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COMMUNICATIONS

A convenient synthesis of medium-sized lactams through RCM reaction of oxyoxazolidinones pp Akio Kamimura,* Keiichi Tanaka, Takahiro Hayashi and Yoji Omata

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One-pot synthesis of 1,2,4-oxadiazoles from carboxylic acid esters and amidoximes using potassium pp 3629–3631 carbonate

Kande K. D. Amarasinghe,* Matthew B. Maier, Anil Srivastava and Jeffrey L. Gray

$$R^{1} \xrightarrow{O} R + R^{2} \xrightarrow{NH_{2}} \frac{K_{2}CO_{3}, \text{ toluene}}{\text{reflux, 6-12 h}} \xrightarrow{O^{-N}} R^{2}$$

$$R = Me, Et$$

First example of direct reductive amination of aldehydes with primary and secondary amines catalyzed by water-soluble transition metal catalysts

André Robichaud and Abdelaziz Nait Ajjou*



An unprecedented efficient and highly selective direct reductive amination of aldehydes with primary and secondary amines in water using gaseous hydrogen and water-soluble catalysts is developed. The catalytic system formed in situ from $Pd(PhCN)_2Cl_2$ and 2,2'-biquinoline-4,4'-dicarboxylic acid dipotassium salt (BQC) allows full conversion of aldehydes and the formation of desired alkylated amines with excellent yields and selectivities. The catalytic system is stable and can be recycled and reused three times without loss of activity.

Nitration reactions of astaxanthin and $\beta\mbox{-}car\mbox{otene}$ by peroxynitrite

Ryo Yoshioka, Tsutomu Hayakawa, Kumiko Ishizuka, Aditya Kulkarni, Yukimasa Terada, Takashi Maoka and Hideo Etoh*



New synthesis of cis-3,4-diaryl-1-tosylpyrrolidines

Meng-Yang Chang,* Chun-Li Pai and Chun-Yu Lin



Easy α - to β -migration of an enol moiety on a pyrrole ring

Boris A. Trofimov,* Ol'ga V. Petrova, Lyubov' N. Sobenina, Igor' A. Ushakov, Al'bina I. Mikhaleva, Yurii Yu. Rusakov and Leonid B. Krivdin



Palladium mediated cycloisomerization of sugar alkynols: synthesis of cyclic enol-ethers and spiroketals

C. V. Ramana,* Rosy Mallik, Rajesh G. Gonnade and Mukund K. Gurjar



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Geetanjali Agnihotri and Anup Kumar Misra*



Synthesis of diols using the hypervalent iodine(III) reagent, phenyliodine(III) bis(trifluoroacetate)pp 3659–3663Murat Çelik,* Cemalettin Alp, Betül Coşkun, M. Serdar Gültekin and Metin Balci*pp 3659–3663



1,2- and 1,3-Bis(trifluoroacetoxy) alcohols are easily obtained from the one-pot reaction of alkenes with phenyliodine(III) bis(trifluoroacetate) (PIFA) in the absence of any additive or catalyst.

4 steps

> 50% yield > 98% d.s.

OTMS

Furanyl spiroketals: thermodynamic control of remote asymmetry Shane Cahill and Matthew O'Brien*

Improved enantioselective synthesis of natural striatenic acid and its methyl ester Yoann Aubin, Gérard Audran* and Honoré Monti*



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Direct ring functionalisation of 1,4,7-trimethyl-1,4,7-triazacyclononane and its application in the preparation of functional [L₂Mn₂O₃]-type complexes

pp 3673-3675

Jean H. Koek* and Erik W. J. M. Kohlen



Synthesis of tritium labeled KRN7000

Martijn D. P. Risseeuw, Celia R. Berkers, Hidde L. Ploegh and Huib Ovaa*



The synthesis of multiple tritiated KRN7000 (a-galactosyl ceramide) is described via the construction of an unsaturated fatty acid of the appropriate length.

1-Ethyl-1H-3-nitrobenzopyrano[4,3,2-cd]isoindole: a novel heterocyclic ring system bearing an unusually pp 3681–3684 labile deuterium-exchangeable aromatic proton

Christiana Hadjipavlou, Ioannis K. Kostakis, Nicole Pouli,* Panagiotis Marakos and Emmanuel Mikros*



Feroniellins A–C, novel cytotoxic furanocoumarins with highly oxygenated C_{10} moieties from Feroniella lucida

pp 3685-3688

Preecha Phuwapraisirisan,* Serm Surapinit, Sitthidesch Sombund, Pongpun Siripong and Santi Tip-pyang*

Three new isomeric coumarins bearing highly oxygenated C₁₀ moieties were isolated from Feroniella lucida.



pp 3677-3679

An acenaphthopyrrolone-dipicolylamine derivative as a selective and sensitive chemosensor for group IIB cations

Ali Coskun, M. Deniz Yilmaz and Engin U. Akkaya*



Al'bina I. Mikhaleva, Alexey B. Zaitsev, Andrey V. Ivanov, Elena Yu. Schmidt, Alexander M. Vasil'tsov and Boris A. Trofimov*



Daniela Arosio, Matteo Bertoli, Leonardo Manzoni* and Carlo Scolastico*



ò.

