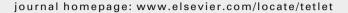


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Tetrahedron Letters





Tetrahedron Letters Vol. 51, No. 20, 2010

Contents

COMMUNICATIONS

Synthesis of conformationally restricted sulfonamides via radical cyclisation

D. Biswas, L. Samp, A. K. Ganguly*

pp 2681-2684

Flexible palladium-catalysed amidation reactions for the synthesis of complex aryl amides

pp 2685-2689

Christopher Barfoot, Gerald Brooks, Pamela Brown, Steven Dabbs, David T. Davies, Ilaria Giordano, Alan Hennessy*, Graham Jones, Roger Markwell, Timothy Miles, Neil Pearson, Christian A. Smethurst

This Letter describes the synthesis of complex aryl amides using palladium-catalysed amidation reactions. Use of these conditions allowed for the coupling of a variety of aryl halides and triflates with a host of primary amides in high yields.

Iridium-catalyzed C-H activation/borylation/oxidation for the preparation of bis-protected phloroglucinol derivatives

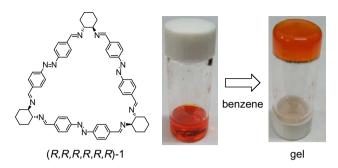
pp 2690-2692

Laura J. Marshall, Karl M. Cable, Nigel P. Botting*

Novel chiral Schiff base macrocycles containing azobenzene chromophore: gelation and guest inclusion

pp 2693-2696

Koichi Tanaka*, Shingo Fukuoka, Hiroki Miyanishi, Hiroki Takahashi



Thermodynamic equilibration in Pd(0)-catalyzed interconversion of highly constrained [2.1.2] bicyclic lactones: its mechanistic investigation

pp 2697-2699

Young Taek Han, Seung-Mann Paek, Sujin Lee, Jong-Wha Jung, Jae-Kyung Jung, Seung-Yong Seo, Jeeyeon Lee, Young-Ger Suh*

$$\begin{array}{c} O \\ O \\ O \\ H \end{array} \begin{array}{c} \pi - \sigma - \pi \text{ isomerization} \\ Pd(dppe)_2 \\ CH_2Cl_2, 40 \text{ °C} \end{array} \begin{array}{c} O \\ O \\ H \end{array} \begin{array}{c} R \\ O \\ H \end{array} \begin{array}{c} R \\ O \\ H \end{array} \begin{array}{c} R \\ O \\ H \end{array}$$

Ceric ammonium nitrate (CAN) catalyzed synthesis of N-substituted decahydroacridine-1,8-diones in PEG

pp 2700-2703

Mazaahir Kidwai*, Divya Bhatnagar

Polyethylene glycol (PEG) was found to be an inexpensive non-toxic and effective medium for the one-pot synthesis of N-substituted decahydroacridine-1,8-diones in the presence of ceric ammonium nitrate (CAN) as the catalyst in high yields. Also, the solvent system can be recovered and reused; making this protocol economically and potentially viable.

A new and convenient approach to heterotetracyclic benzoxazocines through addition of 1,3-dicarbonyl compounds to quinolinium salts

X = Br, I

pp 2704-2707

Firouz Matloubi Moghaddam*, Zohreh Mirjafary, Hamdollah Saeidian, Salman Taheri, Mohammad Reza Khodabakhshi

$$R = Me, Et, Bn, allyl, propargyl,$$
 $P = H, Me$
 $R = H, Me$

Organocatalytic diastereoselective dibromination of alkenes

pp 2708-2712

Mingzhao Zhu, Shuangzheng Lin, Gui-Ling Zhao*, Junliang Sun, Armando Córdova*

R¹ R³ NBS (2.2 equiv), succinimide (20 mol%)

pyrrolidine, CHCl₃, 60 °C R² Br
(20 mol%)

