

Tetrahedron Letters Vol. 46, No. 35, 2005

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COMMUNICATIONS

Determination of absolute configuration of *Pandanus* alkaloid, pandamarilactonine-A, by first asymmetric total synthesis

pp 5795-5797

Hiromitsu Takayama,* Rie Sudo and Mariko Kitajima

First total synthesis of 3-aza-11-thia-1,3,5(10)-trieno steroids

Khalid Oumzil, Malika Ibrahim-Ouali* and Maurice Santelli*

pp 5799-5801

A novel route to 3-aza-11-thia-1,3,5(10)-trieno steroids is described.

 TiF_4 -mediated biomimetic alkylation-cyclization cascade reaction of 2-trimethylsilylmethyl-1,5-dienes pp 5803-5806 with aldehydes

Luigi Anastasia, Elios Giannini, Giuseppe Zanoni and Giovanni Vidari*

Titanium tetrafluoride promotes the addition of aldehydes to 2-trimethylsilylmethyl-1,5-dienes with concomitant biomimetic cyclization, affording 1,3-cis-disubstituted methylenecyclohexanes in good yields and high selectivity.

Preparation of enantiomerically pure (E)- β -sulfinylenones from β -ketoesters

pp 5807-5810

Naïma Khiri, Amandine Lefranc, Guy Solladié and Gilles Hanquet*

An efficient synthesis of N-protected threo (2R,3S)-3-amino-1,2-epoxy phenylbutane

pp 5811-5814

Takayuki Suzuki, Yutaka Honda and Kunisuke Izawa*

Bn₂N
$$\stackrel{O}{\longrightarrow}$$
 Bn₂N $\stackrel{O}{\longrightarrow}$ Bn₂N $\stackrel{O}{\longrightarrow}$ OH $\stackrel{R^1}{\longrightarrow}$ OAc $\stackrel{R^1}{\longrightarrow}$ $\stackrel{O}{\longrightarrow}$ $\stackrel{R^2}{\longrightarrow}$ $\stackrel{N}{\longrightarrow}$ $\stackrel{N}{\longrightarrow}$

Synthesis of *threo* aminoalkyl epoxides involving Pummerer rearrangement of amino keto sulfoxide followed by highly diastereoselective reduction and stereospecific epoxidation.

Synthetic studies of pestalotiopsin A: asymmetric synthesis of the 2-oxabicyclo[3.2.0]heptane substructure

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Ken-ichi Takao, Hiroshi Saegusa, Tomohiro Tsujita, Takenori Washizawa and Kin-ichi Tadano*

The furan approach to carbocyclic systems. Synthesis of cyclohexane derivatives from butenolides through an intramolecular Michael addition

pp 5819-5822

Generosa Gómez, Hilda Rivera, Isela García, Laura Estévez and Yagamare Fall*

Copper catalyzed asymmetric conjugate addition-bromination of α,β -unsaturated ketones: a highly efficient one-pot reaction for the synthesis of chiral α -bromo- β -alkylketones

pp 5823-5826

Kangying Li and Alexandre Alexakis*

Oxazoline as a useful tool in organic synthesis: preparation of 4-aryl-1,2,3,4-tetrahydroisoquinoline alkaloid skeleton

pp 5827-5830

Julio A. Seijas,* M. Pilar Vázquez-Tato,* M. Montserrat Martínez and Moacir G. Pizzolatti

Key steps are based on oxazoline chemistry: nucleophilic substitution in an *ortho*-methoxyphenyloxazoline and a 1,6-conjugate addition to *o*-styrylphenyloxazoline.

Regioselective thiocyanation of aromatic and heteroaromatic compounds using ammonium thiocyanate and oxone

pp 5831-5834

Guaili Wu, Qiang Liu, Yinglin Shen, Wentao Wu and Longmin Wu*

$$+ NH_4SCN$$
 $Oxone$ CH_3OH, π H $1a-1f$ $2a-2f$

isolated yield of the products up to 98%

Indoles, pyrrole, aromatic amino compounds and 2-methoxycarbazole have been regioselectively thiocyanated using ammonium thiocyanate as a thiocyanation reagent and oxone as an oxidant.

