 3-amino-1,2,4-triazole as the urea component

pp 2095-2098

Nikolay Yu. Gorobets, Yuriy V. Sedash, Konstantin S. Ostras, Oleg V. Zaremba, Svetlana V. Shishkina, Vyacheslav N. Baumer, Oleg V. Shishkin, Sergiy M. Kovalenko, Sergey M. Desenko, Erik V. Van der Eycken\*





## **Saikachinoside A, a novel 3-prenylated isoguanine glucoside from seeds of** *Gleditsia japonica* Tadashi Kajimoto, Nobuwa Aoki, Emi Ohta, Yasushi Kawai, Shinji Ohta\*

#### pp 2099-2101



The structure of saikachinoside A was determined on the basis of spectroscopic data and X-ray crystallographic analysis.

# The first intramolecular Heck-Matsuda reaction and its application in the syntheses of benzofurans and indolespp 2102–2105Fernanda A. Siqueira, Jason G. Taylor, Carlos Roque D. Correia\*Percent and a contract of the synthese of benzofurans and indolesPercent and a contract of the synthese of benzofurans and indoles

Pd(OAc)<sub>2</sub> /CO

R = 0 or NR R = 1 or 2 R = 0 or RR R = 1 or 2 R = 0 or RR R = 0 or RR

We report, for the first time, the development of an efficient method for the intramolecular Heck reaction of arenediazonium salts in the synthesis of benzofuran and indole derivatives. In addition, this methodology allowed the synthesis of a series of dihydrobenzofuran acetic acid derivatives via a domino Heck–Matsuda coupling–carbonylation reaction.

#### **NF-31 color test uncovers 'hidden' alcohol functionalities in PEG-based resins for solid phase peptide synthesis** Lieselot L. G. Carrette, Dieter Verzele, Annemieke Madder\*

pp 2106-2108

# During solid phase peptide synthesis on novel aminomethyl-PEG-based resins, undesired coloration of resins was observed during color tests due to the presence of left-over alcohol functionalities in the base resin. These can participate in ongoing reactions and lead to unexplicable outcomes, if not taken into consideration. Silica sulfuric acid (SSA) as a solid acid heterogeneous catalyst for one-pot synthesis of substituted pyrroles under pp 2109–2114

NHAc

Silica sulfuric acid (SSA) as a solid acid heterogeneous catalyst for one-pot synthesis of substituted pyrroles under pp 21 solvent-free conditions at room temperature

Hojat Veisi









рр 2115-2118

#### **A simple and selective method for the O-AcCl removal using sodium borohydride** Emmanuelle Villedieu, Chrystel Lopin-Bon, Sabine Berteina-Raboin\*



#### Synthesis of the *trans*-fusarinine scaffold

Samuel Bertrand, Olivier Duval\*, Jean-Jacques Hélesbeux, Gérald Larcher, Pascal Richomme

pp 2119-2122



## Ru(III)-catalyzed oxidation of homopropargyl alcohols in ionic liquid: an efficient and green route to 1,2-allenic pp 2123–2126 ketones provide the set of the set of

Xuesen Fan\*, Yingying Qu, Yangyang Wang, Xinying Zhang, Jianji Wang

#### **Synthesis of non-glycosidically linked selenoether pseudodisaccharides** Viviane Fournière, Ian Cumpstey\*

HO Se OH HO OH YOH

pp 2127-2129

#### The efficiency of proton transfer in Kirby's enzyme model, a computational approach

Rafik Karaman



Proximity orientation due to hydrogen bonding in the ground state and transition state is the sole driving force for the remarkable acceleration of proton transfer in Kirby's system.

### Efficient synthesis of 3-acyl-5-hydroxybenzofurans via copper(II) triflate-catalyzed cycloaddition of unactivated 1,4-benzoquinones with 1,3-dicarbonyl compounds

Srinivasa Reddy Mothe, Dewi Susanti, Philip Wai Hong Chan\*



### A novel simple synthesis of bis(diorganoselenophosphoryl)selenides (R<sub>2</sub>PSe)<sub>2</sub>Se from secondary phosphines and pp 2141–2143 elemental selenium

Alexander V. Artem'ev, Nina K. Gusarova, Svetlana F. Malysheva, Igor A. Ushakov, Boris A. Trofimov\*



 $R = Ph(CH_2)_2, 4-t-BuC_6H_4(CH_2)_2, 4-MeOC_6H_4(CH_2)_2, 2-Napht(CH_2)_2$ 

75-92%

#### Efficient synthesis of (Z)- and (E)-methyl 2-(methoxyimino)-2-phenylacetate

Yong-Jin Wu\*, Stella Huang, Alicia Ng, Qi Gao, S. Roy Kimura, David R. Langley



Direct oximation of 2-oxo-2-phenylacetate (**3**) gave the (*Z*)-methyl 2-(methoxyimino)-2-phenylacetate (**1**) in 71% yield, while the *E* oxime **2** was prepared from **3** in 65% yield via oxime isomerization of 2-(methoxyimino)-2-phenylacetic acid (**5**). Computational studies suggest that the isomerization of **5** is thermodynamically driven, while the direct oximation of ketoester **3** is kinetically controlled.

pp 2144-2147

pp 2130-2135

pp 2136-2140

#### An elegant approach for stereocontrolled synthesis of furopyran building blocks

U. Murali Krishna



Stereocontrolled synthesis of furopyran building blocks was achieved employing a novel intramolecular [5+2] cycloaddition and Beckmann fragmentation as key steps.

