

Tetrahedron Letters Vol. 46, No. 11, 2005

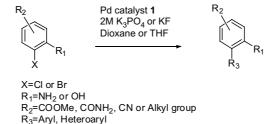
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COMMUNICATIONS

Efficient synthesis of substituted biaryl anilines and biaryl phenols via a Suzuki cross-coupling reaction

pp 1779-1782

Bin Liu,* Kristofer K. Moffett, Rhoda W. Joseph and Bruce D. Dorsey



Novel erythromycin A derivatives: synthesis of 11,12-benzoxazine ketolides

pp 1783-1785

Bin Zhu,* Amy Maden and Mark J. Macielag

A novel series of 11,12-benzoxazine ketolide derivatives of erythromycin A has been synthesized. The C11,C12-benzoxazine structure was constructed stereoselectively through an intramolecular Michael addition reaction.

Mg(0)-promoted debromometalation of gem-difluoropropargyl bromides

pp 1787-1789

Masayuki Mae, Jiyoung A. Hong, Gerald B. Hammond* and Kenji Uneyama

Br
$$R$$
 Mg M -Cl R R R $M = Me2Si, Me3Sn$

A $Mg(0)/Me_3SiCl$ system was found to be effective for the preparation of difluoropropargylsilane. Also, Me_3SnCl worked well to give the corresponding propargylstannane.

An efficient route to 5-(hetero)aryl-2,4'- and 2,2'-bipyridines through readily available 3-pyridyl-1,2,4-triazines

pp 1791-1793

Valery N. Kozhevnikov,* Dmitry N. Kozhevnikov, Olga V. Shabunina, Vladimir L. Rusinov and Oleg N. Chupakhin



Easy saponification by metal silanolates: application in SPPS and in (S)-5-hydroxynorvaline preparation

pp 1795-1797

Ewelina Minta, Cédric Boutonnet, Nicolas Boutard, Jean Martinez and Valérie Rolland*

Radical deoxygenation of alcohols and intermolecular carbon-carbon bond formation with surfactant-type radical chain carriers in water

pp 1799–1802

Dae Hyan Cho and Doo Ok Jang*

Catalytic asymmetric aza Diels-Alder reactions of hydrazones using a chiral zirconium catalyst Yasuhiro Yamashita, Yumiko Mizuki and Shū Kobayashi*

pp 1803-1806

Catalytic asymmetric aza Diels–Alder reactions of hydrazones with Danishefsky's dienes proceeded in high enantioselectivities in the presence of a chiral zirconium catalyst. Formal synthesis of (S)-coniine was successfully attained using the present reaction.

Fluorous synthesis of biaryl-substituted proline analogs by 1,3-dipolar cycloaddition and Suzuki coupling reactions

pp 1807-1810

Wei Zhang* and Christine Hiu-Tung Chen

$$\begin{array}{c} R^1 \\ H_2N \\ \end{array} \\ \begin{array}{c} OR \\ C_8F_{17}O_2SO \end{array} \\ \begin{array}{c} CHO \\ + \\ R^3-N \\ \end{array} \\ \begin{array}{c} OR \\ + \\ R^3-N \\ \end{array} \\ \begin{array}{c} OH \\ \end{array} \\ \begin{array}{c} OH \\ \\ \end{array} \\ \begin{array}{c} OH \\$$

Scandium(III) triflate as an efficient and reusable catalyst for synthesis of 1,5-benzodiazepine derivatives

pp 1811-1813

Surya K. De* and Richard A. Gibbs

$$NH_2$$
 CH_2R_2 R_1 R_2 R_2 R_3

Statistical experimental design-driven discovery of room-temperature conditions for palladium-catalyzed cyanation of aryl bromides

pp 1815-1818

Federica Stazi, Giovanni Palmisano, Marco Turconi and Marco Santagostino*

DOE-optimized conditions, 13 additional examples.



