

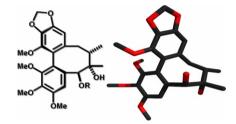
Tetrahedron Letters Vol. 49, No. 21, 2008

Contents

COMMUNICATIONS

Synthesis of the first unnatural schisantherins and their effects in multidrug-resistant cancer cells Rainer Schobert *, Werner Kern, Wolfgang Milius, Tamara Ackermann, Miroslava Zoldakova

pp 3359-3362



One-pot sequential cross-metathesis/hydride reduction: highly stereoselective synthesis of primary (*E*)-allylic pp 3363–3367 alcohols from terminal olefins

Tapas Paul, Gopal Sirasani, Rodrigo B. Andrade *

$$R^{3} = H \text{ or Me; } R^{3} = H \text{ or OMe}$$

$$R^{1}, R^{2} = H \text{ or Me; } R^{3} = H \text{ or OMe}$$

$$R^{1}, R^{2} = H \text{ or Me; } R^{3} = H \text{ or OMe}$$

$$R^{1}, R^{2} = H \text{ or Me; } R^{3} = H \text{ or OMe}$$

$$R^{2} = H \text{ or Me; } R^{3} = H \text{ or OMe}$$

$$R^{3} = H \text{ or OMe}$$

$$R^{2} = H \text{ or Me; } R^{3} = H \text{ or OMe}$$

$$R^{3} = H \text{ or OMe}$$

$$R^{2} = H \text{ or Me; } R^{3} = H \text{ or OMe}$$

$$R^{3} = H \text{ or OMe}$$

Pyridine analogs of (-)-cytisine and varenicline: cholinergic receptor probes

pp 3368-3371

Sebastien Demers, Heather Stevenson, John Candler, Crystal G. Bashore, Eric P. Arnold, Brian T. O'Neill, Jotham W. Coe *

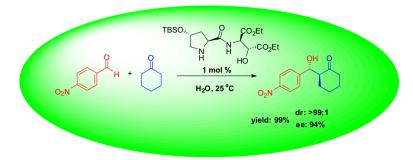
A series of bicyclic pyridine containing alkaloids related to (–)-cytisine and varenicline are described. Synthetic access via regioisomeric metalation of alkoxy- and halo-pyridines gains entry to all four isomeric [3.3.1]-bicyclic targets. Regioselective and sequential oxidative cleavage of dicyclopentadiene generates a related [3.2.1]-bicyclic analog.

Organo-catalyzed highly diastereo- and enantio-selective direct aldol reactions in water

pp 3372-3375

Jun-Feng Zhao, Long He, Jun Jiang, Zhuo Tang, Lin-Feng Cun, Liu-Zhu Gong *

The asymmetric direct aldol reactions proceeded in water in the presence of 1 mol % of organocatalyst to afford products in high yields and excellent stereoselectivities (dr >99:1, ee up to 98%).



Oldhamine A, a novel alkaloid from Daphniphyllum oldhami

pp 3376-3379

Chengjian Tan, Yingtong Di, Yuehu Wang, Ye Wang, Shuzhen Mu, Suo Gao, Yu Zhang, Ningchuan Kong, Hongping He, Jianxin Zhang, Xin Fang, Chunshun Li, Yang Lu, Xiaojiang Hao *

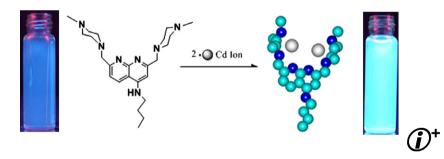


A highly selective Cd²⁺ sensor of naphthyridine: fluorescent enhancement and red-shift by the synergistic action of forming binuclear complex

pp 3380-3384

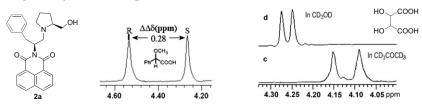
Ying Zhou, Yi Xiao *, Xuhong Qian *

A series of new fluorophore derivatives from 1,8-naphthyridine have been developed. Compound D1 is the first naphthyridine PET sensor that can signal Cd²⁺ selectively with fluorescent enhancement and red-shift. A binuclear metal complex structure has been demonstrated in the D1–Cd²⁺ complex.



Amphiphilic chiral receptor as efficient chiral solvating agent for both lipophilic and hydrophilic carboxylic pp 3385-3390 acids

Zengwei Luo, Cheng Zhong, Xiaojun Wu, Enqin Fu *



Two amphiphilic chiral receptors **2a** and **2b** were designed and synthesized. Both are efficient chiral solvating agents for chiral carboxylic acid. In particular, **2a** is an excellent CSA not only for lipophilic guests, but also for some hydrophilic guests. It is the first CSA for the direct determination of the enantiomeric composition of hydrophilic hydroxylated acid in protic polar solvent.

