

Tetrahedron Letters Vol. 46, No. 4, 2005

Contents

COMMUNICATIONS

Enantioselective total synthesis of antiangeogenic pentaketide dimers, epoxyquinols A and B, through an asymmetric aldol approach to their common monomeric precursor

pp 547-549

Shigefumi Kuwahara* and Sunao Imada

Synthesis of a water-soluble molecular tweezer and a recognition study in an aqueous media

pp 551-553

Hisao Nemoto,* Tomoaki Kawano, Nobuo Ueji, Nobutaka Sakamoto, Takaaki Araki, Norikazu Miyoshi, Ichiro Suzuki and Masayuki Shibuya

$$\begin{array}{c} \text{NH}_2\\ \text{O}\\ \text{O}\\ \text{O}\\ \text{COCH}_2\text{CO}-\text{N}\\ \text{NH}_2\\ \text{O}\\ \text{COCH}_2\text{CO}-\text{N}\\ \text{NH}\\ \text{NH}_2\\ \text{O}\\ \text{COCH}_2\text{CO}-\text{N}\\ \text{NH}\\ \text{NH}_2\\ \text{O}\\ \text{O}\\ \text{COCH}_2\text{CO}-\text{N}\\ \text{NH}\\ \text$$

(i)+

Remarkable effects of titanium tetrachloride in diastereoselective aza Diels-Alder cycloaddition: synthesis of (S)-piperazic acid

pp 555-558

Kazuishi Makino, Yoshiaki Henmi, Makiko Terasawa, Osamu Hara and Yasumasa Hamada*

Desmethylubiquinone Q2 from the Far-Eastern ascidian Aplidium glabrum: structure and synthesis

pp 559-562

Larisa K. Shubina, Sergey N. Fedorov, Oleg S. Radchenko, Nadezhda N. Balaneva, Sophia A. Kolesnikova, Pavel S. Dmitrenok, Ann Bode, Zigang Dong and Valentin A. Stonik*

Synthesis of 1,3-enynes via Suzuki-type reaction of vinylic tellurides and potassium alkynyltrifluoroborate salts

pp 563-567

Hélio A. Stefani,* Rodrigo Cella, Felipe A. Dörr, Claudio M. P. Pereira, Gilson Zeni and Marlito Gomes, Jr.

R TeBu-
$$n$$
 + R¹ BF₃K $Pd(acac)_2$, CuI Et₃N, MeOH reflux, 8h R R = alkyl, aryl, alkenyl R¹ = C₆H₅, C₈H₁₇, C₄H₉, CH₂OCH₃

Synthesis of enantiopure (S)-(E)-1-haloalk-1-ene-3-amines with total or very high diastereoselectivity by halomethylenation of α -amino aldehydes promoted by $CrCl_2$

José M. Concellón,* Pablo L. Bernad and Carmen Méjica

$$R \xrightarrow{O}_{\text{NBn}_2} + \text{CHX}_3 \xrightarrow{\text{CrY}_2, \text{THF}} R \xrightarrow{\text{NBn}_2} X$$

A new entry to functionalized cycloalkylamines: diastereoselective intramolecular amidoalkylation of N,O-acetal TMS ether possessing allylsilane

pp 573–575

Jong-Wha Jung, Dong-Yun Shin, Seung-Yong Seo, Seok-Ho Kim, Seung-Mann Paek, Jae-Kyung Jung and Young-Ger Suh*

OTMS
$$R_{1} \xrightarrow{N} X \xrightarrow{TMS} TMS \xrightarrow{R_{1} \xrightarrow{N} X} X \xrightarrow{TMS} TMS \xrightarrow{N} R_{1} \xrightarrow{CO_{2}R_{2}} X = C, O, N, SO_{2}$$

$$X = C, O, N, SO_{2}$$

$$N,O\text{-acetal TMS ether}$$

$$CO_{2}R_{2}$$

$$Cyclopentylamine analogs up to > 20:1$$

Cross-metathesis of 1,3-dienes with electron-deficient olefins

pp 577-580

Purnama Dewi, Stefan Randl and Siegfried Blechert*

Cross-metathesis reactions between 1,3-dienes and electron-deficient olefins have been studied. Using 1,3-dienes possessing a trisubstituted internal double bond and methyl vinyl ketone as the coupling partner, the cross products were obtained in moderate to good yields.

