

Tetrahedron Letters Vol. 47, No. 46, 2006

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Mature homogeneous erythropoietin-level building blocks by chemical synthesis: the EPO 114–166 pp 8013–8016 glycopeptide domain, presenting the O-linked glycophorin

Jiehao Chen, Gong Chen, Bin Wu, Qian Wan, Zhongping Tan, Zihao Hua and Samuel J. Danishefsky*



Selective oxidation of sulfides to sulfoxides using a silica immobilised vanadyl alkyl phosphonate catalyst pp 8017–8019 Mohammed Al-Hashimi, Emilie Fisset, Alice C. Sullivan^{*} and John R. H. Wilson

A range of sulfides can be selectively oxidised to the corresponding sulfoxides in good yields using catalytic quantities of immobilised vanadyl, cobalt or nickel alkyl phosphonates and the reoxidant sodium bromate or vanadyl alkyl phosphonate with *tert*-butyl hydroperoxide or aqueous hydrogen peroxide as oxidants.

Palladium catalyzed α-arylation of methyl isobutyrate and isobutyronitrile: an efficient synthesis of 2,5-disubstituted benzyl alcohol and amine intermediates pp 8021–8024

Rupa Shetty and Kristofer K. Moffett*



Parallel solution-phase synthesis of substituted 2-(1,2,4-triazol-3-yl)benzimidazoles Natalya V. Ivanova,* Sergey I. Sviridov and Aleksandr E. Stepanov pp 8025-8027



One-step axial acetoxylation at C-23. A new method for the functionalization of the side chain of pp 8029–8031 steroid sapogenins

Martin A. Iglesias-Arteaga* and Rafael O. Arcos-Ramos



Treatment of steroid sapogenins with diacetoxyiodobenzene (DIB) and boron trifluoride ethyl etherate in acetic acid led to the introduction of an axial acetoxyl group at position C-23 of the side chain.

Synthesis and axial ligation behaviour of sterically hindered Zn(II)–porphyrin liquid crystals C. Arunkumar, P. Bhyrappa^{*} and B. Varghese

pp 8033-8037



A series of low melting liquid crystalline octaalkyloxyporphyrins has been synthesised. Their Zn(II)-complexes display interesting ligation behaviour towards amines of varying shapes and sizes.

Facile *N-tert*-butoxycarbonylation of amines using La(NO₃)₃·6H₂O as a mild and efficient catalyst under solvent-free conditions pp 8039–8042

N. Suryakiran, P. Prabhakar, T. Srikanth Reddy, K. Rajesh and Y. Venkateswarlu*



A highly diastereoselective approach to tetrahydrofurans via [3+2] cycloadditions of silylmethylsubstituted cyclopropanes with aldehydes and ketones pp 8043–8047

Archana Gupta and Veejendra K. Yadav*



An efficient and highly diastereoselective preparation of highly substituted tetrahydrofurans from the cyclocondensation of vicinal *t*-butyldiphenylsilylmethyl-substituted cyclopropyl diesters with aldehydes and ketones has been developed.

Cu-Nanoparticles: efficient catalysts for the oxidative cyclization of Schiffs' bases Mazaahir Kidwai,* Vikas Bansal, Amit Saxena, Swati Aerry and Subho Mozumdar



Cu-Nanoparticles provide an efficient catalysis for the synthesis of 2-arylbenzoxazoles by the coupling of aromatic or heteroaromatic aldehydes with 2-aminophenol though the oxidative cyclization of the Schiffs' bases using 10 mol % of the Cu-nanoparticles in the presence of K_2CO_3 , in MeOH.

Activity and behavior of imidazolium salts as a phase transfer catalyst for a liquid–liquid phase system pp 8055–8058 Sentaro Okamoto,* Kouichi Takano, Tomohiro Ishikawa, Satoshi Ishigami and Akiko Tsuhako

The structure–activity relationship and behavior of N,N'dialkylimidazolium salts as a phase transfer and/or ionexchange catalyst in a liquid–liquid phase system were investigated for various reactions.



pp 8049-8053

Brønsted acid TfOH-mediated reactions of 2-(arylmethylene)cyclopropylcarbinols with acetonitrile Min Shi* and Guo-Qiang Tian

MeCN

Brønsted acid TfOH-mediated reactions of 2-(arylmethylene)cyclopropylcarbinols 1, another kinds of MCPs bearing a hydroxymethyl group, with acetonitrile produced the corresponding ring-enlarged N-(3-arylmethylidenecyclobutyl)-

