

### Tetrahedron Letters Vol. 49, No. 5, 2008

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Synthesis of enol ethers from lactones using modified Julia olefination reagents: application to the preparation pp 747–749 of tri- and tetrasubstituted exoglycals

Benjamin Bourdon, Matthieu Corbet, Patrice Fontaine, Peter G. Goekjian, David Gueyrard \*



A Julia olefination approach to the synthesis of functionalized enol ethers and their transformation into pp 750–754 carbohydrate-derived spiroketals

Matthieu Corbet, Benjamin Bourdon, David Gueyrard \*, Peter G. Goekjian \*



# Highly enantioselective Rh-catalyzed hydrogenations with heterocombinations of pentafluorobenzyl- and pp 755–759 methoxybenzyl-derived binaphthyl phosphites

Benita Lynikaite, Ján Cvengroš, Umberto Piarulli \*, Cesare Gennari \*



## Pseudo-domino palladium-catalyzed allylic alkylation/Mizoroki–Heck coupling reaction: a key sequence pp 760–763 toward (±)-podophyllotoxin

Francesco Mingoia, Maxime Vitale, David Madec \*, Guillaume Prestat, Giovanni Poli \*



A formal synthesis of podophyllotoxin was carried out in nine steps. The key pseudo-domino step was accomplished through the succession of an intermolecular palladium-catalyzed allylic alkylation and an intramolecular Mizoroki–Heck coupling reaction.

Synthesis and photoreactivity of some 5-alkylidene- and 5-alkylidenamine-2,5-dihydroisoxazoles D. Donati, S. Fusi \*, F. Ponticelli, R. Rossi Paccani

pp 764-767



**Rhodium-catalyzed asymmetric hydrogenation with self-assembling catalysts in propylene carbonate** Benjamin Schäffner, Jens Holz, Sergey. P. Verevkin, Armin Börner \* pp 768-771



Propylene carbonate (PC) can be used as alternative solvent in the Rh-catalyzed hydrogenation of functionalized olefins with self-assembling catalysts to increase reaction rate and enantioselectivity.

Unprecedented four-way-output molecular response system based on biphenyl-2,2'-diyldiacridiniums: pp 772–776 induction of axial chirality through intramolecular hydrogen bonds between chiral amide groups Takanori Suzuki \*, Kenji Ohta, Tatsuo Nehira, Hiroki Higuchi, Eisuke Ohta, Hidetoshi Kawai,



#### Four-way-output molecular response system based on the dihydrodibenzo[*c*,*g*]phenanthrene skeleton: modulation of CD and FDCD activity by acid and electron-transfer Eisuke Ohta, Tatsuo Nehira, Hidetoshi Kawai, Kenshu Fujiwara, Takanori Suzuki \*



Total synthesis of cis-solamin A, a mono-tetrahydrofuran acetogenin isolated from Annona muricatapp 782–785Hiroyuki Konno \*, Yasuhiro Okuno, Hidefumi Makabe, Kazuto Nosaka, Akio Onishi, Yoshinari Abe,<br/>Atsuya Sugimoto, Kenichi Akajipp 782–785



# Stereoselective synthesis of the C33–C44 fragment of palau'amide Debendra K. Mohapatra \*, Sabita Nayak



Selective acylation of 4,5-diamino-9,9'-dimethylxanthene through an aggregation effect Francisco M. Muñiz, Luis Simón, Silvia Sáez, César Raposo, Joaquín R. Morán \*

The proximity of the 4,5-diamino groups in a 9,9'-dimethylxanthene skeleton provides unique reactivity due to aggregation effects. While treatment with 1 equiv of an isocyanate yields the diurea and starting material, under similar conditions, Boc<sub>2</sub>O essentially provides the monocarbamoyl derivative.