R¹ = Ph,
$$\rho$$
-BrC₆H₄, Naphthyl, Me, Et, n -Bu

R² = Me, H

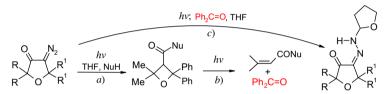
R³ = Ph, CHO, Me, H

R¹ = R³ = (CH₂)₄, R² = H

Surprising secondary photochemical reactions observed on conventional photolysis of diazotetrahydrofuranones

pp 2713-2716

Valerij A. Nikolaev*, Olesja S. Galkina, Jochim Sieler, Ludmila L. Rodina



hv: > 210 nm; R, R¹ = Me, Ph or Ph, Me; NuH = H₂O, MeOH, Me₂NH a) Wolff rearrangement; b) reverse Paterno-Büchi reaction; c) sensitized photolysis

New aspects of the Hunsdiecker-Barton halodecarboxylation—syntheses of phospha-shikimic acid and derivatives

pp 2717-2719

Benoit Carbain, Peter B. Hitchcock, Hansjörg Streicher*

'Phospha'-shikimic acid 'Phospha'-5-dehydroshikimic acid

We report an efficient synthetic approach to phospha-isosteres of important intermediates of the shikimic acid pathway by the application of the Hunsdiecker–Barton halodecarboxylation to cyclohexenylcarboxylic acids. As examples, phospha-shikimic acid, its 3-dehydro derivative and the respective monomethyl esters were synthesized.



Screening of polymeric supports and enzymes for the development of an endo enzyme cleavable linker

pp 2720-2723

Ana Chiva, David E. Williams, Alethea B. Tabor, Helen C. Hailes*



Cost efficient synthesis of amides from oximes with indium or zinc catalysts

C. Liana Allen, Céline Burel, Jonathan M. J. Williams*

pp 2724-2726

Simple indium and zinc salts are shown to be effective alternatives to precious metals for the rearrangement of oximes into amides.



pp 2727-2729

1,2-Dihydro-2-thioxo-4H-3,1-benzothiazin-4-one: formation from carbon disulfide and isatoic anhydride

Philipp A. Ottersbach, Hans-Georg Häcker, Paul W. Elsinghorst, Gregor Schnakenburg, Michael Gütschow*

$$CS_2, Et_3N$$
1,4-dioxane, r.t., 120 h



Synthesis of imines from nitrobenzene and TiO_2 particles suspended in alcohols via semiconductor photocatalysis type B

pp 2730-2733

Omar Rios-Bernÿ, Sergio O. Flores, Iván Córdova, Miguel A. Valenzuela*

$$+ R - OH \frac{hv > E_{hg}}{TiO_2, N_2} \qquad NH_2$$

$$R = C4 - C5$$

$$NH_2 + NH_2$$

Different imines have been prepared through a semiconductor photocatalysis type B in which the reduction product coming from nitrobenzene and the oxidation product of an alcohol are linked.



Rumphellclovane A, a novel clovane-related sesquiterpenoid from the gorgonian coral Rumphella antipathies

Hsu-Ming Chung, Yung-Husan Chen, Tsong-Long Hwang, Li-Fan Chuang, Wei-Hsien Wang*, Ping-Jyun Sung*

pp 2734-2736



Rumphella antipathies

Rumphellclovane A (1)

2β-Hydroxyclovan-9-one (2)

Synthesis of trifunctional thioureas bearing 1,5-disubstituted triazole tether by Ru-catalyzed Huisgen cycloaddition

pp 2737-2740

Kiyosei Takasu*, Takumi Azuma, Yoshiji Takemoto*

$$F_{3}C$$

$$F$$

Synthesis of trifunctional thiourea catalysts tethered with a variety of functional group is described. 1,5-Triazole tether in the catalysts was constructed by ruthenium-catalyzed Huisgen cycloaddition. We demonstrate the utility of the synthetic thioureas as an asymmetric catalyst for Michal addition of nitrostyrene with cyclohexanone.