Yb(OTf)₃ catalyzed condensation reaction of β -naphthol and aldehyde in ionic liquids: a green synthesis of pp 3391–3394 aryl-14*H*-dibenzo[a,j]xanthenes

Weike Su *, Dong Yang, Can Jin, Bo Zhang

A facile, efficient, and green synthesis of aryl-14H-dibenzo[a,j]xanthenes has been developed by onepot condensation of β -naphthol and substituted benzaldehydes in the presence of ytterbium triflates in ionic liquids.

Synthesis of fluorescent probes based on stilbenes and diphenylacetylenes targeting $\beta\text{-amyloid}$ plaques

pp 3395-3399

Ajit K. Parhi, Mei-Ping Kung, Karl Ploessl, Hank F. Kung *



Hydroxide ion as electron source for photochemical Birch-type reduction and photodehalogenation

pp 3400-3404

Yasuharu Yoshimi *, Akihiro Ishise, Hiromu Oda, Yousuke Moriguchi, Hiroki Kanezaki, Yukari Nakaya, Kayoko Katsuno, Tatsuya Itou, Sho Inagaki, Toshio Morita, Minoru Hatanaka *



A new taxane composed of two N-formyl rotamers from Taxus canadensis

pp 3405-3408

Man-Li Zhang, Mei Dong, Xiao-Ning Li, Li-Geng Li, Fançoise Sauriol, Chang-Hong Huo, Qing-Wen Shi *, Yu-Cheng Gu, Hiromasa Kiyota *, Bin Cong *

A novel taxane with an unprecedented N-formylamino side chain was isolated from the Canadian yew.

Enantioselective synthesis of cyclopentyltetrahydrofuran (Cp-THF), an important high-affinity P2-ligand for pp 3409–3412 HIV-1 protease inhibitors

Arun K. Ghosh *, Jun Takayama

$$\bigcap_{O}^{H} \longrightarrow \bigcap_{O}^{H} \bigcap_{O}^{OH}$$

An enantioselective route to (3aS, 5R, 6aR)-5-hydroxy-hexahydrocyclopenta[b]furan is described.

Chemical and enzymatic synthesis of neoglycolipids in the presence of cyclodextrins

pp 3413-3418

Izuru Nagashima, Hiroki Shimizu *, Takahiko Matsushita, Shin-Ichiro Nishimura *

The efficiency of cyclodextrins, α -CD, β -CD and γ -CD, for glycosylation using glycosyltransferase has been reported.

Palladium mediated bis- and tris-biaryl Heck coupling for the synthesis of heterocycles

X= I or Br

pp 3419-3422

K. C. Majumdar *, S. Chakravorty, N. De

Phosphine-free Pd-salen complexes as efficient and inexpensive catalysts for Heck and Suzuki reactions under aerobic conditions

pp 3423-3429

Sanjay R. Borhade, Suresh B. Waghmode *

A one-pot efficient and fast Hiyama coupling using palladium nanoparticles in water under fluoride-free conditions

pp 3430-3432

Brindaban C. Ranu *, Raju Dey, Kalicharan Chattopadhyay

$$R^1$$
 = OMe, CHO, COMe, F etc. R^2 = H, Me; R = Me, Et $X = I$, Br

A stereocontrolled approach for the synthesis of 2,5-diaryl-3,4-disubstituted furano lignans through a highly diastereoselective aldol condensation of an ester enolate with an α -chiral center: total syntheses of (–)-talaumidin and (–)-virgatusin

Kiran Matcha, Subrata Ghosh *

$$R^1$$
 R^2
 R^1
 R^2
 R^3
 R^3

$$R^{1}$$
, $R^{2} = -(CH_{2})_{5}$ -; $R^{3} = Ar^{1}/Ar^{3}$; $Ar^{1} = (4\text{-OH})(3\text{-OMe})C_{6}H_{3}$;
 $Ar^{2} = 3,4\text{-}(OCH_{2}O)C_{6}H_{3}$; $Ar^{3} = 3,4\text{-}(OMe)_{2}C_{6}H_{3}$



Facile and efficient synthesis of polyfunctionalized benzofurans: three-component coupling reactions from an alkynylsilane, an o-hydroxybenzaldehyde derivative, and a secondary amine by a Cu(I)-Cu(II) cooperative catalytic system

Norio Sakai *, Naoki Uchida, Takeo Konakahara

Solvent-free synthesis of 1-(p-toluenesulfonyloxy)-1,2-benziodoxol-3(1H)-one from Dess-Martin periodinane pp 3441–3443 and its synthetic utility for α -tosyloxylation of ketones

