

Tetrahedron Letters Vol. 47, No. 7, 2006

Contents

COMMUNICATIONS

One-step syntheses of alkyl glycosides and alkyl-substituted DNA oligomers by chemoselective glycosidations using DNA bases

pp 1041-1045

Yuichi Nishikubo, Kaname Sasaki, Shuichi Matsumura and Kazunobu Toshima*

Stereoselective double addition of chiral alkynyl-zincs to cobalt-stabilized acetylenedicarbaldehyde Ming Li, Chunhai Zou, Carine Duhayon and Remi Chauvin*

pp 1047-1050

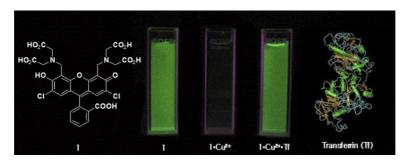
The Carreira's procedure has been adapted to the sensitive C_4 synthon of high functional density, to afford chiral secondary carbinol-skipped oligoyne complexes.



A fluorescein derivative for nanomolar aqueous copper and monitoring copper ion uptake by transferrin and amyloid precursor protein

pp 1051-1054

Eun Jin Jun, Jeong-A. Kim, K. M. K. Swamy, Sungsu Park* and Juyoung Yoon*





Reducing properties of 1,2-diaryl-1,2-disodiumethanes

pp 1055-1058

Ugo Azzena,* Mario Pittalis, Giovanna Dettori, Simona Madeddu and Emanuela Azara

$$Ph \xrightarrow{Na} Ar + R \xrightarrow{X} R_1 \xrightarrow{THF} Ph \xrightarrow{Ar} + R \xrightarrow{R_1} R_1$$

Ar = Ph, 2-pyridyl; X and/or X_1 = Br, Cl, OCH₃

Benign and highly efficient synthesis of quinolines from 2-aminoarylketone or 2-aminoarylaldehyde and pp 1059–1063 carbonyl compounds mediated by hydrochloric acid in water

Guan-Wu Wang,* Cheng-Sheng Jia and Ya-Wei Dong

$$\begin{array}{c} R^{1} \\ O \\ NH_{2} \end{array} + \begin{array}{c} R^{2} \\ O \\ R^{3} \end{array} \xrightarrow{\begin{array}{c} HCl \ (1.0 \ equiv.) \\ H_{2}O, \ \triangle \end{array}} \begin{array}{c} R^{1} \\ R^{2} \\ R^{3} \end{array}$$



Isomerization of allylic alcohols into saturated carbonyls using phosphorus tribromide Shagufta, Ajay Kumar Srivastava and Gautam Panda*

pp 1065-1070



Regioselective synthesis of 1-hydroxycarbazoles via anionic [4+2] cycloaddition of furoindolones: a short synthesis of murrayafoline-A

pp 1071-1075

D. Mal,* B. Senapati and P. Pahari

$$\begin{array}{c} \text{Me} \\ \text{N} \\ \text{O} \end{array} \begin{array}{c} \text{Me} \\ \text{CO}_2 \text{Me} \end{array} \begin{array}{c} \text{LDA} \\ \text{-78 °C to r.t.} \\ \text{67\%} \end{array} \begin{array}{c} \text{Me} \\ \text{OH} \\ \text{Ph} \end{array} \begin{array}{c} \text{3 steps} \\ \text{H} \end{array} \begin{array}{c} \text{Me} \\ \text{OMe} \end{array}$$

Murrayafoline-A

Acephenanthrylenes from flash vacuum thermolysis of diarylmethylidenecycloproparenes Brian Halton

pp 1077-1079

Flash vacuum thermolysis of fluorenylidenecyclopropa[b]naphthalene (1) leads to three-membered ring opening, rearrangement and formation of dibenzacephenanthrylenes 7 and 12. The diphenyl analogue also provides $C_{24}H_{14}$ polycyclic aromatics by cyclodehydrogenation/rearrangement.