A new synthesis of β -amino acids by use of ketene diethyl acetal as enolate equivalent

pp 1819-1821

Kai Rossen,* Pavol Jakubec, Michael Kiesel and Matthias Janik



Enantioselective syntheses of 3,4,5-trisubstituted γ -lactones: formal synthesis of (–)-blastmycinolactol pp 1 Minsheng He, Aiwen Lei and Xumu Zhang*

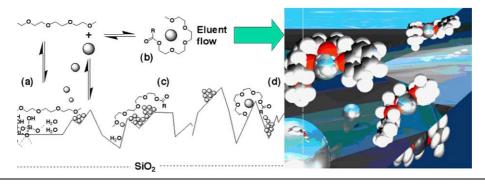
pp 1823-1826

$$\begin{array}{c} C_{3}H_{7}-n \\ \hline \\ (R)-BINAP \\ \hline \\ 8 \\ \hline \\ (-)-Blastmycinolactol \\ \end{array} \begin{array}{c} C_{3}H_{7}-n \\ \hline \\ (R)-BINAP \\ \hline \\ (R)-BINAP$$



Oligomeric ethylene glycols as sorting tags for parallel and combinatorial mixture synthesis Craig S. Wilcox* and Serhan Turkyilmaz

pp 1827-1829





Direct observation and kinetic characterization of o-quinodimethane and its radical cation variant generated in a photoinduced electron-transfer reaction of 1,2-bis(α -styryl)benzene

pp 1831-1835

Hiroshi Ikeda,* Teruyo Ikeda, Megumi Akagi, Hayato Namai, Tsutomu Miyashi, Yasutake Takahashi and Masaki Kamata



Evidence for a nucleophilic *anti*-attack on the cleaved C(2)-oxygen bond in Cl_2AlH -catalyzed ring-opening of 2-substituted 1,3-dioxolanes

pp 1837-1840

Carlo F. Morelli,* Arianna Fornili, Maurizio Sironi, Lavinia Durì, Giovanna Speranza and Paolo Manitto

(Lewis acid)
$$F_{3}C \longrightarrow O_{3}^{1} R (H)$$

$$Me \longrightarrow O_{3}^{1} R (R)$$

$$Syn (anti)$$

$$R = alkyl, aryl$$

$$R = alkyl, aryl$$

$$R = alkyl, aryl$$

Reductive ring-opening of both syn- and anti-dioxolanes gives rise to the same stereochemical outcome using either TiCl₄/Et₃SiD or Cl₂AlD as a reagent.

Transformation of methyl *N*-methyl-*N*-(6-substituted-5-nitro-4-pyrimidinyl)aminoacetates into 4-methylamino-5-nitrosopyrimidines and 9-methylpurin-8-ones

pp 1841-1844

Inga Susvilo, Algirdas Brukstus and Sigitas Tumkevicius*

$$\begin{picture}(100,10) \put(0,0){\line(1,0){100}} \put(0,0){\line(1,0){1$$

R = NH₂, PhNH, 3-CF₃C₆H₄NH, PhNMe, N(CH₂)₆, N(Me)CH₂CO₂CH₃; R' = Me, Et, Pr

Synthesis of 6,7-disubstituted-5*H*-pyrrolo[2,3-*b*]pyrazines via palladium-catalyzed heteroannulation Corey R. Hopkins* and Nicola Collar

pp 1845-1848

corcy R. Hopkins and Nicola Conai

$$\begin{array}{c} \text{CI}_2\text{Pd(dppf), LiCI,} \\ \text{Na}_2\text{CO}_3, \text{ DMF, MW (100 W,} \\ \text{time, temp)} \\ \text{N} \\ \text{NHMs} \\ \text{1} \\ \text{2a-i} \\ \text{3a-i} \\ \end{array}$$

A practical synthesis of highly functionalized aryl nitriles through cyanation of aryl bromides employing heterogeneous Pd/C

pp 1849-1853

Masanori Hatsuda and Masahiko Seki*

Ar-Br +
$$Zn(CN)_2 \xrightarrow{Pd/C, Zn, ZnBr_2, PPh_3} Ar-CN$$

Ar: substituted phenyl, heteroaryl with a substituent involving sterically congested electron-rich groups

Dynamic NMR study on the *trans*-fused eight-membered ether ring model representing G ring of brevetoxin A

pp 1855-1857

Takeshi Shida and Kazuo Tachibana*

1-Methylimidazole 3-N-oxide as a new promoter for the Morita-Baylis-Hillman reaction

pp 1859-1861

Yu-Sheng Lin, Chih-Wei Liu and Thomas Y. R. Tsai*

$$R' = -CH_3$$
 or $-OCH_3$

Nucleophilic vinylic substitutions of (Z)-(2-aroyloxyvinyl)phenyl- λ^3 -iodanes with tetrabutylammonium halides: vinylic $S_N 2$ reactions and ligand coupling on iodine(III)

pp 1863-1866

Masahito Ochiai,* Yoshio Nishi and Masaya Hirobe

Exposure of (Z)-(β -benzoyloxyvinyl)phenyl- λ^3 -iodanes to n-Bu₄NX in THF at 65 °C results in a vinylic S_N 2 reaction to give the inverted (E)-vinyl halides in high yields.

