

Tetrahedron Letters Vol. 47, No. 52, 2006

Contents

COMMUNICATIONS

Rhodium-catalyzed asymmetric arylative ring opening of bicyclic hydrazines

pp 9173-9176

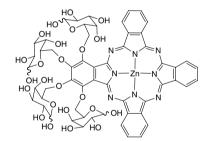
Ferruccio Bertolini, Franco Macchia and Mauro Pineschi*

excellent regio- and diastereoselectivity and moderate-to-good ee's

A practical asymmetric ring opening of bicyclic hydrazines with a variety of arylating agents was realized by means of rhodium(I)-catalysis.



[1,2,3,4-Tetrakis(α/β-D-galactopyranos-6-yl)phthalocyaninato|zinc(II): a water-soluble phthalocyanine pp 9177–9180 Anderson O. Ribeiro, João P. C. Tomé, Maria G. P. M. S. Neves, Augusto C. Tomé, José A. S. Cavaleiro,* Yassuko Iamamoto and Tomás Torres





 $\label{lem:cyclopropyl} Cyclopropyl \ carbenoid \ insertion \ into \ alkenylzir conocenes — a \ convergent \ synthesis \ of \ alkenylcyclopropanes \ and \ alkylidenecyclopropanes$

pp 9181-9185

Emma Thomas, Alexander N. Kasatkin and Richard J. Whitby*

$$R^{1} \xrightarrow{ZrCp_{2}Cl} + \underbrace{R^{2} R^{3}}_{Li} \xrightarrow{R^{2}} \underbrace{R^{3}}_{ZrCp_{2}Cl} \xrightarrow{R^{4}CHO,} \underbrace{R^{2} R^{3}}_{BF_{3},Et_{2}O} \xrightarrow{R^{2}} \underbrace{R^{3}}_{H} \xrightarrow{R^{1}} or \underbrace{R^{3}}_{R^{1}} \xrightarrow{QH} \underbrace{R^{3}}_{R^{1}}$$

An efficient Mitsunobu coupling to adenine-derived carbocyclic nucleosides

pp 9187-9189

Xue-qiang Yin, Wei-kuan Li and Stewart W. Schneller*

$$\begin{array}{c|c} N(Boc)_2 & N(Boc)_2 \\ \hline N & N \\ N & N \\ \hline N & ROH \\ \hline Ph_3P, DIAD \\ \hline R_2 & R_1 \\ \end{array}$$

A new efficient glycosylation method employing glycosyl pentenoates and PhSeOTf

pp 9191-9194

Tae Jin Choi, Ju Yuel Baek, Heung Bae Jeon and Kwan Soo Kim*

A concise and efficient synthesis of salvinal from isoeugenol via a phenoxenium ion intermediate

pp 9195-9197

Eng-Chi Wang, Yung-Shung Wein and Yueh-Hsiung Kuo*

Oxidative dimerization of primary alcohols to esters catalyzed by iridium complexes

pp 9199-9201

Aki Izumi, Yasushi Obora, Satoshi Sakaguchi and Yasutaka Ishii*

Primary alcohols undergo efficiently oxidative dimerization by iridium complexes under air without any solvent to form esters in fair to good yields.

An improved synthesis of morpholino-glycoamino acids

pp 9203-9206

Marko Anderluh

The current synthesis of hybrid morpholino-glycoamino acids through double reductive amination is characterized by modest yields and lengthy reaction times. We propose an optimized procedure that results in improved yields and the shortest reaction times reported so far.

Rapid generation of molecular complexity using 'sequenced' multi-component reactions: one-pot synthesis of 5,5'-disubstituted hydantoins from methyleneaziridines

pp 9207-9209

Cyril Montagne, Jason J. Shiers and Michael Shipman*



N-Phenyltriazolinedione as an efficient, selective, and reusable reagent for the oxidation of thiols to disulfides

pp 9211-9213

Angelos Christoforou, Georgia Nicolaou and Yiannis Elemes*

$$2RSH \xrightarrow{\begin{array}{c} Ph \\ O \\ N=N \end{array}} RS-SR + \xrightarrow{\begin{array}{c} Ph \\ N=N \end{array}} N-N \\ or \\ no solvent \end{array}$$

A new method for the oxidation of thiols to disulfides with N-phenyltriazolinedione as the oxidizing agent is described. The method is characterized by short reaction times at rt, simple work-up, and very good to excellent isolated product yields.