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pp 790–793

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#### Modulating N- versus O-arylation in pyrazolone-aryl halide couplings

Jennifer E. Golden \*, Shanina D. Sanders, Kristine M. Muller, Roland W. Bürli



Synthesis of 2,4-disubstituted 3-chlorofurans and the effect of the chlorine substituent in furan Diels-Alder pp 799-802 reactions

Ram N. Ram \*, Neeraj Kumar



## Direct catalytic asymmetric three-component Mannich reactions with dihydroxyacetone: enantioselective pp 803–807 synthesis of amino sugar derivatives

Pawel Dziedzic, Ismail Ibrahem, Armando Córdova \*



Selective addition of H2O to fullerene C60 catalyzed by Ti, Zr, and Hf catalystspp 808–810Airat R. Tuktarov \*, Arslan R. Akhmetov, Marko Pudas, Askhat G. Ibragimov, Usein M. DzhemilevPhysical Research and Physical Research and Physica





Efficient synthesis of 2,6-disubstituted-5-hydroxy-3-oxo-2,3-dihydro-pyridazine-4-carboxylic acid ethyl esters pp 811–815 Douglas E. Murphy \*, Peter S. Dragovich, Benjamin K. Ayida, Thomas M. Bertolini, Lian-Sheng Li, Frank Ruebsam, Nebojsa S. Stankovic, Zhongxiang Sun, Jingjing Zhao, Yuefen Zhou



# Synthesis of the $C_1-C_{12}$ fragment of the tedanolides. Selective hydroboration-protonation of allylic alcohol pp 816–819 approach

Michael E. Jung \*, Dongwon Yoo



A highly stereoselective vinyllithium addition and hydroboration-protonation of the resulting allylic alcohol permits the preparation of the completely protected  $C_1$ - $C_{12}$  fragment 2 of the novel macrocyclic cytotoxic agent tedanolide 1.

#### Highly regio- and stereoselective synthesis of tricyclic frameworks using Baylis–Hillman derivatives Manickam Bakthadoss \*, Nagappan Sivakumar, Govindan Sivakumar, Gandhi Murugan

#### pp 820-823

A simple and convenient route for the synthesis of tricyclic chromeno[4,3-*b*]pyrrolidine frameworks using Baylis–Hillman bromides involving a substitution followed by in situ formation of an imine, decarboxylation and a [3+2] cycloaddition sequence is reported.



R = H, 4-Me, 4-Et, 4-<sup>i</sup>Pr, 4-F, 2-Cl, 3-Cl, 4-Cl R<sup>1</sup> = H, 3,4-di-OMe, 3-Cl, 4-Cl, 2,4-di-Cl

#### Synthesis of 2-(N-disubstituted amino)ethyltriphenylphosphonium bromides

G. Venkateswara Rao, G. Chandrasekara Reddy \*



pp 824-826

## Rapid access to CF<sub>3</sub>-containing heterocycles

Adrian P. Dobbs \*, Robert J. Parker, John Skidmore



A novel reagent combination for the oxidation of highly electron deficient pyridines to *N*-oxides: trifluoromethanesulfonic anhydride/sodium percarbonate Xizhen Zhu \*, Kevin D. Kreutter, Huaping Hu, Mark R. Player, Micheal D. Gaul pp 832-834

pp 827-831



Microwave assisted ring-opening of epoxides with *N*-biaryl sulfonamides in the synthesis of matrix metalloproteinase-9 inhibitors

Shyh-Ming Yang \*, William V. Murray

**Copper-catalyzed arylation of phenylurea using KF/Al<sub>2</sub>O<sub>3</sub>** Rahman Hosseinzadeh \*, Yaghoub Sarrafi, Maryam Mohadjerani, Fatemeh Mohammadpourmir



An efficient and mild method for the coupling of aryl iodides with phenylurea using air-stable CuI as a copper source and  $N_{,N'}$ -dibenzylethylenediamine as an effective ligand in the presence of KF/Al<sub>2</sub>O<sub>3</sub> as a base is described.