Approaches to installing a N-gem-dimethylmethylene-2-oxazolyl group and application to the synthesis pp 1867–1871 of a second generation HIV protease inhibitor

Norihiro Ikemoto,* Ross A. Miller,* Fred J. Fleitz,* Jinchu Liu, Daniel E. Petrillo, Joseph F. Leone, Joseph Laquidara, Benjamin Marcune, Sandor Karady, Joseph D. Armstrong, III and Ralph P. Volante

Two syntheses of the title compound 1 are described based on different approaches for installing the oxazole ring moiety. Formation and dehydration of ketoamide (A) was initially used and scaled up on several kilogram scale, then oxazole anion/iminium coupling (B) was developed for a more convergent approach.

Efficient and versatile synthesis of (2S,3R)-sphingosine and its 2-azido-3-O-benzylsphingosine analogue pp 1873–1875 Xuequan Lu and Robert Bittman*

Location effect of an OH group on the chemiluminescence efficiency of 4-hydroperoxy-2-(o-, m-, or p-hydroxyphenyl)-4,5-diphenyl-4H-isoimidazoles

pp 1877-1880

Mitsuru Tsunenaga, Hiroshi Iga and Masaru Kimura*

The location effect of an OH group on the chemiluminescence efficiencies of 4-hydroperoxy-2-(o-, m-, or p-hydroxyphenyl)-4,5-diphenyl-4H-isoimidazoles **4a**, **4b**, and **4c** was investigated. The efficiency of **4a** with o-OH was 0.28 times of that of lophine peroxide on the initiation with KOH/MeOH. When the trigger base was changed to TBAF/THF, the efficiency was 530-fold in a dry DMF. However, there is not such dramatic change in the efficiency for **4b** with m-OH and **4c** with p-OH by the change of trigger bases.

Synthetic studies toward tricyclic cembranoids: a modular approach for the construction of the tricyclic framework of eunicin

pp 1881-1884

Mukund K. Gurjar,* Sabita Nayak and C. V. Ramana

Tandem catalytic condensation and hydrogenation processes in ionic liquids

pp 1885-1887

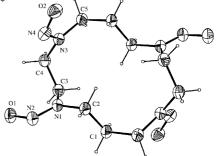
Mubeen Baidossi, Asutosh V. Joshi, Sudip Mukhopadhyay and Yoel Sasson*

Synthesis, characterization, and structure of a new *N*-nitrosamine of cyclam (1,4,8,11-tetraazacyclotetradecane)

pp 1889-1891

Alda Karine M. H. Sousa, Jackson R. Sousa, Marcelo O. Santiago, Elisane Longhinotti, Alzir A. Batista, Javier Ellena, Eduardo E. Castellano, Luiz G. F. Lopes and Ícaro S. Moreira*

The nitrosylation of 1,4,8,11-tetraazacyclotetradecane (cyclam) generates a new cyclam-(NO)₄ compound. The structure was resolved by crystal X-ray analysis, and the photoreactivity study suggest that the cyclam(NO)₄ compound behaves as a nitrosyl donor through an heterolytic cleavage of N–NO bond.



1-H-Cyclobuta[a]naphthalen-2-one

Horst Neudeck and Udo H. Brinker*

pp 1893-1895

Unexpected 1,2 syn diastereoselectivity in the three-component 'aza Sakurai-Hosomi' reaction Jean-René Ella-Menye, William Dobbs, Manuella Billet, Philippe Klotz* and André Mann*

pp 1897-1900

Large scale Biginelli reaction via water-based biphasic media: a green chemistry strategy

pp 1901-1903

Ajay K. Bose,* Maghar S. Manhas, Suhas Pednekar, Subhendu N. Ganguly, Hoang Dang, William He and Arun Mandadi

Rapid reactions with excellent yield and high atom economy are described.