ŃHCbz

The same sequence was carried out using (2R,3R)-3-hydroxyleucine leading to the epimeric (2S,3S)-3-chloroleucine.

Bu _____► Na-Ascorbate, Cu(OAc)₂, tBuOH/H₂O 1:1

NHCbz iii) LiCl, THF rfx, 90 h $R \stackrel{i}{=} S CO_2 H$ $iv) H_2, Pd-C,$ EtOH $\begin{array}{c} & \underset{OH}{\overset{\text{NH}_2}{\underset{OH}{\overset{\text{i}}{\underset{}}}}} \xrightarrow{\text{i}) \text{ Cbz-Suc}} \\ & \underset{OH}{\overset{\text{i}) \text{ HBTU}}{\overset{\text{i}) \text{ HBTU}}} \xrightarrow{\text{o}-} \end{array}$ NH₂ ℃O2H Ēι

pp 3697-3700

CO₂tBu

ò

ŃHCbz



POCl₃, DMF C₂H₄Cl₂

→ r.t.



pp 3689-3691

pp 3693-3696



D-Cleu (1)

A concise synthesis of (+)-pancratistatin using pinitol as a chiral building block

Min Li,* Anmei Wu and Peijie Zhou



A concise approach toward (+)-Pancratistatin has been achieved via 12 steps from pinitol. An ultrasound assisted arylcerium induced ring opening of a cyclic sulfate was employed as the key step.

Photochromic properties of thienylpyrrole azo dyes in solution Paulo J. Coelho,* Luis M. Carvalho, A. Maurício C. Fonseca and M. Manuela M. Raposo pp 3711-3714

pp 3707-3710



Synthesis of fullerene-substituted oligo(phenylenebutadiyndiyl)

pp 3715-3718

Juan Luis Delgado de la Cruz, Uwe Hahn and Jean-François Nierengarten*



An unprecedented highly efficient solvent-free oxidation of alkynes to α,β -acetylenic ketones with *tert*-butyl hydroperoxide catalyzed by water-soluble copper complex Abdelaziz Nait Ajjou^{*} and Gabriel Ferguson

pp 3719-3722

 $R_{1} \longrightarrow \begin{array}{c} CuCl_{2}/BQC \\ \hline t-BuOOH, H_{2}O, Na_{2}CO_{3} \\ \hline TBAC, RT \end{array}$ $R_{1} \longrightarrow \begin{array}{c} O \\ R_{2} \\ \hline R_{2} \hline \hline$

The water-soluble complex generated in situ from CuCl₂ and 2,2'-biquinoline-4,4'-dicarboxylic acid dipotassium salt (BQC) has been revealed as a highly efficient catalyst for the selective α -oxidation of internal alkynes to the corresponding α , β -acetylenic ketones, with aqueous *tert*-butyl hydroperoxide, under mild conditions. For the first time, full conversions of alkynes were reached with excellent selectivities, and propargylic *tert*-butylperoxy ethers were observed and suggested as the reaction intermediates. In the case of terminal alkynes, the oxidations are sluggish and low yields ranging from 32% to 40% were obtained.

'Bis-ornithine' (2,2-bis(aminopropyl)glycine): a new tetravalent template for assembling different functional peptides

Baptiste Aussedat, Gérard Chassaing,* Solange Lavielle and Fabienne Burlina



Development of nonproprietary phosphine ligands for the Pd-catalyzed amination reaction Robert A. Singer,* Michaël Doré, Janice E. Sieser and Martin A. Berliner

Pd, ligand

We have prepared a new family of pyrazole and bi-pyrazole phosphine ligands that perform efficiently in the Pd-catalyzed amination reaction. Of the ligands screened, ligand 1 is the most compatible for couplings involving both primary and secondary amines with typical yields of 84-99%.

NR¹R²

R1

up to 88% ee

Enantioselective hydrogenation of diaryl-substituted α , β -unsaturated nitriles pp 3733-3736 Tobias C. Wabnitz, Simona Rizzo, Carsten Götte, Armin Buschauer, Tiziana Benincori* and Oliver Reiser*

Diaryl-substituted α,β -unsaturated nitriles can be hydrogenated with Ru(II)-diphosphine catalysts in up to 88% ee. Electron-rich

 R^{1} R^{3} [Ru(II)-diphosphine], H₂

diphosphine ligands such as N-Me-2-BINP give the best results. Mechanistic investigations show that the presence of a secondary coordination site such as a pyridyl group promotes conversion. The products are precursors for the synthesis of chiral arpromidines. On/off fluorescence switch of a calix[4]arene by metal ion exchange

Rⁱ = aryl, heteroaryl, H

Su Ho Kim, Jung Kyu Choi, Sung Kuk Kim, Wonbo Sim and Jong Seung Kim*



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A synthesis of the bicyclo[3.3.0]octene core of geodin A Andrew J. Phillips,* Amy C. Hart and James A. Henderson

pp 3743-3745



A one-pot method for the synthesis of 2-aminobenzimidazoles and related heterocycles Victor J. Cee* and Nicholas S. Downing

pp 3747-3750



A rapid and efficient one-pot method for the synthesis of 2-aminobenzimidazoles and related heterocycles is described. The reaction is mediated by a polymer-supported carbodiimide, which simplifies product isolation. The scope and limitations of this method are described.