pp 840-843

pp 835-839

Issa Yavari \*, Zinatossadat Hossaini, Maryam Sabbaghan



Ag(I)-catalyzed cyclization reaction of ethyl o-hydroxyphenylethynylphosphinates to phosphachromones pp 847-850 Liang Xie, Jing Ma, Yi-Xiang Ding \*

An Ag(I)-catalyzed intramolecular cyclization of ethyl o-hydroxyphenylethynylpho-sphinate to phosphachromones has been developed with high regioselectivity and good yields. The present reaction represents the first example of intramolecular addition of phenol to 1-alkynylphosphonates, which provides an approach to synthesize new phosphorus heterocycles. The resulting phosphachromones could have potential bioactivities.

Substrate dependent intramolecular palladium-catalysed cyclisation and subsequent  $\beta$ -H elimination or C–H pp 851-854 activation: a general method for the synthesis of fused pyran rings Rathin Jana, Shubhankar Samanta, Jayanta K. Ray \*



InBr<sub>3</sub>-catalyzed stereoselective synthesis of trans-2,6-disubstituted 3,6-dihydro-2H-pyrans J. S. Yadav \*, V. Sunitha, B. V. Subba Reddy, P. P. Das, E. Gyanchander

pp 855-857

$$\overset{\text{Ph}}{\frown} \overset{\text{OH}}{\frown} \overset{\text{+}}{\frown} \overset{\text{-}}{\searrow} \overset{\text{Si}}{\frown} = \underbrace{\overset{10 \text{ mol}\% \text{ InBr}_3}{\text{CH}_2\text{Cl}_2, \text{ r.t.}} \overset{\text{Ph}}{\frown} \overset{\text{O}}{\bigcirc} \overset{\text{(i)}}{\frown} \overset{\text{(i)}}$$

### An efficient FeCl<sub>3</sub>-catalyzed amidation reaction of secondary benzylic and allylic alcohols with carboxamides or *p*-toluenesulfonamide

Umasish Jana \*, Sukhendu Maiti, Srijit Biswas









#### A facile synthesis of naturally occurring 5-(3-indolyl)oxazoles Dalip Kumar \*, Swapna Sundaree, Gautam Patel, V. S. Rao



#### α-Amino 1,3-dithioketal mediated asymmetric synthesis of piperidines (L-733,060) and tetrahydrofuran pp 870-872 glycines

Franklin A. Davis \*, Tokala Ramachandar



pp 858-862

pp 867-869

## Arylbutyltellurides as precursors of dilithium arylthienylcyanocuprates in a straightforward approach to phenethylamine derivatives precursors of dilithium arylthienylcyanocuprates in a straightforward approach to phenethylamine derivatives precursors of dilithium arylthienylcyanocuprates in a straightforward approach to phenethylamine derivatives precursors of dilithium arylthienylcyanocuprates in a straightforward approach to phenethylamine derivatives precursors of dilithium arylthienylcyanocuprates in a straightforward approach to phenethylamine derivatives precursors of dilithium arylthienylcyanocuprates in a straightforward approach to phenethylamine derivatives precursors of dilithium arylthienylcyanocuprates in a straightforward approach to phenethylamine derivatives precursors of dilithium arylthienylcyanocuprates in a straightforward approach to phenethylamine derivatives precursors of dilithium arylthienylcyanocuprates in a straightforward approach to phenethylamine derivatives phenethylamine d

Fabiano T. Toledo, Rodrigo L. O. R. Cunha, Cristiano Raminelli, João V. Comasseto \*



The ring opening reaction of *N*-tosyl aziridines with dilithium arylthienylcyanocuprates generated from arylbutyltellurides produced phenethylamine derivatives in good to excellent yields.