### An asymmetric nickel-chromium coupling toward the synthesis of Baylis-Hillman adducts

#### pp 2151-2153

Francis G. Fang, Thomas E. Horstmann\*, Jonathan Therrien



#### Stereoselective total synthesis of (+)-polyrhacitide A

J. S. Yadav\*, G. Rajendar, B. Ganganna, P. Srihari



TFA (10 mol%), rt, DMF or water

111

L

N–Me

Ρh

HO

up to 93 % yield

up to 99:1 de, >99% ee

#### Highly enantioselective synthesis of 3-cycloalkanone-3-hydroxy-2-oxindoles, potential anticonvulsants Monika Raj, Nagarathanam Veerasamy, Vinod K. Singh\*

=0

Highly enantioselective catalytic synthesis of 3-cycloalkanone-3-hydroxy-2-oxindoles was achieved by using primary-tertiary diamine-Brønsted acid catalyst in both organic medium and aqueous medium.

H<sub>2</sub>N

#### pp 2148-2150

2083





### Syntheses of structurally diverse amino acids, including $\delta$ -hydroxylysine, using the acyl nitroso Diels–Alder reaction

Lee Bollans, John Bacsa, Daniel A. O'Farrell, Scott Waterson, Andrew V. Stachulski\*



The acyl nitroso Diels–Alder reaction is ideally suited to the synthesis of diverse amino acids, as it introduces N and O functionalities in a 1,4-relationship with full control of relative stereochemistry. We have utilised this reaction in a short synthesis of  $(\pm)$ - $\delta$ -hydroxylysine, an important constituent of collagen, and describe two further syntheses together with corroborative X-ray structural data.

### Flavouring and odorant thiols from renewable natural resources by In<sup>III</sup>-catalysed hydrothioacetylation and lipase-catalysed solvolysis

Reine-Marie Dia, Rim Belaqziz, Abderrahmane Romane, Sylvain Antoniotti\*, Elisabet Duñach



**Enantioselective alkynylation of ketones with trimethoxysilylalkynes using lithium binaphtholate as a catalyst** Kana Tanaka, Tomohiro Ueda, Tomonori Ichibakase, Makoto Nakajima<sup>\*</sup>





**Mild and efficient oxy-iodination of alkynes and phenols with potassium iodide and** *tert*-butyl hydroperoxide K. Rajender Reddy<sup>\*</sup>, M. Venkateshwar, C. Uma Maheswari, P. Santhosh Kumar

 $R-C\equiv C-H + KI \xrightarrow{TBHP, MeOH} R-C\equiv C-I$  17 Examples, Upto 97% Yield  $R \xrightarrow{TBHP, MeOH} R \xrightarrow{R} OH$  I5 Examples, Upto 92% Yield

An efficient synthesis of 1-iodoalkynes and iodophenols was easily achieved by employing simple KI and TBHP. The reaction does not involve the use of a metal and base combination. A variety of substituted alkynes and phenols were prepared with good to excellent yield.

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pp 2164-2167

pp 2160-2163



pp 2168-2169



#### Two new fluorescent heterocyclic perimidines: first syntheses, crystal structure, and spectral characterization

G. Varsha, V. Arun, P. P. Robinson, Manju Sebastian, Digna Varghese, P. Leeju, V. P. Jayachandran, K. K. M. Yusuff\*



An efficient one-pot synthesis of two new heterocyclic perimidines in good yields is presented. This methodology provides a simple, straightforward synthetic route to these interesting classes of heterocycles. Crystal structure, solvatochromism, and antibacterial activity of these organic compounds are discussed.

Selective Wittig olefination in aqueous media for the rapid preparation of unsaturated 7,3-lactone-α-p-xylofuranose derivatives

Elsie Ramirez, Mario Sánchez, Rosa L. Meza-León\*, Leticia Quintero\*, Fernando Sartillo-Piscil\*



A selective and aqueous Wittig olefination was developed for the rapid preparation of unsaturated 7,3-lactone-α-D-xylofuranose derivatives.

#### Conjugate addition of amines to chiral 3-aziridin-2-yl-acrylates

Doo-Ha Yoon, Hyun-Joon Ha\*, Bong Chan Kim, Won Koo Lee\*



(*E*)-3-(*meso*-Octamethylcalix[4]pyrrol-2-yl)propenal: a versatile precursor for calix[4]pyrrole-based chromogenic anion sensors

Andreia S. F. Farinha, Augusto C. Tomé\*, José A. S. Cavaleiro



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pp 2178-2180

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## Formation of trialkyl quinoline-2,3,4-tricarboxylates by reaction of isatin, dialkyl acetylenedicarboxylates, and sodium 0-alkyl carbonodithioates

Issa Yavari\*, Samereh Seyfi, Zinatossadat Hossaini



Synthesis and properties of 1,3,3-trimethylspiro[indoline-2,3'-naphtho[2,1-*b*][1,4]oxazin]-6'-amine, a novel, red colouring photochromic spirooxazine

Mark York, Richard A. Evans\*



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 $(\mathbf{i})^{\dagger}$ 

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