Tetrahedron Letters 49 (2008) 4079-4087

Contents lists available at ScienceDirect

Tetrahedron Letters

journal homepage: www.elsevier.com/locate/tetlet

Tetrahedron Letters Vol. 49, No. 26, 2008

Contents

Br

CH₃O

578-587 nm

Olefin exchange-mediated cyclopropanation of nitriles with homoallylic alcohols



CH₃O





COMMUNICATIONS

CH₃O





pp 4089-4091

pp 4092-4095

Unprecedented base-promoted cascade transformation of a pyrimidinone derivative into a novel tricyclic bis-diazepinone

Anatoly D. Shutalev^{*}, Anastasia A. Fesenko, Dmitry A. Cheshkov, Dmitry V. Goliguzov



Sensing cyanide ion via fluorescent change and its application to the microfluidic system

Soo Kyung Kwon, Songzi Kou, Ha Na Kim, Xiaoqiang Chen, Hyejin Hwang, Seong-Won Nam, So Hyun Kim, K. M. K. Swamy *, Sungsu Park *, Juyoung Yoon *



CN

Hao Wei, Yong Jian Zhang, Yijun Dai, Jiaming Zhang, Wanbin Zhang



A new type of atropisomeric bisphosphine ligands **2** with a bridge across the 5,5'-position of biphenyl has been developed. The axial chirality of this type of ligands can be retained by macro-ring strain produced from 5,5'-linkage of biphenyl even without 6,6'-substituents on biphenyls. The ligand (R)-**2a** showed high catalytic activities and enantioselectivities (up to 95.3% ee and quantitative yields) for Rh(1)-catalyzed asymmetric hydrogenation of a variety of methyl (Z)-2-acetamido-3-arylacrylates.

Synthesis of tetrasubstituted furans via In-catalyzed propargylation of 1,3-dicarbonyl compounds-cyclization pp 4110–4112 tandem process

Xunbo Feng, Ze Tan^{*}, De Chen, Youming Shen, Can-Cheng Guo^{*}, Jiannan Xiang^{*}, Chengliang Zhu



pp 4099-4101

pp 4102-4105



Synthesis, modification, and optical properties of C3-ethynylated chlorophyll derivatives

Shin-ichi Sasaki, Keisuke Mizutani, Michio Kunieda, Hitoshi Tamiaki



Methyl pyropheophorbide-*d* was treated with Bestmann-Ohira reagent to afford 3-ethynyl-chlorin. The terminal acetylene moiety was subjected to cross-coupling reaction as well as 1,3-dipolar cycloaddition with azido compounds.

Progress toward the synthesis of piperazimycin A: exploration of the synthesis of γ -hydroxy and γ -chloropiperazic acids

J. Phillip Kennedy, John T. Brogan, Craig W. Lindsley *



4-Oxoheptanedioic acid: an orthogonal linker for solid-phase synthesis of base-sensitive oligonucleotides Anna Leisvuori, Päivi Poijärvi-Virta, Pasi Virta ^{*}, Harri Lönnberg



pp 4122-4124

 $R - OH \longrightarrow O \longrightarrow O \longrightarrow R' = OH \longrightarrow R' = OH \longrightarrow R' = NH \longrightarrow R' = NH$

Ruphos-mediated Suzuki cross-coupling of secondary alkyl trifluoroborates

Adri van den Hoogenband^{*}, Jos H. M. Lange, Jan Willem Terpstra, Melle Koch, Gerben M. Visser, Martin Visser, Ties J. Korstanje, Johann T. B. H. Jastrzebski



Aryl- and heteroaryl bromides are converted to the corresponding cyclopentyl analogues by a Ruphos-mediated Suzuki cross-coupling. The method is also applicable to potassium isobutyltrifluoroborate.

pp 4113-4115

pp 4116-4118

Nucleophilic substitution at an sp² carbon of vinyl halides with an intramolecular thiolate moiety: synthesis of 2-alkylidenethietanes pp 4125–4129

Mao-Yi Lei, Koji Fukamizu, Yong-Jun Xiao, Wei-Min Liu, Scott Twiddy, Shunsuke Chiba, Kaori Ando, Koichi Narasaka *



Thermal isomerization of dewarbenzene derivatives

Lorraine Ferrar, Mark Mis, Douglas R. Robello

The rates of thermal conversion of seven simple dewarbenzene derivatives to their corresponding benzene isomers were measured. Relatively minor substituent changes were found to have profound effects; isomerization rates increased with the number and strength of electron-withdrawing moieties. Surprisingly, the rate of thermal isomerization for one derivative was the same in fluid solution as in a solid polymer matrix, suggesting that this reaction has a low volume of activation. Other preliminary experiments suggest that the putative intermediate has polar character. These data may provide some insights into the reaction mechanism.

 $H_3($

organocatalyst

anti

up to >95% ee

4 R = Bn 5 R = 1-Naphthyl

Camphor containing organocatalysts in asymmetric aldol reaction on water

Zheng-Hao Tzeng, Hung-Yao Chen, Ching-Ting Huang, Kwunmin Chen

A new class of bifunctional organocatalysts were synthesized and proved to be effective in catalyzing aldol reaction on water with high to excellent diastereo- and enantioselectivities.