Total synthesis of halipeptin A, a potent anti-inflammatory cyclodepsipeptide from a marine sponge Sousuke Hara, Kazuishi Makino and Yasumasa Hamada*

pp 1081-1085

Copper(II) tetrafluoroborate as a novel and highly efficient catalyst for N-tert-butoxycarbonylation of amines under solvent-free conditions at room temperature

pp 1087-1091

Sunay V. Chankeshwara and Asit K. Chakraborti*

Commercially available copper(II) tetrafluoroborate hydrate efficiently catalyses *N-tert*-butoxycarbonylation of amines under solvent-free conditions and at room temperature in high yields and in short times.



Reduction of maleate and fumarate by the CO₂⁻ anion radical

pp 1093-1096

Osnat Schutz and Dan Meyerstein*

$$\begin{split} &CO_2^- + maleate \rightarrow (\textbf{I}/\textbf{II} + CO_2)/ \cdot CH(CO_2^-)CH(CO_2^-)_2 \\ &CO_2^- + fumarate \rightarrow (\textbf{III}/\textbf{IV} + CO_2)/ \cdot CH(CO_2^-)CH(CO_2^-)_2 \end{split}$$

Visible light induced 'on water' benzylic bromination with N-bromosuccinimide

pp 1097-1099

Ajda Podgoršek, Stojan Stavber, Marko Zupan and Jernej Iskra*

'On water' benzylic bromination of toluene derivatives with N-bromosuccinimide (NBS) activated by visible light was effective despite the non-solubility of substrates (ArCH₃) in pure water.

Synthesis of combretastatins A-1 and B-1

pp 1101-1103

Kristin Odlo, Jo Klaveness, Pål Rongved and Trond Vidar Hansen*

Synthesis of some novel D-ring-fused dioxa- and oxazaphosphorinanes in the estrone series

combretastatin A-1

pp 1105-1108

Éva Frank,* Brigitta Kazi, Krisztina Ludányi and György Keglevich

An efficient synthesis of isothiazolidines via sulfonium ylides formed by the reaction of thietanes and nitrene

pp 1109-1111

Vijay Nair,* Smitha M. Nair, S. Devipriya and D. Sethumadhavan

An efficient synthesis of isothiazolidines in good yields is described.

Hydrolytically stable arabinofuranoside analogs for the synthesis of arabinosyltransferase inhibitors Manon Chaumontet, Valérie Pons, Karine Marotte and Jacques Prandi*

pp 1113-1116

Two new families of arabinosyltransferase inhibitors, incorporating C-glycoside and carba-sugar moieties have been prepared.

Amino acid-catalyzed asymmetric α-amination of carbonyls

pp 1117-1119

Christine Thomassigny, Damien Prim and Christine Greck*

On the mechanism of the metalation of 2-(pyridin-3-yl)benzoic acid derivatives

pp 1121-1123

David Tilly, Anne-Sophie Castanet and Jacques Mortier*

$$X = OH, N \neq Pr_2, OEt$$

Microwave-assisted solvent-free and catalyst-free Kabachnik–Fields reactions for α -amino phosphonates pp 1125–1127 Xue-Jun Mu, Mao-Yi Lei, Jian-Ping Zou* and Wei Zhang*

$$R^{1}CHO + R^{2}NH_{2} + HPO(OMe)_{2}$$

$$\frac{\text{no solvent}}{\text{no catalyst}} \quad R^{1} \quad P(OMe)_{2}$$

$$\frac{R^{1}CHO + R^{2}NH_{2} + HPO(OMe)_{2}}{MW (180W)} \quad H \quad NHR^{2}$$

A solvent-free and catalyst-free Kabachnik–Fields reaction for α -amino phosphonates is promoted by microwave irradiation and finished in 2 min.



Chloramultilide A, a highly complex sesquiterpenoid dimmer from *Chloranthus multistachys* Sheng-Ping Yang and Jian-Min Yue*

pp 1129-1132

$Microwave\ enhanced\ cross-coupling\ reactions\ involving\ alkenyl-\ and\ alkynyltrifluoroborates$

pp 1133-1136

George W. Kabalka,* Mohammad Al-Masum, Arjun R. Mereddy and Eric Dadush

Cross-coupling reactions of potassium arylvinyltrifluoroborates with aryl iodides in the presence of a palladium catalyst occur rapidly utilizing microwave irradiation. The coupled products are produced in excellent yields. Alkynyltrifluoroborates also undergo the coupling reaction.