Nandkishor N. Karade *, Girdharilal B. Tiwari, Sandeep V. Shinde, Sumeet V. Gampawar, Jeevan M. Kondre

$$R^1$$
 + CH_3CN R^1 CH_3CN R^1 CTS CH_3CN R^1 CTS

The solvent-free synthesis of 1-(p-toluenesulfonyloxy)-1,2-benziodoxol-3(1H)-one is reported from Dess-Martin periodinane and p-toluenesulfonic acid monohydrate using a grinding technique and is subsequently utilized for the α -tosyloxylation of a range of enolisable ketones.



Photochemistry of 5-nitro-1,2-benzisothiazole derivatives: effects of substituents, solvents and excitation wavelength

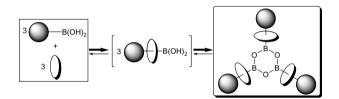
pp 3444-3448

Hiroharu Tanikawa, Kazuhiro Ishii, Shun Kubota, Shiki Yagai, Akihide Kitamura, Takashi Karatsu *

Dynamic covalent chemistry of a boronylammonium ion and a crown ether: formation of a C_3 -symmetric [4]rotaxane

pp 3449-3452

Yuji Tokunaga *, Takashi Ito, Hidetoshi Sugawara, Ryuji Nakata



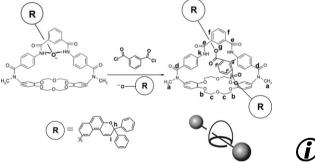


Synthesis of new [2]rotaxane including a macrocyclic receptor and a photochromic unit

pp 3453-3457

Ekaterina A. Shilova *, Valery P. Perevalov, Vasily V. Suslov, Corinne Moustrou *

The novel photochromic [2]rotaxane based on chromene molecule introduced into crowncontaining macrocyclic receptor was synthesized.



Regioselective Pd-catalyzed indolization of 2-bromoanilines with internal alkynes using phosphine-free ligands

pp 3458-3462

Xin Cui, Juan Li, Yao Fu, Lei Liu *, Qing-Xiang Guo *



A novel rapid sulfoxidation of sulfides with cyclohexylidenebishydroperoxide

pp 3463-3465

J. Jon Paul Selvam, V. Suresh, K. Rajesh, D. Chanti Babu, N. Suryakiran, Y. Venkateswarlu *

Imidazolium-based polymer supported gadolinium triflate as a heterogeneous recyclable Lewis acid catalyst pp 3466-3470 for Michael additions

Ramesh Alleti, Woon Su Oh, Meher Perambuduru, C. V. Ramana, V. Prakash Reddy *

Highly efficient and economic synthesis of new substituted amino-bispyridyl derivatives via copper and palladium catalysis

pp 3471-3474

Sylvain Gaillard, Mohammed Kamal Elmkaddem, Cédric Fischmeister *, Christophe M. Thomas *, Jean-Luc Renaud *

$$Br$$
 R^{1} R^{1} R^{2} R^{2}

Central-to-axial chirality transfer and induced circular dichroism in 6,7-dihydro-5H-dibenz[c,e]azepine derivatives of α - and β -amino esters

pp 3475-3479

Laurence Dutot, Karen Wright *, Michel Wakselman, Jean-Paul Mazaleyrat, Cristina Peggion, Marta De Zotti, Fernando Formaggio, Claudio Toniolo *

A one-pot synthesis of a branched tertiary phosphine oxide from red phosphorus and 1-(tert-butyl)-4-vinylbenzene in KOH-DMSO: an unusually facile addition of P-centered nucleophiles to a weakly electrophilic double bond

pp 3480-3483

Boris A. Trofimov *, Svetlana F. Malysheva, Nina K. Gusarova, Vladimir A. Kuimov, Nataliya A. Belogorlova, Boris G. Sukhov

Dramatic effect of PSE clamping on the behaviour of p-glucal under Ferrier I conditions

pp 3484-3488

Anthony Fernandes, Maxime Dell'Olmo, Arnaud Tatibouët * , Anne Imberty, Christian Philouze, Patrick Rollin *

$$PSCH_{2} \xrightarrow{O'} O \xrightarrow{O} O \xrightarrow{TMSOTf, Nu-H} PSCH_{2} \xrightarrow{O'} O \xrightarrow{O} O \xrightarrow{NU} O \xrightarrow{NU$$