Design and synthesis of novel spirocyclopropyl cyclohexane-1,3-diones and -1,3,5-triones for their incorporation into potent HPPD inhibitors

pp 2741-2744

Renaud Beaudegnies*, Alain De Mesmaeker, Aurélie Mallinger, Myriam Baalouch, André Goetz

The combination of $TsNBr_2/TsNH_2$ as the nitrogen/halo source for the aminobromination of β -methyl- β -nitrostyrenes catalyzed by $Mn(OAc)_2$

pp 2745-2747

Sanjun Zhi, Guanghui An, Hao Sun, Jianlin Han*, Guigen Li*, Yi Pan*

The combination of $TsNBr_2/TsNH_2$ was found to be an efficient nitrogen/halo source for the aminohalogenation of β -methyl- β -nitrostyrenes resulting in vicinal bromoamino nitroalkanes.

$K_2PdCl_4 \ catalyzed \ efficient \ multicomponent \ synthesis \ of \ \alpha\text{-aminonitriles} \ in \ aqueous \ media$

pp 2748-2750

Bikash Karmakar, Julie Banerji*

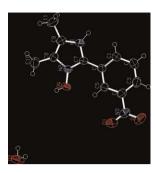
O H H H H H Me₃SiCN
$$\frac{K_2PdCl_4}{Water, RT}$$
 R CN

A green method has been adopted for the Strecker reaction to synthesize α -aminonitriles in the presence of K_2PdCl_4 in water with excellent yield.

Imidazole derivatives as the organic precursor of ZnO nano particle

pp 2751-2753

Arun Kumar Padhy*, Bolin Chetia, Sasmita Mishra, Anita Pati, Parameswar Krishnan Iyer



Expedient route to CDE ring system of schintrilactones through tandem ROM-RCM of a norbornene derivative

pp 2754-2757

Kiran Matcha, Soumitra Maity, Chanchal K. Malik, Subrata Ghosh*

A concise synthesis of a highly functionalized tricyclic ring system representing the CDE core of nortriterpenoid schintrilactones A and B is described using a tandem ROM–RCM of a norbornene derivative.



FeCl₃/PPh₃-catalyzed Sonogashira coupling reaction of aryl iodides with terminal alkynes

pp 2758-2761

Dinesh N. Sawant, Pawan J. Tambade, Yogesh S. Wagh, Bhalchandra M. Bhanage*

Conditions for a FeCl₃/PPh₃-catalyzed and palladium-, copper-, amine free-Sonogashira coupling reaction of aryl halides with terminal alkynes are reported.



Determination of the absolute configuration of marine oxylipin topsentolide A_1 by the synthesis of the enantiomer of the natural product

pp 2762-2764

Munetaka Kobayashi, Ken Ishigami, Hidenori Watanabe*

Determination of the absolute configuration of nodulisporacid A by the concise synthesis of four stereoisomers via three-component reaction and one-pot construction of the framework

pp 2765-2767

Tatsunobu Sumiya, Ken Ishigami, Hidenori Watanabe*

The first total synthesis of potent human chymase inhibitor SPF32629B via regioselective bromination and O-acylation strategy

pp 2768-2770

Srinivasa Rao Vegi, Shanthaveerappa K. Boovanahalli*, Balaram Patro*, K. Mukkanti

Synthetic studies on azadirachtin: stereoselective construction of the ABCE ring system

pp 2771-2773

Daisuke Nakagawa, Masaaki Miyashita, Keiji Tanino*

Synthesis of 4-allylquinazolines from N-(2-cyanoaryl)amides via the In-mediated allylation of nitrile and dehydrative cyclization cascade

pp 2774-2777

Sung Hwan Kim, Se Hee Kim, Taek Hyeon Kim, Jae Nyoung Kim*

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

OTHER CONTENT

Announcement p 2778

*Corresponding author

(1)+ Supplementary data available via ScienceDirect

COVER

A novel chiral Schiff base macrocycle having an azobenzene chromophore and its reduced form have been synthesized. The former formed photoresponsive benzene gel, while the latter included several aromatic guest molecules inside the host cavity. Tetrahedron Letters 2010, 51, 2693-2696.

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