Novel and efficient regioselective enzymatic approach to 3'-, 5'- and 3', 5'-di-O-crotonyl 2'-deoxynucleoside derivatives

pp 5835-5838

Alba Díaz-Rodríguez, Susana Fernández, Iván Lavandera, Miguel Ferrero and Vicente Gotor*

$$R^{1}O$$
 $R^{2}O$
 $R^{1}=CH_{3}CH=CHCO; R^{2}=H$
 $R^{1}=H; R^{2}=CH_{3}CH=CHCO$
 $R^{1}=R^{2}=CH_{3}CH=CHCO$
 $R^{2}=CH_{3}CH=CHCO$

Regioselective syntheses of several *O*-crotonyl 2'-deoxynucleoside derivatives have been efficiently achieved using a biocatalytic methodology.



A new approach to the synthesis of oligomers. Application to the synthesis of p-phenylene thioether wires

pp 5839-5840

José Vicente,* José A. Abad and Rosa M. López-Nicolás

Oligothioethers $4\text{-RC}_6\text{H}_4(\text{SC}_6\text{H}_4\text{-}4)_n\text{X}$ (n=1-3; X=Br, I; $R=\text{NO}_2$. n=1-3; X=Br; R=MeO. n=1 and 2; X=I; R=MeO. n=4; X=Br; $R=\text{NO}_2$) have been prepared through a process involving (i) palladium-catalyzed C-S coupling between $4\text{-RC}_6\text{H}_4(\text{SC}_6\text{H}_4\text{-}4)_{n-1}\text{I}$ and $4\text{-BrC}_6\text{H}_4\text{SH}$ to give $4\text{-RC}_6\text{H}_4(\text{SC}_6\text{H}_4\text{-}4)_n\text{Br}}$ and (ii) coppercatalyzed replacement of Br by I.



A convenient and efficient method for the synthesis of mono- and N,N-disubstituted thioureas

pp 5841–5843

Mitsuo Kodomari,* Masato Suzuki, Keiko Tanigawa and Tadashi Aoyama

Structural elucidation of new ferulic acid-containing phenolic dimers and trimers isolated from maize bran

pp 5845-5850

Mirko Bunzel,* John Ralph, Carola Funk and Hans Steinhart

The structures of four new phenolic dimers and trimers that contain ferulic acid moieties isolated from maize bran fiber were established by 1D/2D NMR and mass spectrometry. The trimers were found to expand the number of products potentially involved in cell wall cross-linking whereas the biological role of the dimers partially remains uncertain.

Selective bifunctionalization of pyrido[2,3-d]pyrimidines in positions 2 and 4 by SN_{Ar} and palladium-catalyzed coupling reactions

pp 5851-5855

G. Lavecchia, S. Berteina-Raboin* and G. Guillaumet

$$\begin{array}{c|c} CI & & & & \\ N & N & CI & & & \\ N & N & CI & & \\ \end{array} \begin{array}{c} Nu_2 & & & \\ N & N & R_1 \\ \end{array}$$

Six new indole alkaloids from Gelsemium sempervirens Ait. f.

pp 5857-5861

Noriyuki Kogure, Chika Nishiya, Mariko Kitajima and Hiromitsu Takayama*

Simultaneous accumulation of both skeletal and appendage-based diversities on tandem Ugi/Diels-Alder products

pp 5863-5866

Masato Oikawa,* Minoru Ikoma and Makoto Sasaki

By means of diversity-oriented organic synthesis, a 7-oxanorbornene skeleton was transformed into two different skeletons efficiently.

Novel synthesis of a unique helical quinone derivative by coupling reaction of 2-hydroxybenzo[c]phenanthrene

pp 5867-5869

Michinori Karikomi,* Mari Yamada, Yasushi Ogawa, Hirohiko Houjou, Katsura Seki, Kazuhisa Hiratani, Kazuo Haga and Tadao Uyehara