General strategy for a short and efficient synthesis of 3-hydroxy-4-methylprolines (HMP)

pp 9215-9219

Debendra K. Mohapatra,* Dhananjoy Mondal, Mukund S. Chorghade and Mukund K. Gurjar



Heteropolyacid-silica mediated [3+2] cycloaddition of azomethine ylides—a facile multicomponent one-pot synthesis of novel dispiroheterocycles

pp 9221-9225

A. R. Suresh Babu and R. Raghunathan*

Dual-controlled dithienylmaleimide switch containing ferrocene units

pp 9227-9231

Lei Sun and He Tian*

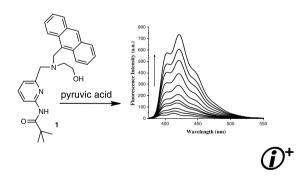
A novel photochromic dithienylmaleimide (TMF) appended with two ferrocene units was synthesized, which showed obvious changes in the emission, the redox potential and the magnetism between the open-ring and closed-ring forms of TMF. The ring-opening reaction could be induced by electrochemical redox.



Effect of a hydroxyl group in an anthracene-labelled pyridine amide receptor in molecular recognition of α pp 9233–9237 α -keto and hydroxy monocarboxylic acids

Kumaresh Ghosh* and Goutam Masanta

To ascertain the role of a hydroxyl group in carboxylic acid recognition, anthracene-labelled pyridine amide sensor 1 was designed and synthesized. The sensor functions as an 'off–on' fluorescence switch for $\alpha\text{-keto}$ and -hydroxy acids. The binding properties were studied using 1H NMR, fluorescence and UV–vis spectroscopic methods. Sensor 1 is selective for pyruvic acid.



Polymer-supported DABCO-palladium complex as a stable and reusable catalyst for room temperature pp 9239–9243 Suzuki-Miyaura cross-couplings of aryl bromides

Jin-Heng Li,* Xi-Chao Hu and Ye-Xiang Xie

ArBr + Ar'B(OH)₂
$$\xrightarrow{\text{DABCO-Pd complex}}$$
 Ar-Ar
 $K_2\text{CO}_3$, rt



$Palladium (0) - catalyzed \ addition \ of \ CFBr_3 \ to \ olefins: \ synthesis \ of \ 1,1,3-tribromo-1-fluoroal kanes \ and \ 1,2-difluoroal kenes$

pp 9245-9248

B. Rama Raju, E. K. Pramod Kumar and Anil K. Saikia*

where R=R' = H, alkyl, aryl; R" = H, Br



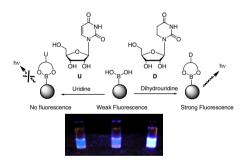
Direct C–H arylation of 3-methoxythiophene catalyzed by Pd. Application to a more efficient synthesis pp 9249–9252 of π -alkoxy-oligothiophene derivatives

A. Borghese,* G. Geldhof and L. Antoine

Selective fluorescence-based detection of dihydrouridine with boronic acids

pp 9253-9256

Delphine Luvino, Michael Smietana* and Jean-Jacques Vasseur*





Mannich-type reactions in a colloidal solution formed by sodium tetrakis(3,5-trifluoromethylphenyl)-borate as a catalyst in water

pp 9257-9259

Chi-Tsing Chang, Bei-Sih Liao and Shiuh-Tzung Liu*

$$R_1$$
 CHO O NaBAr₄ R_2 NH O R_2 NH_2 R_3 R_4 R_4 R_4 R_5 R_6 R_7 R_8



The asymmetric hydrogenation of 2-phenethylacrylic acid as the key step for the enantioselective synthesis of Citralis Nitrile $^{\otimes}$

pp 9261-9265

Alberto Scrivanti,* Sara Bovo, Alessandra Ciappa and Ugo Matteoli

Recyclable and highly active cationic 2,2'-bipyridyl palladium(II) catalyst for Suzuki cross-coupling reaction in water

pp 9267-9270

Wei-Yi Wu, Shao-Nung Chen and Fu-Yu Tsai*

Tandem epoxysilane rearrangement/Wittig-type reactions using γ -phosphinoyl- and γ -phosphonio- α , β -epoxysilane

pp 9271-9273

Michiko Sasaki, Mai Horai and Kei Takeda*

$${}^{t}\mathsf{BuMe}_{2}\mathsf{Si} \xrightarrow{\mathsf{O}} {}^{+}\mathsf{OTf} \underset{\mathsf{PPh}_{3}}{\overset{1. \ n\text{-}\mathsf{BuLi}}{\underbrace{\mathsf{DSiMe}_{2}\mathsf{Bu}^{t}}}} \underbrace{\mathsf{OSiMe}_{2}\mathsf{Bu}^{t}}_{\mathsf{R}}$$