Synthesis of 1,1-disubstituted tetrahydro-β-carbolines from 2-methyleneaziridines

pp 3489-3491

Peter M. Mumford, Jason J. Shiers, Gary J. Tarver, Jerome F. Hayes, Michael Shipman *

BnOH,
BF₃· OEt₂, CH₂Cl₂,

$$-30$$
 °C \rightarrow rt, 15 h
NH
H
OBn



(Z)-Selective Wittig and Corey-Chaykovsky reactions of propargyl ylides using trialkylgallium bases Yoshio Nishimura, Takao Shiraishi, Masahiko Yamaguchi *

pp 3492-3495



An approach to the synthesis of tricholomalide A: an effective means for achieving homo-Robinson annulation

pp 3496-3499

Sun-Joon Min, Samuel J. Danishefsky *



Synthesis of phosphatidylcholine analogues derived from glyceric acid: a new class of biologically active phospholipid compounds

pp 3500-3503

Renato Rosseto, Celize M. Tcacenco, Radha Ranganathan, Joseph Hajdu *

()+

Total synthesis of (-)-xanthatin

pp 3504-3506

Hiromasa Yokoe, Masahiro Yoshida, Kozo Shishido *

P(i-BuNCH₂CH₂)₃N: an efficient promoter for the microwave synthesis of diaryl ethers

pp 3507-3511

Steven M. Raders, John G. Verkade *

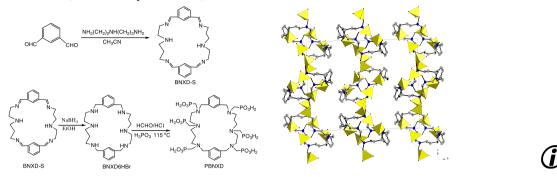
The utility of a proazaphosphatrane catalyst for the formation of diaryl ethers under microwave conditions is demonstrated.



Structures of aza-macrocyclic ligands with polyphosphonated dangling groups

pp 3512-3515

Deyuan Kong *, Jennifer McBee, LeAnthony Holliness, Abraham Clearfield



Highly regioselective hydroformylation of enamides with phosphite ligands

pp 3516-3519

Ourida Saidi, Jiwu Ruan, Daniele Vinci, Xiaofeng Wu, Jianliang Xiao *

R =
$$\begin{pmatrix} R' \\ Rh-phosphite \end{pmatrix}$$
 $\begin{pmatrix} R' \\ Rh-phosphite \end{pmatrix}$ $\begin{pmatrix} R' \\ R \end{pmatrix}$ $\begin{pmatrix} R' \\ R' \end{pmatrix}$ $\begin{pmatrix} R'$

Monodentate phosphites were shown to be effective ligands in rhodium-catalyzed hydroformylation of enamides. Whilst all the ligands favoured branched aldehydes, electron-deficient or sterically bulky examples afforded faster reaction rates.

Biginelli-like reaction with dialkyl acetone-1,3-dicarboxylates: a remarkable case of steric control Jan Světlík *, Lucia Veizerová, Viktor Kettmann

pp 3520-3523

,

Dicarotenoid esters of bivalent acids

pp 3524-3526

Magdolna Háda, Veronika Nagy, Anikó Takátsy, József Deli, Attila Agócs *

R= Retinol, β-Cryptoxanthin, 4'-OH-echinenone

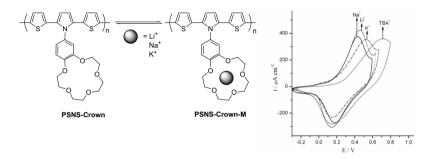
For the evaluation of the synthesis of dendrimeric esters from carotenoids the C_{20} apocarotenoid retinol was chosen for model studies, being a commercially available hydroxy carotenoid. Dimers were synthesized from retinol with dicarboxyl cores and from retinol succinate with other hydroxy carotenoids.

Hydrogen bond catalyzed chemoselective N-tert-butoxycarbonylation of amines

pp 3527-3529

Samad Khaksar *, Akbar Heydari, Mahmood Tajbakhsh, Seyed Mohammad Vahdat

An electroactive polymeric material and its voltammetric response towards alkali metal cations in neat water pp 3530–3533 Fatih Algı *, Atilla Cihaner





*Corresponding author

** Supplementary data available via ScienceDirect

Available online at www.sciencedirect.com



Abstracted/indexed in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts, Chemical Engineering and Biotechnology Abstracts, Current Biotechnology Abstracts, Current Contents: Life Sciences, Current Contents: Physical, Chemical and Earth Sciences, Current Contents Search, Derwent Drug File, Ei Compendex, EMBASE/Excerpta Medica, Medline, PASCAL, Research Alert, Science Citation Index, SciSearch. Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®