An expeditious preparation of E-2-amino-5-hydroxyadamantane and its Z-isomer Libuse Jaroskova, Louis Van der Veken, Paul de Belser, Gaston Diels, Alex de Groot and Joannes T. M. Linders*

Synthesis of nucleobase-functionalized β-peptoids and β-peptoid hybrids Xavier Mejías, Lidia Feliu, Marta Planas and Eduard Bardají*

Kinetic resolution of vic-amino alcohols catalyzed by a chiral Cu(II) complex Masaru Mitsuda, Tomoaki Tanaka, Toshimitsu Tanaka, Yosuke Demizu, Osamu Onomura and Yoshihiro Matsumura*



s=177

CO₃ (1.0 eq) rt. 3 h

in Et₂O

dl-12



(S)-13

49%yield 95% ee





(*R*)-12

50% yield 98% ee

. ℃–Me





1. L-(-)-α-methylbenzylamine Al(OiPr)₃

2 Fractional crystallization 3. H₂/10% Pd-C. MeOH

TfOH

pp 8059-8062



pp 8063-8067

pp 8069-8071

pp 8073-8077





Catalytic enantioselective alkenylation and phenylation of trifluoromethyl ketones Rie Motoki, Daisuke Tomita, Motomu Kanai^{*} and Masakatsu Shibasaki^{*}





Convenient 'one-pot' synthesis of 3,4-substituted tetrahydrothiophenes through tandem Michael-Henry pp 8087-8090 and Michael-Michael reactions

Achille Barco, Nikla Baricordi, Simonetta Benetti,* Carmela De Risi and Gian Piero Pollini*



Control of the platinum(II) ligating properties of rigid 1,2-diamines: the case of *trans*-2,3-diaminonorbornane

pp 8091-8093

Aurélie Maisonial, Mounir Traikia, Arnaud Gautier* and David J. Aitken*



Norbornane-based trans-1,2-diamine was identified as a single bridging ligand for a binuclear platinum(II) complex.

pp 8079-8081

Biomimetic transfer hydrogenation of ketones with iron porphyrin catalysts

Stephan Enthaler, Giulia Erre, Man Kin Tse, Kathrin Junge and Matthias Beller*

Synthesis of novel fluorescent 3-aryl- and 3-methyl-7-aryl-[1,2,3]triazolo[1,5-*a*]pyridines by Suzuki pp 8101–8103 cross-coupling reactions

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Belén Abarca,* Ricardo Aucejo, Rafael Ballesteros, Fernando Blanco and Enrique García-España

In situ generated iron porphyrin catalysts for the transfer hydrogenation of ketones have been developed.

Two series of compounds, 3-aryl- (series A, compounds $2\mathbf{a}$ - \mathbf{j}) and 3-methyl-7-aryl-[1,2,3]triazolo[1,5-a]pyridines (series B, compounds $3\mathbf{a}$ - \mathbf{j}) have been synthesized by Suzuki cross-coupling reactions, in moderate to good yields. All compounds obtained are highly fluorescents.

Cyclodextrin-[60]fullerene conjugates: synthesis, characterization, and electrochemical behavior Francesco Giacalone,* Francesca D'Anna, Rosalia Giacalone, Michelangelo Gruttadauria, Serena Riela and Renato Noto*





CCA or H₅IO₆

H₂SO₄ (1 equiv)

MeCN/H₂O

`NH

 \dot{R}^1



()+



pp 8095-8099





pp 8109-8113

2,6-Bis(2-benzimidazolyl)pyridine receptor for urea recognition

Bolin Chetia and Parameswar K. Iyer*



2,6-Bis(2-benzimidazolyl)pyridine is an efficient receptor for binding neutral guests such as urea with high affinity. The complexes are characterized by spectroscopy and X-ray diffraction analysis.

Biohydrolysis of (S)-3-(thiophen-2-ylthio)butanenitrile

M. Gelo-Pujic,* C. Marion, C. Mauger, M. Michalon, T. Schlama and J. Turconi

pp 8119-8123



Enzymatic hydrolysis is shown to be the only efficient approach in the synthesis of (S)-3-(thiophen-2-ylthio)-butanoic acid, an intermediate of Dorzolamine.