Palladium-catalyzed and organozinc-promoted synthesis of dienes from allylic esters possessing an acyloxy or alkoxy group

pp 5871-5875

Hatsuhiko Hattori, Masahiro Katsukawa and Yuichi Kobayashi*

$$C_5H_{11} \xrightarrow{OC(=O)R} C_5H_{11} \xrightarrow{BuZnCl} (3 \text{ equiv})$$

$$C_5H_{11} \xrightarrow{OC(=O)R} C_5H_{11} \xrightarrow{C_5H_{11}} C_5H_{11}$$

$$C_5H_{11} \xrightarrow{OC(=O)R} C_5H_{11} \xrightarrow{C_5H_{11}} C_5H_{11}$$

Transesterification of various alcohols with vinyl acetate under mild conditions catalyzed by diethylzinc using N-substituted diethanolamine as a ligand

pp 5877-5879

Yoshiaki Shirae, Takashi Mino,* Tae Hasegawa, Masami Sakamoto and Tsutomu Fujita

ROH + OAC
$$\xrightarrow{\text{Et}_2\text{Zn}, 6}$$
 ROAC + CH₃CHO

PhMe, r.t.

HO N OH

6

Catalyst-free DMSO-promoted synthesis of cyanohydrin carbonates from aldehydes

pp 5881-5883

Katsuyuki Iwanami, Yumi Hinakubo and Takeshi Oriyama*

RCHO + NCCO₂R'
$$\xrightarrow{\text{MS 4A, DMSO}}$$
 $\xrightarrow{\text{OCO}_2\text{R'}}$ R CN up to 100% R = aryl, alkyl; R' = alkyl, benzyl, allyl

Biosynthetic studies on the antibiotics PF1140: a novel pathway for a 2-pyridone framework Yuta Fujita Hiroki Oguri and Hideaki Ojkawa*

pp 5885-5888

Yuta Fujita, Hiroki Oguri and Hideaki Oikawa*

The furan approach to oxacycles. Part 5: Synthesis of a chiral butenolide, building block towards biologically interesting natural products

pp 5889-5892

Marta Teijeira, Pedro Lois Suárez, Generosa Gómez, Carmen Terán and Yagamare Fall*

Synthesis of a photoactivatable phospholipidic probe containing tetrafluorophenylazide

pp 5893-5897

Qing Peng, Yi Xia, Fanqi Qu, Xiaojun Wu, Daniel Campese and Ling Peng*

A phospholipidic probe having the photoactivatable tetrafluorophenylazido group incorporated into the fatty acid chain was synthesized and characterized with a view to studying the lipid-lipid and lipid-protein interactions using a photolabeling approach.

Synthesis of triazolo- and tetrazolo-tetrahydroisoquinolines and isoquinolines via temperature controlled pp 5899-5902 palladium catalysed allene/azide incorporation/intramolecular 1,3-dipolar cycloaddition cascades

Xinjie Gai, Ronald Grigg,* Shuleewan Rajviroongit, Saiphon Songarsa and Visuvanathar Sridharan

A highly efficient synthesis of unnatural L-sugars from D-ribose

pp 5903-5905

Mikyung Yun, Hyung Ryong Moon,* Hea Ok Kim, Won Jun Choi, Yong-Chul Kim, Chul-Seung Park and Lak Shin Jeong*

A preparative and short synthesis of L-ribose and L-apiose was accomplished starting from D-ribose via stereoselective cisdihydroxylation and C2-hydroxymethylation, respectively.

Efficient and eco-friendly process for the synthesis of N-substituted 4-methylene-2oxazolidinones in ionic liquids

pp 5907-5911

Qinghua Zhang, Feng Shi, Yanlong Gu, Jing Yang and Youquan Deng*

Ultrasonically activated reduction of substituted nitrobenzenes to corresponding *N*-arylhydroxylamines pp 5913–5917 Stéphane Ung, Annie Falguières, Alain Guy and Clotilde Ferroud*

An ultrasonic activation using zinc dust allows an efficient conversion in quite quantitative yields in few minutes.