Direct alkylation of pyrrole with vinyl substituted aromatics: versatile precursors for the synthesis of porphyrinoid macrocycles

Seong-Jin Hong, Seung-Doo Jeong, Jaeduk Yoo, Jong Seung Kim, Juyoung Yoon, Chang-Hee Lee *



1 R = H 2 R = OH 3 R = OTBDPS

pp 4134-4137

svn

pp 4130-4133



Suzuki–Miyaura cross-coupling of α -phosphoryloxy enol ethers with arylboronic acids

Lee Pedzisa, Ian W. Vaughn, Rongson Pongdee *



The Suzuki–Miyaura cross-coupling reaction of cyclic ketene acetal phosphates with arylboronic acids was found to be a convenient and highly efficient method for the construction of aryl vinyl ethers. A wide variety of differentially substituted electron-poor and electron-rich arylboronic acids smoothly underwent the coupling process to provide the desired dihydropyrans in moderate to excellent yields.

Syntheses of 2-arylbenzothiazoles from flash vacuum pyrolyses and photolyses of 2-methylthio-*N*-(arenylidene)anilines

Chin-Hsing Chou^{*}, Pin-Chih Yu, Bo-Chi Wang



Ar = phenyl, 2-furyl, 2-thienyl, 2-benzo[b]furyl, 2-benzo[b]thienyl, 2-(N-methyl)indolyl, 2-chlorophenyl, 2,4-dimethoxyphenyl

Convenient oxidation of benzylic and allylic halides to aldehydes and ketones

David X. Chen, Chi M. Ho, Q. Y. Rudy Wu, Peter R. Wu, Freeman M. Wong, Weiming Wu *



Synthesis of 2'- β -C-methyl-neplanocin derivatives as anti-HCV agents

Xibin Liao^{*}, Gabor Butora, David B. Olsen, Steven S. Carroll, Daniel R. McMasters, Joseph F. Leone, Mark Stahlhut, George A. Doss, Lihu Yang, Malcolm MacCoss



The synthesis of 2'- β -C-methyl-Neplanocin derivatives is described.

pp 4142-4144

pp 4145-4146

pp 4147-4148

pp 4149-4152

Enantioselectivity in the synthesis of 3,5-disubstituted Δ^2 -isoxazolines Amber L. Norman, Michael D. Mosher *

pp 4153-4155





pp 4156-4159

pp 4160-4162

Rapid stereoselective access to the tetracyclic core of puupehenone and related sponge metabolites using metal-free radical cyclisations of cyclohexenyl-substituted 3-bromochroman-4-ones

Robin G. Pritchard, Helen M. Sheldrake, Isobel Z. Taylor, Timothy W. Wallace *



Naphthopyranone synthesis via the tandem Michael–Dieckmann reaction of *ortho*-toluates with 5,6-dihydropyran-2-ones

Nichole P. H. Tan, Christopher D. Donner *



Facile synthesis of *ortho***-pyridyl-substituted corroles and molecular structures of analogous porphyrins** Irena Saltsman, Mark Botoshansky, Zeev Gross ^{*}

pp 4163-4166



Synthesis of enantiopure ethyl deoxymonate B from allylic sulfinyl dihydropyrans

Roberto Fernández de la Pradilla^{*}, Nadia Lwoff



Solvent-promoted chemiluminescent decomposition of a bicyclic dioxetane bearing a 4-(benzothiazol-2-yl)-3- pp 4170-4173 hydroxyphenyl moiety

Masakatsu Matsumoto^{*}, Masatoshi Tanimura, Taichi Akimoto, Nobuko Watanabe, Hisako K. Ijuin



Palladium(0)-catalyzed cis-selective alkylative and arylative cyclization of alkynyl enones with organoboron reagents

Hirokazu Tsukamoto^{*}, Takamichi Suzuki, Tomomi Uchiyama, Yoshinori Kondo



A palladium(0)-tricyclohexylphosphine catalyzes cis-selective arylative cyclization of alkynyl enones with arylboronic acids to provide five- or six-membered rings with exo trior tetra-substituted alkenes.

Fe(III)- and Hg(II)-selective dual channel fluorescence of a rhodamine–azacrown ether conjugate Xuan Zhang, Yasuhiro Shiraishi ^{*}, Takayuki Hirai



pp 4178-4181

pp 4174-4177



4085

Efficient, mild, parallel and purification-free synthesis of aryl ethers via the Mitsunobu reaction Eric Valeur ^{*}, Didier Roche

Asteropterin (1) was isolated as a cathepsin B inhibitor from the marine sponge Asteropus simplex.

Direct perfluoroalkylation of non-activated aromatic C-H bonds of phenols

Asteropterin, an inhibitor of cathepsin B, from the marine sponge Asteropus simplex

Shuhei Murayama, Yoichi Nakao, Shigeki Matsunaga

Masato Matsugi ^{*}, Masakazu Hasegawa, Shohei Hasebe, Shohei Takai, Ryusuke Suyama, Yusuke Wakita, Kanako Kudo, Hiromi Imamura, Toshiya Hayashi, Seiichi Haga



Takeshi Yamada^{*}, Mitunobu Doi, Hirohumi Shigeta, Yasuhide Muroga, Saki Hosoe, Atsushi Numata, Reiko Tanaka

pp 4186-4188





Asteropterin (1)

 $\begin{array}{l} \text{V-70L (1 eq)} \\ \text{C}_8\text{F}_{17}\text{I} \mbox{ (1.5 eq)} \\ \text{Cs}_2\text{CO}_3 \mbox{ (8 eq)} \end{array}$

DMF rt, 20 h o : 36%; p : 16% ; o/p : 25% СНО



pp 4192-4195



pp 4182-4185

Copper-promoted iodovinylation of amides: synthesis of $\boldsymbol{\beta}\text{-functionalized}$ enamides

Gabriel F. Sanapo, Benoit Daoust *



*Corresponding author

(*P*⁺ 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[®]

ISSN 0040-4039

pp 4196-4199