

Tetrahedron Letters Vol. 47, No. 36, 2006

Contents

COMMUNICATIONS

A promising new catalyst family for enantioselective cycloadditions involving allenes and imines: chiral phosphines with transition metal- CH_2 -P: linkages

pp 6335-6337

Alexander Scherer and J. A. Gladysz*

Phosphines that feature coordinatively saturated metal fragments β to the phosphorus exhibit enhanced Lewis basicities and nucleophilicities. The readily available chiral rhenium complex 3 catalyzes [3+2] cycloadditions imines and allenes in high yields with ee values of 61–51%.



Rieke zinc as a reducing agent for common organic functional groups

pp 6339-6341

Jeremy Kroemer, Chris Kirkpatrick, Brian Maricle, Rick Gawrych, Michael D. Mosher and Don Kaufman*

$$C \equiv CH$$

$$Zn^*$$

$$THF/MeOH/H2O$$

$$R_3C$$

Stereoselective construction of the octalin unit of symbioimine using an intramolecular Diels-Alder reaction

pp 6343-6345

Emi Sakai, Keisuke Araki, Hiroyoshi Takamura and Daisuke Uemura*

New construction of the bicyclo[3.3.1]nonane system via Lewis acid promoted regioselective ring-opening reaction of the tricyclo[4.4.0.0^{5,7}]dec-2-ene derivative

pp 6347-6351

Masahito Abe and Masahisa Nakada*

N-Acyliminium ion cyclizations of trimethylsilylmethylallenes

pp 6353-6356

Sang Hee Kim, Hyung Gyu Kim, Hyunah Choo, Joo Hwan Cha, Ae Nim Pae, Hun Yeong Koh,* Bong Young Chung and Yong Seo Cho*

Chiral nitrogen-containing calix[4]crown—an excellent receptor for chiral recognition of mandelic acid pp 6357–6360 Xian-Xian Liu and Yan-Song Zheng*

Ph OH OH OH OH OH OH
$$K_{aR}$$
 OH K_{aS} OH K_{aS}

Chiral aminoalcohol NOBIN for instantaneous chirality control of racemic but *tropos* BIPHEP-Rh(I)-complexes: highly enantioselective ene-type cyclization of 1,6-enynes catalyzed by the Rh(I)-complexes without use of acid

pp 6361-6364

Koichi Mikami,* Shohei Kataoka, Kazuki Wakabayashi and Kohsuke Aikawa

 $70\%, 98\% \ ee \\ [Rh(DM-BIPHEP)(DABN)]SbF_6 \ (10 \ mol\%) + TfOH \ (20 \ mol\%) \ 20\%, 94\% \ ee$

Synthesis of substituted 2-amino-4-quinazolinones via ortho-fluorobenzoyl guanidines

pp 6365-6368

M. Jonathan Fray,* John P. Mathias, Carly L. Nichols, Yvonne M. Po-Ba and Hayley Snow

MeO
$$\downarrow$$
 F \downarrow MeO \downarrow F \downarrow MeO \downarrow M

Efficient total synthesis of (+)-exo-, (-)-endo-brevicomin and their derivatives via asymmetric organocatalysis and olefin cross-metathesis

pp 6369-6372

Sung-Gon Kim,* Tae-Ho Park and Bong Jin Kim

Enantiospecific synthesis of (-)-D-noviose from (-)-pantolactone

pp 6373-6375

D. Srinivasa Reddy,* Gujjary Srinivas, B. M. Rajesh, M. Kannan, Trideep V. Rajale and Javed Iqbal

A new entry to the synthesis of substituted azetidines: [2+2] cycloaddition reaction of four-membered endocyclic enamides to ketenes

pp 6377-6380

Antonio Carlos B. Burtoloso and Carlos Roque D. Correia*

The first example of a [2+2] cycloaddition reaction of a four-membered endocyclic enamide (2-azetine) to dichloroketene is described and constitutes a new entry to the synthesis of substituted azetidines.



N2, C8-disubstituted guanosine derivatives can form G-quartets

Mark S. Kaucher and Jeffery T. Davis*

A lipophilic guanosine with alkene groups attached to the nucleobase's N2 and C8 positions was synthesized with the intent of using olefin cross-metathesis to covalently capture an individual G-quartet. Modification of the N2 and C8 positions gave a derivative that formed a stable G-quartet structure in the presence of a cation template. This is the first example of a N2, C8-disubstituted guanosine forming a G-quartet.

Biindolyl-based molecular clefts that bind anions by hydrogen-bonding interactions

pp 6385-6388

Kyoung-Jin Chang, Min Kyung Chae, Changsoon Lee, Ji-Yeon Lee and Kyu-Sung Jeong*

Molecular clefts that consist of two indole NHs and two amide NHs were prepared and bind anions by multiple hydrogen bonds in a convergent manner.