Diazabutadiene: a simple and efficient ligand for copper-catalyzed N-arylation of aromatic amines

pp 9275-9278

Yu-Hua Liu, Chen Chen and Lian-Ming Yang*



Base-catalyzed cyclization of monofluorodienynes: a new route to substituted fluorobenzene derivatives pp 9279–9281 Yi Wang and Donald J. Burton*



Aromatization of Hantzsch 1,4-dihydropyridines and 1,3,5-trisubstituted pyrazolines with HIO_3 and I_2O_5 in water

pp 9283-9285

Lingzhi Chai, Yankai Zhao, Qiuju Sheng and Zhong-Quan Liu*

Hantzsch 1,4-dihydropyridines and 1,3,5-trisubstituted pyrazolines were converted to the corresponding pyridines and pyrazoles efficiently by the treatment of a catalytic amount of HIO_3 or I_2O_5 in water.

R=alkyl, aryl and heterocyclic groups

Yields: almost all up to 100%

R2,R3,R4=aryl groups

Yields: almost all up to 100%

A recyclable fluorous organocatalyst for Diels-Alder reactions

pp 9287-9290

Qianli Chu, Wei Zhang* and Dennis P. Curran

Endo:Exo = 93.4:6.6, Endo ee% = 93.4

A chiral fluorous imidazolidinone catalyst provides consistently high enantioselectivities in Diels-Alder reactions. The catalyst can be readily separated from the reaction mixture by fluorous solid-phase extraction (F-SPE), and recovered in excellent purity for direct reuse.

Highly diastereoselective synthesis of new chromenylaminoanthraquinones through a one-pot, three-component hetero Diels-Alder reaction

pp 9291-9295

Vikram Gaddam, Devanga K. Sreenivas and Rajagopal Nagarajan*

$$\begin{array}{c} O \\ O \\ O \\ O \\ NH_2 \\ R = H, Cl, Br, CH_3, OCH_3 \end{array} \begin{array}{c} PPh_3.HClO_4 \\ OEt \\ \hline \\ OET \\ OET \\ \hline \\ OET \\ OET \\ \hline \\ OET \\ OET \\ OET \\ \hline \\ OET \\ OET$$

A new and efficient, diastereoselective, one-pot synthesis of chromenylaminoanthraquinones derivatives through hetero Diels-Alder reaction of 1-aminoanthraquinone and salicylaldehydes with electron-rich alkenes is reported.



Design and synthesis of a Pt(II) nanoscopic trigonal bipyramidal cage using a new tripodal ester-containing ligand

pp 9297-9300

Sushobhan Ghosh and Partha Sarathi Mukherjee*

The synthesis of a new tripodal ester-containing ligand and its self-assembly into a Pt(II) nanoscopic 3D close framework are described.

$$CH_3NO_2 / 60 \, ^{\circ}C$$

$$= cis-(dppe)Pt(OTf)_2$$

A ring closing metathesis approach to the indole alkaloid mitralactonine

Subhash P. Chavan,* Pallavi Sharma, R. Sivappa and Uttam R. Kalkote

pp 9301-9303

$$\bigcap_{\substack{N\\ M \in O_2C}} \bigcap_{O} \longrightarrow \bigcap_{\substack{N\\ H}} \bigcap_{\substack{N\\ H}} \bigcap_{\substack{N\\ RCM}}$$

An efficient utilisation of RCM leading to a convenient synthesis of a pentacyclic indole alkaloid is described.

New strategy for the synthesis of phosphatase inhibitors TMC-69-6H and analogs

pp 9305-9308

Nicolas Brondel, Brigitte Renoux* and Jean-Pierre Gesson

TMC-69-6H R = Me, R1 = OH

Convenient one-step synthesis of a medicinally relevant benzopyranopyridine system

pp 9309-9312

Nikolai M. Evdokimov, Artem S. Kireev, Andrey A. Yakovenko, Mikhail Yu. Antipin, Igor V. Magedov* and Alexander Kornienko*