Suzuki coupling reaction for the solid-phase preparation of 5-substituted nicotinic acid derivatives

pp 581-585

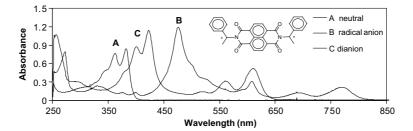
Joan-Carles Fernàndez,* Laia Solé-Feu, Dolors Fernández-Forner, Natalia de la Figuera, Pilar Forns and Fernando Albericio

The application of the Suzuki coupling reaction to the preparation of small combinatorial libraries using 5-bromonicotinic acid as a scaffold onto three different types of solid support (Wang, Rink, and BAL resin) is described.

Chiral imides as potential chiroptical switches: synthesis and optical properties

pp 587-590

Erin K. Todd, Sheng Wang, Xinhua Wan and Zhi Yuan Wang*



On the mechanism of a double ring-closing metathesis reaction

pp 591-594

Debra J. Wallace

A detailed study of the steps involved in the double ring-closing metathesis reaction of 2 to 3 has been carried out. Both the selectivity and mechanism were affected by choice of catalyst.

Catalytic asymmetric hydrogenation of aromatic ketones in room temperature ionic liquids

pp 595-597

Helen L. Ngo, Aiguo Hu and Wenbin Lin*

The first example of magnesium carbenoid 1,3-CH insertion reaction: a novel method for synthesis of cyclopropanes from 1-chloroalkyl phenyl sulfoxides in high yields

pp 599-602

Tsuyoshi Satoh,* Jun Musashi and Atsushi Kondo

Iron-catalyzed 1,6-addition of aryl Grignard reagents to 2,4-dienoates and -dienamides

pp 603-606

Kohki Fukuhara and Hirokazu Urabe*

A semisynthesis of isepamicin by fragmentation method

pp 607-609

Man Sik Moon, Sook Jin Jun, So Ha Lee, Chan Seong Cheong,* Kwan Soo Kim and Byung Suk Lee

p 373 377

Synthesis of a new tricyclic tetraazatriacetic acid as ligand for gadolinium(III)

pp 611-613

Fabienne Dioury, Emmanuelle Guéné, Aurore Di Scala-Roulleau, Clotilde Ferroud,* Alain Guy and Marc Port

$$\overset{\text{HCl}}{\underset{\text{NH}_2}{\bigvee}} \Longrightarrow \overset{\text{SO}_2\text{Ar}}{\underset{\text{NH}}{\bigvee}} \overset{\text{HO}_2\text{C}}{\underset{\text{N}}{\bigvee}} \overset{\text{N}}{\underset{\text{N}}{\bigvee}} \overset{\text{CO}_2\text{H}}{\underset{\text{CO}_2\text{H}}{\bigvee}} \overset{\text{NO}_2}{\underset{\text{CO}_2\text{H}}{\bigvee}}$$

Conversion of isomeric 2:3 adducts (aminoacid–formaldehyde) to *N*-acyl-pseudoprolines derivatives Jimmy Sélambarom,* Jacqueline Smadja and André A. Pavia

pp 615-617

Ring-opening of lactones with enolate nucleophiles: a simple access to functionalised β -ketoesters, β,δ -diketoesters and β -ketosulfoxides

pp 619-622

Steve Lanners, Naïma Khiri, Guy Solladié and Gilles Hanquet*

Amberlyst- 15° -promoted efficient 2-halogenation of 1,3-keto-esters and cyclic ketones using N-halosuccinimides

pp 623–626

H. M. Meshram,* P. N. Reddy, K. Sadashiv and J. S. Yadav

$$R^{1}$$
 O
 R^{2}
 $+$
 N
 N
 $X=Br$ CL I

Tricoordinate diphenylboron cation prepared in solution

pp 627-630

Md. Khabir Uddin, Yoshiya Nagano, Ryoji Fujiyama, Syun-ichi Kiyooka, Mizue Fujio* and Yuho Tsuno

$$(C_6H_5)_2BCI \xrightarrow{\begin{array}{c} 1 \text{ eq. Py} \\ CD_2CI_2, \text{ rt} \\ \text{under Ar} \end{array}} (C_6H_5)_2B \xrightarrow{Py} \xrightarrow{\begin{array}{c} SbCI_5 \text{ in } CH_2CI_2 \\ CI \end{array}} \xrightarrow{\begin{array}{c} CC_6H_5)_2B - Py \\ CI \end{array}} \xrightarrow{\begin{array}{c} CC_6H_5} \xrightarrow{\begin{array}{c} CC_6H_$$