Efficient synthesis of o-alkynyl-N-pivaloylanilines from o-acyl-N-pivaloylanilines and lithium trimethylsilyldiazomethane

pp 1137-1139

Yoshiyuki Hari, Tomoki Kanie and Toyohiko Aoyama*

$$R^{2} \xrightarrow{NHPiv} \begin{array}{c} O \\ Me_{3}SiC(Li)N_{2} \\ n-BuLi \\ N(Li)Piv \end{array}$$

Pd-catalyzed thiocarbamoylation of terminal alkynes with sulfenamide and carbon monoxide

pp 1141-1144

Hitoshi Kuniyasu,* Tomohiro Kato, Shigehito Asano, Jia-Hai Ye, Takumi Ohmori, Masaki Morita, Hiroshi Hiraike, Shin-ichi Fujiwara, Jun Terao, Hideo Kurosawa and Nobuaki Kambe*

$$\begin{array}{c} \text{PdCl}_2(\text{PPh}_3)_2/\text{PPh}_3\\ \text{ArSNEt}_2 + \text{R} = & \begin{array}{c} \frac{n_2 \text{Bu}_4 \text{NCl}}{\text{CO}} \\ \text{CH}_3 \text{CN} \end{array} \\ \text{Ar} = 2,4,5-tri\text{-}Cl\text{-}Cl_6H_2 \end{array} \begin{array}{c} \text{NEt}_2 \\ \text{CH}_3 \text{CN} \end{array}$$

Catalyst economy. Part 2: Sequential metathesis—Kharasch sequences using the Grubbs metathesis catalysts

pp 1145-1151

Chris D. Edlin, James Faulkner and Peter Quayle*

The Grubbs metathesis catalysts have been shown to participate in sequential metathesis-Kharasch sequences.

Novel rearrangement of N-enoyl oxazolidinethiones to N-substituted 1,3-thiazine-2,4-diones promoted by $NbCl_5$

pp 1153-1156

Hector Hernández, Sylvain Bernès, Leticia Quintero, Estibaliz Sansinenea and Aurelio Ortiz*

Highly regioselective [2+2+2] cycloaddition of terminal alkynes catalyzed by titanium complexes of *p-tert*-butylthiacalix[4]arene

pp 1157-1161

Naoya Morohashi,* Katsuya Yokomakura, Tetsutaro Hattori* and Sotaro Miyano

Thioamides via thiatriazolines

pp 1163-1166

Robert V. Kolakowski, Ning Shangguan and Lawrence J. Williams*

Iodocarbocyclization of α-iodocycloalkanones bearing an allenyl side chain: synthesis of spirocyclic cycloalkanones

pp 1167-1171

Hsien-Hsun Lin, Gen-I Lin, Ying-Ruei Lin, Chien-Fu Liang, Chao-Hsiang Chen and Chin-Kang Sha*

$$\frac{\text{AICI}_3, \text{ICI}}{\text{CH}_2\text{CI}_2} \qquad \frac{\text{AICI}_3, \text{ICI}}{\text{m}} \qquad \frac{\text{$$

N-Hydroxy indoles as flexible substrates in rearrangements—a novel reaction with activated triple bonds

pp 1173-1176

Mariana P. Duarte, Ricardo F. Mendonça, Sundaresan Prabhakar* and Ana M. Lobo*

$$\begin{bmatrix} Y = X = 0 \\ R & H \\ Y = X \end{bmatrix} + \begin{bmatrix} Y = X = 0 \\ R & N \\ H \end{bmatrix} + \begin{bmatrix} Y = X = 0 \\ R & N \end{bmatrix} + \begin{bmatrix} X & Y \\ R & N \end{bmatrix} +$$

A total synthesis of spiruchostatin A

pp 1177-1180

Takayuki Doi,* Yusuke Iijima, Kazuo Shin-ya, A. Ganesan and Takashi Takahashi*

1) The Shiina method

Synthesis of N-(iodophenyl)-amides via an unprecedented Ullmann-Finkelstein tandem reaction

pp 1181-1186

Patrick Toto, Jean-Claude Gesquière, Benoit Deprez and Nicolas Willand*

A new Ullmann–Finkelstein tandem reaction for the preparation of N-(iodophenyl)-amides is described.