The synthesis of spirophanes from a pentaerythrityl core

pp 1905-1907

Perumal Rajakumar,* Karuppannan Sekar and Kannupal Srinivasan

The synthesis of various thia- and oxa-spirobicyclic cyclophanes from a pentaerythrityl building block is described.

Reformatsky reactions with SmI2 in catalytic amount

pp 1909-1911

Fulvia Orsini* and Elvira Maria Lucci

X EWG + R O
$$\frac{SmI_2 \text{ cat.}}{Mg}$$
 R EWG

 $X = Br, I$
 $EWG = COOR^*; CN, C(O)R^*; P(O)(OR^*)_2$

A substoichiometric protocol for Reformatsky-type addition of α -haloesters, α -haloketones, α -halonitriles and α -halophosphonates to carbonyl compounds has been developed. β -Hydroxyesters and β -hydroxynitriles were obtained in good to excellent yields.

A concise synthesis of the functionalised cyclopentane unit in the antitumoural antibiotic viridenomycin pp 1913–1915 Gerald Pattenden,* Alexander J. Blake and Louis Constandinos

Grignard reagent-promoted selective ring expansion and alkylation of formyl borneol and isoborneol: pp 1917–1920 a new route to highly substituted cyclopentanes

Te-Fang Yang,* Zhong-Nian Zhang, Chih-Hao Tseng and Li-Hsun Chen

$$\begin{array}{c} RMgX \\ HO \end{array} \begin{array}{c} RMgX \\ HO \end{array} \begin{array}{c} RRgX \\ HO \end{array} \begin{array}{c} RRgX \\ RRgX \\$$

An efficient synthesis of tetrasubstituted cyclohexyl-1,2-diamines

pp 1921-1925

Hitesh Arjan, Ewan Boyd, Gregory S. Coumbarides, Jason Eames,* Ray V. H. Jones, Rachel A. Stenson and Michael J. Suggate

Isomers of neplanocin A and 2'-deoxyneplanocin A possessing a C-1'/C-6' double bond Xue-qiang Yin and Stewart W. Schneller*

pp 1927-1929

Metallic samarium and iodine promoted facile and efficient syntheses of trisubstituted alkenes from the acetates of Baylis-Hillman adducts

pp 1931-1934

Jian Li, Hua Xu and Yongmin Zhang*

Promoted by samarium metal in the presence of a catalytic amount of iodine, the Baylis–Hillman adducts underwent reductive elimination to form (E)-methylcinnamic ester derivatives. When the iodine was used in 1:1 ratio with metallic samarium, stereospecific syntheses of allylic iodide derivatives, (2Z)-2-(iodomethyl)alk-2-enoates, were achieved. Thus, this gives a new approach to the selective construction of stereo-defined trisubstituted alkenes with the simple Sm/I₂ system.

OAC Ar COOMe
$$Sm/l_2$$
 (cat.) Ar COOMe CH_3 $COOMe$ CH_3 $COOMe$ CH_3 $COOMe$ $COOMe$

Carbolithiation of vinyl pyridines as a route to 7-azaindoles

pp 1935-1938

Bertrand Cottineau and Donal F. O'Shea*

$$\begin{array}{c|c} R^{1} & & \\ \hline N & NH & \\ \hline COt-Bu & & \\ \hline \end{array} \begin{array}{c} R^{2} & \text{(ii) DMF or } \\ \hline N & \\ \hline \end{array} \begin{array}{c} R^{3}CN \\ \hline \text{(iii) HCl (aq)} \end{array} \begin{array}{c} R^{2} \\ \hline N & \\ \hline \end{array} \begin{array}{c} R^{2} \\ \hline \end{array}$$

Stereoselective synthesis of (-)-microcarpalide

pp 1939-1941

Subhash P. Chavan* and Cherukupally Praveen

A highly convergent and efficient synthesis of (–)-microcarpalide, a 10-membered lactone displaying remarkable microfilament disrupting activity is described. Ring-closing metathesis and Sharpless asymmetric dihydroxylations are the key steps. Our strategy highlights the application of novel hydroxy lactone precursors for the stereoselective synthesis of (–)-microcarpalide.

Enantioselective Morita-Baylis-Hillman (MBH) reaction promoted by a heterobimetallic complex with a Lewis base

pp 1943-1946

Katsuya Matsui, Shinobu Takizawa and Hiroaki Sasai*

OTHER CONTENTS

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*Corresponding author

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