New synthesis of SKF 89976A

pp 6389-6392

Meng-Yang Chang,* Si-Yun Wang and Chun-Li Pai



Aqueous phase mono-protection of amines and amino acids as N-benzyloxycarbonyl derivatives in the pp 6393–6396 presence of β -cyclodextrin

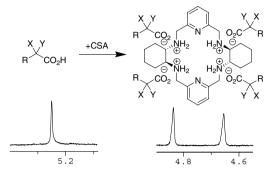
V. Pavan Kumar, M. Somi Reddy, M. Narender, K. Surendra, Y. V. D. Nageswar and K. Rama Rao*

HOOC NH₂
$$\frac{0.1 \text{ mol}\% \text{ β-CD, Cbz-Cl}}{\text{pH} = 8, \text{ rt, 1-15 min}}$$
 HOOC HOOC R Cbz Cbz R Cbz R Cbz R

An azamacrocyclic receptor as efficient polytopic chiral solvating agent for carboxylic acids

pp 6397-6400

Almudena González-Álvarez, Ignacio Alfonso* and Vicente Gotor*





A biomimetic total synthesis of (+)-intricarene

pp 6401-6404

Bencan Tang, Christopher D. Bray and Gerald Pattenden*

Efficient access to chiral N-substituted saccharin analogues via the directed *ortho*-lithiation of 3-N-arylsulfonyloxazolidin-2-ones

pp 6405-6408

A. Ould Aliyenne, J. E. Khiari, J. Kraïem, Y. Kacem and B. Ben Hassine*

Ar =
$$(3)$$
; (3) (4)

Efficient synthesis of chiral phenethylamines: preparation, asymmetric hydrogenation, and mild deprotection of ene-trifluoroacetamides

pp 6409-6412

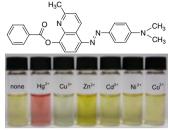
Shawn P. Allwein,* J. Christopher McWilliams,* Elizabeth A. Secord, Dale R. Mowrey, Todd D. Nelson and Michael H. Kress

Azo 8-hydroxyquinoline benzoate as selective chromogenic chemosensor for Hg²⁺ and Cu²⁺

pp 6413-6416

Yun-Fei Cheng, Da-Tong Zhao, Meng Zhang, Zhi-Qiang Liu, Yi-Feng Zhou, Tian-Min Shu, Fu-You Li,* Tao Yi and Chun-Hui Huang*

Distinct color change was found for azo 8-hydroxyquinoline benzoate (2) upon addition of Hg^{2+} or Cu^{2+} in CH_3CN , which allows for detection of Hg^{2+} or Cu^{2+} from other metal ions by the 'naked eye'.





An environmentally friendly and cost effective synthesis of estradiol featuring two novel reagents: Si(0)/KF and PMHS/hexamethyldisiloxane/pTSA

pp 6417-6420

Chongsoo Lim, Gerald N. Evenson, William R. Perrault and Bruce A. Pearlman*

An efficient synthesis of novel spiro[[8H]indeno[2,1-b]-thiophene-8,9'-fluorene] building block for blue light-emitting materials

pp 6421–6424

Ling-Hai Xie, Ting Fu, Xiao-Ya Hou, Chao Tang, Yu-Ran Hua, Rui-Jie Wang, Qu-Li Fan, Bo Peng, Wei Wei and Wei Huang*

We have developed efficient synthetic routes to obtain a novel building block spiro[[8*H*]indeno[2,1-*b*]thiophene-8,9'-fluorene] (SITF) and constructed a blue light-emitting material 2',7'-bis-(9,9'-spirobifluoren-2-yl)spiro[[8*H*]indeno[2,1-*b*]thiophene-8,9'-fluorene] (BSBF–SITF). Light-emitting materials based on SITF with unique regioselective feature will be promising for constructing complicated optoelectrical systems.

Deprotection of N-tosylated indoles and related structures using cesium carbonate

pp 6425-6427

Joginder S. Bajwa,* Guang-Pei Chen, Kapa Prasad, Oljan Repič and Thomas J. Blacklock

High-load, oligomeric phosphonyl dichloride: facile generation via ROM polymerization and application to scavenging amines

pp 6429-6432

Russell H. Herpel, Punitha Vedantham, Daniel L. Flynn* and Paul R. Hanson*



Stereoselective total synthesis of furofuran lignans through dianion aldol condensation

pp 6433-6437

Jae-Chul Jung, Ju-Cheun Kim, Hyung-In Moon and Oee-Sook Park*

Stereoselective total synthesis of (+)-eudesmin, (+)-yangambin, (-)-eudesmin, and (-)-yangambin is described.

Allylindation of 1*H*-indole-3-carboxaldehyde in the presence of azoles—revisited

pp 6439-6443

Giancarlo Cravotto, Giovanni B. Giovenzana, Angelo Maspero, Tullio Pilati, Andrea Penoni and Giovanni Palmisano*



Synthesis of an optically active electron-acceptor tetracyanoanthraquinodimethane (TCAQ) main-chain polyester

pp 6445-6448

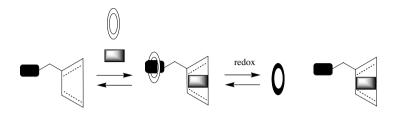
Rafael Gómez, José L. Segura* and Nazario Martín*

The synthesis, electrochemical and preliminar photophysical investigation of the first copolymer containing TCAQ moieties in the main chain is described.