Mitsunobu alkylation of imidazole: a convenient route to chiral ionic liquids

pp 631-633

Eun Jin Kim, Soo Y. Ko* and Edward K. Dziadulewicz

Imidazolium salts as phase transfer catalysts for the dialkylation and cycloalkylation of active methylene compounds

pp 635–638

Sengodagounder Muthusamy* and Boopathy Gnanaprakasam

$$R^{1} \xrightarrow{Q} R^{2} + Br \xrightarrow{Q} R^{1} \xrightarrow{PTC, K_{2}CO_{3}} R^{1} \xrightarrow{Q} R^{2}$$

$$n = 1,3 \qquad PTC = \begin{bmatrix} R^{3} & + & N - R^{4} \\ N & N - R^{4} \end{bmatrix} X^{-}$$

The efficient synthesis of 1,1-disubstituted derivatives and the construction of cyclopropane and cyclopentane ring systems via dialkylation and cycloalkylation reactions of active methylene compounds using imidazolium salts as phase transfer catalyst is described.

First example of the C-alkylation of indoles with Baylis-Hillman acetates

pp 639-641

J. S. Yadav,* B. V. Subba Reddy, A. K. Basak, A. V. Narsaiah, A. Prabhakar and B. Jagadeesh

p 027-030

Oxetane synthesis via cyclisation of aryl sulfonate esters on polystyrene and PEG polymeric supports Jonathan M. Behrendt, Kason Bala, Peter Golding and Helen C. Hailes*

pp 643-645

Synthesis and DNA binding properties of pyrrole amino acid-containing peptides

pp 647-651

Tushar Kanti Chakraborty,* Bajjuri Krishna Mohan, Muthaiah Gnanamani and Souvik Maiti*

$$H_3$$
N H_3 N H_4 O H_5 O H_7 O H_8 O

The synthesis of amides and dipeptides from unprotected amino acids by a simultaneous protection—activation strategy using boron trifluoride diethyl etherate

pp 653–656

S. H. van Leeuwen, P. J. L. M. Quaedflieg, Q. B. Broxterman, Y. Milhajlovic and R. M. J. Liskamp*

$$R^2 = Bn$$
, $\dot{F}Bu$
 $R^2 = Bn$, $\dot{F}Bu$

Three-component reactions of polynitromethanes with alkynes. The first synthesis of *gem*-dinitroaziridines

pp 657-659

Ekaterina M. Budynina, Elena B. Averina, Olga A. Ivanova, Tamara S. Kuznetsova* and Nikolai S. Zefirov

$$XC(NO_2)_3 \xrightarrow{\begin{array}{c} CH_2N_2, X=H \\ Path 1 \\ \end{array}} \begin{array}{c} O_2N \\ NO_2 \\ RO \end{array} \begin{array}{c} O_2N \\ O_2 \end{array} \begin{array}{c} NO_2 \\ RO \end{array} \begin{array}{c} O_2N \\ O_2 \end{array} \begin{array}{c} O_2N \\ O_2N \\ O_2N \end{array} \begin{array}{c} O_2N \\ O_2N \\ O_2N \\ O_2N \end{array} \begin{array}{c} O_2N \\ O_2N$$

Three-component one-pot reactions of tetranitro- and bromotrinitromethanes with alkoxyacetylenes, mediated by diazomethane or bicyclobutylidene, yielding *gem*-dinitroaziridines via sequential electrophile transfer followed by [3+2]-cycloaddition, have been studied. A series of novel *N*-alkoxy-2,2-dinitroaziridines have been prepared by these reactions.