A novel electron-transfer mediated reaction leading to lepidopterene

pp 5919-5922

Jean J. Vadakkan, Rekha R. Mallia, Sreedharan Prathapan, Nigam P. Rath and Perupparampil A. Unnikrishnan*

$$\frac{\mathsf{DMAD}}{\Delta}_{\mathsf{non-polar solvent}}$$

Glycosylation reactions with 'disarmed' thioglycoside donors promoted by N-iodosuccinimide and $HClO_4$ -silica

pp 5923-5925

Balaram Mukhopadhyay, Beatrice Collet and Robert A. Field*

New formation of 4,5,6,7-tetrahydroisoindoles

pp 5927-5929

Duen-Ren Hou,* Yih-Dar Hsieh and Yi-Wei Hsieh



Modulation of internal charge transfer (ICT) in a bay region hydroxylated perylenediimide (PDI) chromophore: a chromogenic chemosensor for pH

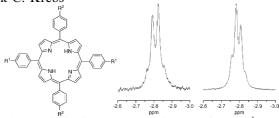
pp 5931-5933

Funda Yukruk and Engin U. Akkaya*

Aspects of investigating scrambling in the synthesis of porphyrins: different analytical methods

pp 5935-5939

Christian B. Nielsen* and Frederik C. Krebs



The porphyrin skelleton with a trans-A₂B₂ substitution pattern and NH-regions of ¹H NMR spectra for mixtures of porphyrins. Each spectrum is recorded for a mixture of porphyrins and clearly show that the NH resonances depend on the meso-substituent. In comparison to other analytical methods used (e.g. HPLC and X-ray), the NMR method is superior for looking at product distributions from porphyrin synthesis.



A cyclic diphosphinite by a formal [4+4] cycloaddition reaction of β-phosphaenone

pp 5941-5944

Xufang Chen, Weizhong Chen, Tong Ren and John D. Protasiewicz*

$$Ar_{P=PMe_3} + OOO_{OP-Ar}$$

$$Ar = 2,6-Mes_2C_6H_3$$

$$Ar = 3$$



Mild one-pot conversion of carboxylic acids to amides or esters with Ph₃P/trichloroisocyanuric acid Rogério da C. Rodrigues, Igor M. A. Barros and Edson L. S. Lima*

pp 5945-5947

Synthesis of spirooxindoles via asymmetric 1,3-dipolar cycloaddition

pp 5949-5951

Ke Ding, Guoping Wang, Jeffrey R. Deschamps, Damon A. Parrish and Shaomeng Wang*

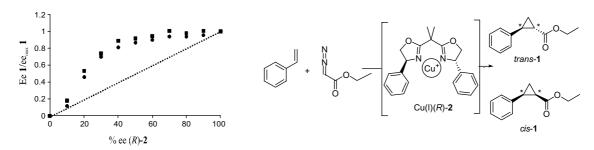
Aqueous phase synthesis of thiazoles and aminothiazoles in the presence of $\beta\text{-cyclodextrin}$

pp 5953-5955

M. Narender, M. Somi Reddy, R. Sridhar, Y. V. D. Nageswar and K. Rama Rao*

$$H_{1}$$
 H_{2} H_{2} H_{2} H_{2} H_{2} H_{3} H_{2} H_{4} H_{2} H_{2} H_{3} H_{4} H_{5} H_{5

A positive nonlinear effect in catalytic asymmetric cyclopropanation of styrene with ethyl diazoacetate pp 5957–5959 Tomislav Portada, Marin Roje, Zdenko Hameršak and Mladen Žinić*



Heteroaryl manganese reagents: direct preparation and reactivity studies

pp 5961-5964

Reuben D. Rieke,* YoungSung Suh and Seung-Hoi Kim

Direct preparation of heteroaryl manganese reagents was performed. The resulting organomanganese reagents were also coupled with electrophiles.



New selective O-debenzylation of phenol with Mg/MeOH

pp 5965-5967

Wei Huang, Xu Zhang, Hong Liu,* Jianhua Shen and Hualiang Jiang*

A new method for the generation of azoalkenes from ketohydrazones and its application to the synthesis of tetrahydropyridazine derivatives

pp 5969-5970

S. L. Gaonkar and K. M. Lokanatha Rai*

The reaction of ketohydrazones containing an α -methylene group with chloramine-T followed by treatment with triethylamine leads to the formation of azoalkenes via an α -chloroazo-compound, which can react intermolecularly and in situ with olefinic compounds to produce tetrahydropyridazine derivatives in good yields.

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*Corresponding author

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