Phosphine-catalyzed nitroaldol reactions

Jason A. Weeden and John D. Chisholm*

pp 9313-9316



pp 9317-9319

Indium triflate mediated acetalization of aldehydes and ketones

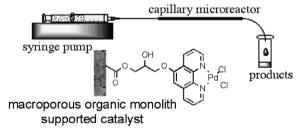
Brendan M. Smith and Andrew E. Graham*

$$R^{1} \xrightarrow{\text{In(OTf)}_{3} \text{ (1 mol\%)}} \frac{\text{MeO}}{\text{CH(OMe)}_{3}, \text{CH}_{2}\text{Cl}_{2}, \text{ rt, 5 min}} \xrightarrow{\text{MeO}} \frac{\text{OMe}}{R^{1}}$$

Macroporous monolith supports for continuous flow capillary microreactors

pp 9321-9324

Katrina F. Bolton, Allan J. Canty, Jeremy A. Deverell, Rosanne M. Guijt,* Emily F. Hilder, Thomas Rodemann and Jason A. Smith*



A new flow-through microreactor device utilises a macroporous monolith for supporting palladium catalysts for organic synthesis.

Potassium phosphate or silica sulfuric acid catalyzed conjugate addition of thiols to α,β -unsaturated ketones at room temperature under solvent-free conditions

pp 9325-9328

D. M. Pore,* M. S. Soudagar, U. V. Desai,* T. S. Thopate and P. P. Wadagaonkar

$$R$$
 + R "SH $\frac{SSA/K_3PO_4}{RT, neat}$ R R SR "

Potassium phosphate and silica sulfuric acid have been found to be useful, highly efficient catalysts for conjugate addition of thiols to α,β -unsaturated ketones under solvent-free conditions, at room temperature. Silica sulfuric acid (SSA) was found to be suitable for electron-deficient enones while potassium phosphate was found to effect thia-Michael addition with both electron-deficient and electron-rich conjugated ketones.

A novel protocol for the generation of tropothione and its trapping with electron deficient dienophiles pp 9329–9331 Vijay Nair,* K. G. Abhilash and Eringathodi Suresh

i. Lawesson's reagent, benzene, rt

Anion sensing using colorimetric amidourea based receptors incorporated into a 1,3-disubstituted calix[4]arene

pp 9333-9338

Eoin Quinlan, Susan E. Matthews* and Thorfinnur Gunnlaugsson*

An anionic chromogenic sensor based on protonated Reichardt's pyridiniophenolate

pp 9339-9342

Dalci C. Reis, Clodoaldo Machado and Vanderlei G. Machado*

Stereoselective syntheses of unnatural steroidal C(20R) aldehydes by ionic hydrogenation of C-20 pp 9343–9347 tertiary alcohols

Bapurao B. Shingate, Braja G. Hazra,* Vandana S. Pore, Rajesh G. Gonnade and Mohan M. Bhadbhade

Chemical synthesis of the HPV16 E7 protein

pp 9349-9352

Dmitri V. Filippov, Marij J. P. Welters, A. Rob P. M. Valentijn, Cornelis J. M. Melief, Gijsbert A. van der Marel, Sjoerd H. van der Burg, Herman S. Overkleeft and Jan W. Drijfhout*

Double catalytic enantioselective Michael addition reactions of tertiary nucleophile precursors—tertiary/ pp 9353–9357 quaternary and quaternary/quaternary carbon–carbon bond formations

Hiroshi Yanagita, Kazuhiro Kodama and Shuji Kanemasa*

Microwave-assisted synthesis of α -hydroxy ketone and α -diketone and pyrazine derivatives from α -halo pp 9359–9364 and α,α' -dibromo ketone

Takamitsu Utsukihara, Hiroaki Nakamura, Masashige Watanabe and C. Akira Horiuchi*

Microwave-assisted simple, one-pot, four-component synthesis of 2,4,6-triarylpyrimidines under solvent-free conditions

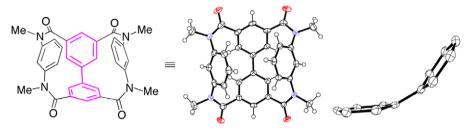
pp 9365-9368

Mehdi Adib,* Niusha Mahmoodi, Mohammad Mahdavi and Hamid Reza Bijanzadeh

Construction of anomalously bent biphenyl structure using conformational properties of calix[4]amide Masahide Tominaga, Terutaka Hatano, Masanobu Uchiyama, Hyuma Masu, Hiroyuki Kagechika

pp 9369-9371

Masahide Tominaga, Terutaka Hatano, Masanobu Uchiyama, Hyuma Masu, Hiroyuki Kagechika and Isao Azumaya *



(i)+

OTHER CONTENTS

Corrigendum p 9373

*Corresponding author

** Supplementary data available via ScienceDirect

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