Palladium-imidazole derivatives as highly active catalysts for Heck reactions

pp 661-663

K. Rajender Reddy* and G. Gopi Krishna

R + R' X
$$\frac{\text{Pd}(\text{dba})_2/\text{Ligand}}{\text{solvent, base}}$$
 R | Ligand | Br N | Br N | 1 R = n-butyl | 2 R = benzyl | 3 R = benzoyl | 4 R = tosyl

Synthesis of diaryl selenides using the in situ reagent SeCl₂

pp 665-669

Sanjio S. Zade, Snigdha Panda, Harkesh B. Singh* and Gotthelf Wolmershäuser



Highly efficient Beckmann rearrangement and dehydration of oximes

pp 671-674

Dongmei Li, Feng Shi, Shu Guo and Youquan Deng*

Oxidative cleavage of C-Si bonds in polyhydroxylated silacyclopentanes

pp 675-679

Yannick Landais* and Cédrick Mahieux

Synthesis of α - and/or γ -benzoyloxy- α , β -enones from α -halo- α , β -enones

pp 681-685

Yujiro Hayashi,* Mitsuru Shoji and Satoshi Kishida

Sodium benzoate reacts with α -halo- α , β -enones in the presence of tetrabutylammonium hydrogensulfate or 18-Crown-6 to afford α - and/or γ -benzoyloxylated α , β -enones in good yield. The α/γ and γ/γ' selectivities are dependent on the substrate and reagent.

Target-induced selection of ligands from a dynamic combinatorial library of mono- and bi-conjugated oligonucleotides

pp 687-690

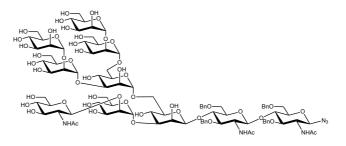
Anthony Bugaut, Katell Bathany, Jean-Marie Schmitter and Bernard Rayner*

A dynamic combinatorial chemistry (DCC) approach has been used to identify a conjugated oligonucleotide with an increased affinity for its complementary target. The result obtained demonstrates positional selection using DCC.

Synthesis of an N-glycan decasaccharide of the hybrid type

pp 691-694

Xaver Schratt and Carlo Unverzagt*



Derivatives of pentamidine designed to target the Leishmania lipophosphoglycan

pp 695-698

Kari L. Kramp, Kristin DeWitt, Jason W. Flora, David C. Muddiman, Kelli M. Slunt* and Todd A. Houston*

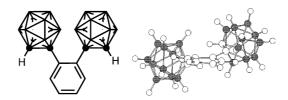
Compound 7, based on pentamidine, was designed to increase the parent compound's affinity for the *Leishmania* cell surface. The leishmanicidal activity of 7 is similar to that of the nonboronated diamine 4 and appears to be more effective at lower concentrations.



Distorted benzene bearing two bulky substituents on adjacent positions: structure of 1,2-bis(1,2-dicarba-*closo*-dodecaboran-1-yl)benzene

pp 699-702

Yasuyuki Endo,* Chalermkiat Songkram, Kiminori Ohta, Piotr Kaszynski and Kentaro Yamaguchi



Synthesis and structural X-ray analysis of 1,2-bis(o-carboranyl)benzene were performed to examine the steric effects of the two extremely bulky o-carborane cages at adjacent positions on the planarity of the benzene ring.

Homo Diels-Alder chemistry in the synthesis of portulal: construction of the functionalized hydroazulene core

pp 703-706

Bin Ma and John K. Snyder*

(i)+

Some reactions of persistent benzofuranone radicals related to the 'old' diazonamide structure Philip Magnus,* Jennifer D. Venable (nee Kreisberg), Lan Shen and Vince Lynch

pp 707-710

A facile synthesis of 1,4-benzodiazepine derivatives via Ugi four-component condensation Stefano Marcaccini,* Michele Miliciani and Roberto Pepino

pp 711-713



Novel regiochemistry in the aqueous singlet oxygen ene reactions of carboxylic acid salts: a comparison of substrate structure

pp 715-718

Kristina L. Stensaas,* Anisha Bajaj and Akram Al-Turk

The singlet oxygen photooxidations of several carboxylic acid salts were conducted in deuterated water. We attribute the observed regiochemistry to stabilizing hydrogen bonding interactions between the solvent and the perepoxide, which leads to the major ene product.

OTHER CONTENTS

Contributors to this issue Instructions to contributors

p I pp III–VI

*Corresponding author

** Supplementary data available via ScienceDirect

COVER

A new enantioselective total synthesis of antiangeogenic pentaketide dimers, epoxyquinols A and B, was accomplished by oxidative dimerization of a monomeric pentaketide precursor prepared from a known oxazolidinone derivative in 22% overall yield by an operationally simple thirteen-step sequence including the Evans asymmetric aldol reaction as the source of chirality. *Tetrahedron Letters* **2005**, *46*, 547–549.

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