The use of organophotoacids for deprotection reactions in organic synthesis

pp 8125-8128

Yuichi Nishikubo, Shinya Kanzaki, Shuichi Matsumura and Kazunobu Toshima*



A new acridine derivative as a fluorescent chemosensor for zinc ions in an 100% aqueous solution: pp 8129–8132 a comparison of binding property with anthracene derivative

Min Sun Park, K. M. K. Swamy,* Yoon Ju Lee, Han Na Lee, Yun Jung Jang, Young Hyun Moon and Juyoung Yoon*



pp 8115-8117

8003

Ultrasound enhanced synthesis of 1,5-benzodiazepinic heterocyclic rings Karla P. Guzen, Rodrigo Cella* and Hélio A. Stefani*

$\underbrace{\bigcup_{NH_2}}_{NH_2} + \underbrace{O}_{R} \xrightarrow{CH_2 \cup I_2}_{APTS}$

CeCl₃·7H₂O: an efficient and reusable catalyst for the preparation of β -acetamido carbonyl compounds pp 8137–8141 by multi-component reactions (MCRs)

+ RCHO $\frac{\text{CeCl}_3 \cdot 7\text{H}_2\text{O} (10 \text{ mol}\%)}{\text{CH}_3\text{COCl}, \text{CH}_3\text{CN}}$

 $\begin{array}{c} \text{CHO} & \text{O} & \text{O} \\ + & \begin{array}{c} & \text{O} & \text{O} \\ & \text{H} \end{array} \\ \end{array} \\ \begin{array}{c} \text{CeCl}_3 \cdot 7\text{H}_2\text{O} (10 \text{ mol}\%) \\ \hline \text{CH}_3\text{COCl}, \text{CH}_3\text{CN}, \end{array} \\ \end{array}$

NHCOCH₃

Abu T. Khan,* Lokman H. Choudhury, Tasneem Parvin and Md. Asif Ali

R = benzylic

syn anti A mild and practical method for the regioselective synthesis of N-acylated 3,4-dihydropyrimidin-2-ones. pp 8143-8146 New acyl transfer reagents

Kamaljit Singh* and Sukhdeep Singh



The treatment of 3,4-dihydropyrimidin-2-ones with n-BuLi at -78 °C, followed by quenching with various electrophiles furnished N3-substituted derivatives, regioselectively. Further, N1,N3-diacyl derivatives were found to transfer N1-acyl groups to nucleophilic sites.

Efficient synthesis of thioamide terminated molecular wires

Sally Dixon and Richard J. Whitby*



Primary-thioamide terminated oligo(phenylene ethynylene) 'molecular wires' are synthesised.



pp 8147-8150

pp 8133-8136

[4+3] Cycloadditions of some allylic dioxolanes

Michael Harmata,* James A. Brackley, III and Charles L. Barnes



Four allylic dioxolanes were prepared and reacted with several dienes in the presence of Lewis acids, affording [4+3] cycloadducts. The reaction could be conducted with catalytic amounts of Lewis acid. The use of a chiral Lewis acid gave a cycloadduct with only a low enantiomeric excess.

A new rearrangement of fused tetracyclic heterocycles in an acidic medium in the presence of NaBH₃CN pp 8157–8159 Hana Zachová, Radek Marek, Stanislav Man, Jan Taraba and Milan Potáček*



A convenient one-pot synthesis of 7-hydroxy-isoflavones from resorcinol with substituted phenylacetic pp 8161–8163 acids

Himanshu Singh and Ram Pratap*



A mild and highly efficient one-pot synthesis of isoflavones is reported.

Colorimetric and fluorescence sensing of anions using thiourea based coumarin receptors Kumaresh Ghosh* and Suman Adhikari pp 8165-8169

 $\mathbf{1}, \mathbf{R} = -\mathbf{NO}_2$ $\mathbf{2}, \mathbf{R} = \mathbf{H}.$

Thiourea-containing coumarins 1, 2 have been designed and synthesized. Their anion-binding ability has been examined using UV–vis, fluorescence and ¹H NMR with 1 showing a strong binding to $C_6H_5COO^-$ over F⁻ with a distinct change in color.

pp 8151-8155

β,β'–Corrole dimers

Joana F. B. Barata, Ana M. G. Silva, Maria G. P. M. S. Neves, Augusto C. Tomé, Artur M. S. Silva and José A. S. Cavaleiro*



Dehydroxymethylation: an unusual reverse reaction of nucleophilic addition to formaldehyde Lingling Peng, Ming Ma, Xiu Zhang, Shiwei Zhang and Jianbo Wang*

pp 8175-8178



The first asymmetric total synthesis of (R)-tuberolactone, (S)-jasmine lactone and (R)- δ -decalactonepp 8179–8181Gowravaram Sabitha,* V. Bhaskar and J. S. Yadav



Total synthesis of 1-(Z)-atractylodinol

Juliana M. Oliveira, Gilson Zeni, Ivani Malvestiti and Paulo H. Menezes*



pp 8183-8185

*Corresponding author (*J*⁺ Supplementary data available via ScienceDirect

Available online at www.sciencedirect.com



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