New organic activators for the enantioselective reduction of aromatic imines with trichlorosilane Osamu Onomura, Yoshimi Kouchi, Fumiaki Iwasaki and Yoshihiro Matsumura*



Cl₃SiH (1.5 eq) **3e** (0.1 eq) in CH₂Cl₂ HC 80%ee 3e

The first total synthesis of lamellarin α 20-sulfate, a selective inhibitor of HIV-1 integrase Tomohiro Yamaguchi, Tsutomu Fukuda, Fumito Ishibashi and Masatomo Iwao*

pp 3755-3757



Unusual sulfanylation through ring transformation of arene-tethered 2*H*-pyran-2-ones by in situ built pp 3759–3762 Michael adduct

Diptesh Sil, Ramendra Pratap, Rishi Kumar, P. R. Maulik and Vishnu Ji Ram*



The electrochemically tuneable hydrogen bonding interactions between a phenanthrenequinonefunctionalized self-assembled monolayer and a phenyl-urea terminated dendrimer

pp 3763–3766

Graeme Cooke,* Julien Couet, James F. Garety, Chang-Qi Ma, Suhil Mabruk, Gouher Rabani, Vincent M. Rotello, Vladimir Sindelar and Patrice Woisel

Highly regioselective Friedel–Crafts alkylation of indoles with α,β-unsaturated N-acylbenzotriazolespp 3767–3771Xuefei Zou, Xiaoxia Wang,* Cungui Cheng, Lichun Kong and Hui MaoPhi Mao



The Friedel–Crafts alkylation rather than acylation of indoles was realized with α , β -unsaturated *N*-acylbenzotriazoles catalyzed by samarium(III) iodide under reflux in dry THF. The reaction was highly regioselective, and a series of new 3-substituted indole derivatives were obtained and could be further transformed into various indole derivatives due to the presence of active acylbenzotriazole moiety.

Formal synthesis of fostriecin by a carbohydrate-based approach J. S. Yadav,* I. Prathap and Bulli Padmaja Tadi

A formal synthesis of fostriecin, starting from D-glucose involves chelation-controlled addition, Wittig rearrangement, ring closing metathesis and iodomethylenation.



Reaction of tertiary cyclopropyl silyl ethers with diethylaminosulfur trifluoride. Part 2: The Friedel–Crafts allylation and cyclopropylation of electron-rich aromatic compounds Masayuki Kirihara,* Takuya Noguchi, Hiroko Kakuda, Tatsuhiro Akimoto, Akihiro Shimajiri, Minori Morishita, Akihiko Hatano and Yoshiro Hirai*

pp 3777-3780

pp 3781-3783

Towards the total synthesis of clavosolide A

Pedduri Yakambram,* Vedavati G. Puranik and Mukund K. Gurjar*

D-Glucose $\xrightarrow{\text{Steps}}$ $\xrightarrow{}_{u_{\mu}}$ $\xrightarrow{O}_{O_{0}}$ $\xrightarrow{O}_{O_{1}}$ $\xrightarrow{O}_{O_{1}}$ $\xrightarrow{O}_{O_{2}}$ $\xrightarrow{O}_{O_{1}}$ \xrightarrow{O}_{O_{1}

New carboxy-functionalized terpyridines as precursors for zwitterionic ruthenium complexes for polymer-based solar cells

Virginie Duprez and Frederik C. Krebs*



Synthetic route to zwitterionic complexes.

Stereoselective synthesis and cyclisation of the acyclic precursor to auripyrone A and B Michael V. Perkins,* Rebecca A. Sampson, John Joannou and Max R. Taylor

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

pp 3785-3789

pp 3791-3795

The OsO₄-mediated oxidative cleavage of olefins catalyzed by alternative osmium sources Daniel C. Whitehead, Benjamin R. Travis and Babak Borhan^{*}

pp 3797-3800



Osmium Sources: OsCl₃, K₂OsO₄ [∎]2H₂O, PB-OsO₄, OsEnCatTM

The OsO_4 -mediated oxidative cleavage of olefins is compatible with alternative, easier-to-handle osmium sources. Four different sources of osmium were employed with favorable results.

*Corresponding author (*i*)⁺ Supplementary data available via ScienceDirect

Full text of this journal is available, on-line from ScienceDirect. Visit www.sciencedirect.com for more information.

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