Synthesis of substituted benzimidazoles via tosylation of *N*-aryl amidoxime Yuhei Yamamoto \*, Takayuki Tsuritani, Toshiaki Mase

pp 876-878



Tosylation of N-aryl amidoxime in the presence of TEA produces the corresponding benzimidazoles in high yields.

Greener and rapid access to bio-active heterocycles: one-pot solvent-free synthesis of 1,3,4-oxadiazoles and pp 879–883 1,3,4-thiadiazoles

Vivek Polshettiwar, Rajender S. Varma \*



Electrocatalytic reactions: anion radical cyclobutanation reactions and electrogenerated base reactions pp 884–887 Greg A. N. Felton



### Discreteness of $\pi$ -conjugation of 1,6-methano[10]annulene by troponoid fusion at the 3,4-positions

Yanmei Zhang, Eri Hisano, Reina Ohta, Ryuta Miyatake, Yoshikazu Horino, Mitsunori Oda \*, Shigeyasu Kuroda '



### Aerobic oxidative iodination of organic molecules activated by sodium nitrite

Jernej Iskra \*, Stojan Stavber, Marko Zupan



Aerobic oxidative iodination activated by sodium nitrite occurs effectively and selectively with 100% iodine atom economy, with air as the oxidant.

Synthesis and characterization of novel cofacial bis-phthalocyanines containing 16-crown-5 ether groups pp 896–900 Metin Özer, Ahmet Altındal, Bekir Salih, Mustafa Bulut, Özer Bekaroğlu



M: Zn Co

Novel cofacial bis-phthalocyanines containing crown ethers were synthesized by the cyclic condensation of dihydroxy groups at the periphery of the bisphthalocyanine complexes with tetraethyleneglycol ditosylate in the presence of NaH as base in refluxing THF.

### An efficient chiral synthesis of fluoro-containing amino acids: N-benzyloxycarbonyl-2-amino-4,4difluorobutyric acid methyl ester and its analogs

Zilun Hu \*, Wei Han

$$EtO_{CHF_{2}}OH + CO_{2}Me PO(OMe)_{2}$$

$$KO^{t}Bu + CO_{2}Me CO_{2}Me CHF_{2} + CO_{2}Me CHF_{2} + CHF_{$$

pp 893-895

pp 901-902

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#### Synthesis of pyridazines functionalized with amino acid side chains Enrique Mann, Lionel Moisan, Jun-Li Hou, Julius Rebek, Jr. \*



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pp 906-909

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The reactivity of bis lactams is studied by [<sup>15</sup>N]-isotopic labeling, toward the transannular rearrangement of activated lactams (TRAL), a new reaction allowing access to valuable pharmacological scaffolds.

Iminosugar thioglycosides as glycosyl donors: a route to disaccharides with an iminosugar moiety José Fuentes \*, Nader R. Al Bujuq, Manuel Angulo, Consolación Gasch



Controlled conversion of phenylacetic acids to phenylacetonitriles or benzonitriles using bis(2-methoxyethyl)pp 914-918 aminosulfur trifluoride

Cyrous O. Kangani<sup>\*</sup>, Billy W. Day, David E. Kelley



A mild, efficient, and practical method for the one-step synthesis of benzonitriles from phenylacetic acids using bis(2methoxyethyl)aminosulfur trifluoride is described. The reaction was easily extended to the synthesis of the corresponding phenylacetonitriles by inclusion of triethylphosphine.



A general synthetic approach for the synthesis of  $\beta$ -hydroxy- $\delta$ -lactones: asymmetric total synthesis of prelactones and *epi*-prelactones V and E

Gowravaram Sabitha \*, P. Padmaja, K. Bhaskar Reddy, J. S. Yadav



Peptoid dendrimers—microwave-assisted solid-phase synthesis and transfection agent evaluation Juan J. Diaz-Mochon, Mario A. Fara, Rosario M. Sanchez-Martin, Mark Bradley \*

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\*Corresponding author *(D*<sup>+</sup> Supplementary data available via ScienceDirect

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