Straightforward synthesis of 1,6-dioxaspiro[4.4]nonanes

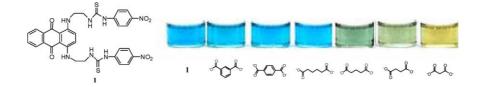
Jaisiel Meléndez, Francisco Alonso and Miguel Yus*

pp 1187-1191

(i) Li, DTBB (2.5%), R¹R²CO, THF, 0 °C, 2 h; (ii) H₂O; (iii) O₃, CH₂Cl₂, -78 °C, then SC(NH₂)₂, rt.

Synthesis of colorimetric receptors for dicarboxylate anions: a unique color change for malonate Yao-Pin Yen* and Kao-Wai Ho

pp 1193-1196





Construction of a new firefly bioluminescence system using L-luciferin as substrate

pp 1197-1200

Mitsuhiro Nakamura,* Kazuki Niwa, Shojiro Maki, Takashi Hirano, Yoshihiro Ohmiya and Haruki Niwa*

Regioselective reaction of quinones with Reformatsky reagent: (BrZnCH₂CO₂Et·THF)₂ Jun-ichi Kawakami,* Koji Nakamoto, Shigeru Nuwa, Syoji Handa and Shokyo Miki

pp 1201-1203

A new approach to four- and five-component Ugi condensations starting from nitriles

pp 1205-1207

Christopher A. Simoneau, Elizabeth A. George and Bruce Ganem*

R¹CN + R²Met or
$$R^{1}$$
 R^{2} R^{2} R^{2} R^{3} R^{3}



Synthesis of discodermolide intermediates from engineered polyketides

pp 1209-1211

Mark A. Burlingame,* Esteban Mendoza, Gary W. Ashley and David C. Myles

Key intermediates used in Smith's total synthesis of discodermolide were synthesized from an engineered polyketide made via precusor feeding to genetically modified polyketide producing bacteria.

Total synthesis of 6-epiprelactone-V via a syn-selective oxygen tethered intramolecular Michael reaction

pp 1213-1215

S. Chandrasekhar,* Ch. Rambabu and S. Jaya Prakash

OH

$$HO_2C$$
 CO_2H
 H_3C
 CH_3
 C

The intramolecular protective group (benzylidene acetal) assisted syn-1,3-diol synthesis has been efficiently utilized in a short synthesis of 6-epiprelactone-V starting from (S)-malic acid.

L-Proline promoted cross-coupling of vinyl bromide with thiols catalyzed by CuBr in ionic liquid

pp 1217-1220

Yunfa Zheng, Xingfen Du and Weiliang Bao*

$$R_1$$
-CH=CHBr + R_2 SH $\xrightarrow{\text{CuBr, Proline, } K_2\text{CO}_3}$ R_1 -CH=CH-S R_2



Synthesis of substituted benzene derivatives by homo- and hetero-coupling of 2-bromobenzaldehyde and pp 1221–1224 bromovinylaldehydes followed by McMurry coupling

Surajit Some, Bishnupada Dutta and Jayanta K. Ray*

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*Corresponding author

** Supplementary data available via ScienceDirect

COVER

Total synthesis of halipeptin A, a potent anti-inflammatory cyclodepsipeptide, has been achieved. Key steps are proline-catalyzed asymmetric α-oxyamination, diastereoselective aldol reaction, silver cyanide-mediated racemization-free esterification, and macrolactamization. *Tetrahedron Letters* **2006**, *47*, 1081–1085. © 2006 S. Hara. Published by Elsevier Ltd.



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