An electrochemically tuneable cyclodextrin-based molecular adapter

pp 6449-6452

Graeme Cooke,* Patrice Woisel, François Delattre, Marc Bria, James F. Garety, Shanika Gunatiliaka Hewage and Gouher Rabani





Synthesis of 1,3-dialkylimidazolium-2-carboxylates by direct carboxylation of 1,3-dialkylimidazolium pp 6453-6456 chlorides with CO_2

Immacolata Tommasi* and Fabiana Sorrentino

$$P_{CO_2} = 50 \text{ bar}$$
 $R^1 - N - R^2 + Na_2CO_3 \xrightarrow{\Delta} R^1 - N - N - R^2 + NaHCO_3$
 $R^1 - N - R^2 + Na_2CO_3 \xrightarrow{\Delta} R^1 - N - N - R^2 + NaHCO_3$
 $R^1 - N - R^2 + NaHCO_3$
 $R^1 - R^2 - R^2 - R^3$
 $R^1 - R^2 - R^3$
 $R^2 - R^3$
 $R^2 - R^3$
 $R^2 - R^3$
 $R^3 -$

Regioselective Suzuki coupling on pyridinium N-(3,5-dibromoheteroar-2-yl)aminides

pp 6457-6460

M. José Reyes, Rafael Castillo, M. Luisa Izquierdo and Julio Alvarez-Builla*

Regioselective cross-coupling reaction over 3', 5'-dibromo pyridinium N-(2'-pirazinyl)aminide **1d** afforded 3'-aryl-5'-bromo-pyridinium N-(2'-pirazinyl)aminides **3** in good yields as intermediates in the synthesis of isomeric 3', 5'-diaryl pyridinium N-(2'-azinyl)aminides **6**.

Methodology for the synthesis of the core EFGH rings of diazonamide A

pp 6461-6464

Philip Magnus* and Rachel Turnbull



Allylic oxidation of cyclohexene over silica immobilized iron tetrasulfophthalocyanine

pp 6465-6468

Lina M. González, Aída L. Villa de P.,* Consuelo Montes de C. and Alexander Sorokin

Syntheses of dipeptides containing (1R,5S)-6,6-dimethyl-3-azabicyclo[3.1.0]hexane-2(S)-carboxylic acid (4), (1R,5S)-spiro[3-azabicyclo[3.1.0]hexane-6,1'-cyclopropane]-2(S)-carboxylic acid (5) and (1S,5R)-6,6-dimethyl-3-azabicyclo[3.1.0]hexane-2(S)-carboxylic acid (6)

pp 6469-6472

Siska Hendrata, Frank Bennett,* Yuhua Huang, Mousumi Sannigrahi, Patrick A. Pinto, Tze-Ming Chan, C. Anderson Evans, Rebecca Osterman, Alexei Buevich and Andrew. T. McPhail*

Syntheses and properties of new photochromic diarylethene derivatives having a pyrazole unit Shouzhi Pu,* Tianshe Yang, Jingkun Xu and Bing Chen

pp 6473-6477

New photochromic diarylethene derivatives having a pyrazole unit were synthesized and their optical and electrochemical properties examined.

Efficient microwave-assisted synthesis of 1-(1*H*-indol-1-yl)-2-phenyl-3-(1*H*-1,2,4-triazol-1-yl)-propan-2-ols as antifungal agents

pp 6479-6483

Nicolas Lebouvier, Francis Giraud, Typhanie Corbin, Young Min Na, Guillaume Le Baut, Pascal Marchand and Marc Le Borgne*

New conazole antifungals, in the series of triazole alcohols 23a-d and 24a-e incorporating an indole moiety substituted at 5-position by halogens, a cyano or 4-methoxyphenyl group, have been synthesized by ring opening of corresponding oxiranes 15 and 16. These dihalogeno intermediates and their congeneers could be prepared in high yields by Corey-Chaykovsky reaction under microwave irradiation.

OTHER CONTENTS

Calendar p I

*Corresponding author

(1) Supplementary data available via ScienceDirect

COVER

We report the synthesis of a cyclodextrin-based molecular adapter that has the propensity to form an electrochemically tuneable ternary complex with the tetracationic cyclophane cyclobis (paraquat-p-phenylene) and ferrocene in non-aqueous and aqueous environments. The ability to form and subsequently disassemble the ternary complex, paves-the-way for the reversible modification of appropriately functionalised biomolecules, synthetic polymers and surfaces. *Tetrahedron Letters* **2006**, *47*, 6449–6452. © 2006 G. Cooke. Published by Elsevier Ltd.



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