Rhodium-catalyzed 1,4-addition reactions of diboron reagents to electron deficient olefins

Tetrahedron Letters 43 (2002) 2323

George W. Kabalka,* Bhaskar C. Das and Sasmita Das

Departments of Chemistry and Radiology, The University of Tennessee, Knoxville, TN 37916-1600, USA

The 1,4-addition of bis(pinacolato)diboron and bis(neopentyl glycolato)diboron to α,β -unsaturated ketones, esters, nitriles, and aldehydes was developed using a rhodium catalyst.

Homocoupling of aryl iodides and bromides promoted by sulfur-containing palladacycles

Tetrahedron Letters 43 (2002) 2327

Priscila B. Silveira, Vanusa R. Lando, Jairton Dupont* and Adriano L. Monteiro*

Laboratory of Molecular Catalysis, IQ, UFRGS. Av. Bento Gonçalves, 9500 Porto Alegre, 91501-970 RS Brazil

$$\begin{array}{c|c}
& & & & \\
& & & \\
& & & \\
R
\end{array}$$

$$\begin{array}{c}
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
& & \\
\end{array}$$

$$\begin{array}{c}
& & \\
& \\
& \\
& \\
& \\
\end{array}$$

$$\begin{array}{c}
& \\
& \\
& \\
& \\
\end{array}$$

$$\begin{array}{c}
& \\
& \\
& \\
\end{array}$$

$$\begin{array}{c}
& \\
& \\
& \\
\end{array}$$

$$\begin{array}{c}
\\
\end{array}$$

$$\begin{array}{c}
& \\
\end{array}$$

$$\begin{array}{c}
\\
\end{array}$$

$$\begin{array}$$

 $X = I, Br; R = H, Me, MeO, Ac, CF_3$

First asymmetric synthesis of (R)-desmethylsibutramine

Tetrahedron Letters 43 (2002) 2331

Dhileepkumar Krishnamurthy,* Zhengxu Han, Stephen A. Wald and Chris H. Senanayake*

Chemical Process Research and Development, Sepracor Inc., 111 Locke Drive, Marlborough, MA 01752, USA

A catalytic enantioselective addition of iBuLi to aldimine is used as the key step in the asymmetric synthesis of (R)-desmethylsibutramine, a single enantiomer version of a pharmacologically active metabolite of the anti-obesity drug sibutramine.

Synthesis of new chiral imidazolidine disulfides derived from L-cystine and their application in the enantioselective addition of diethylzinc to aldehydes

Antonio L. Braga,* Fabrício Vargas, Claudio C. Silveira and Leandro H. de Andrade

Departamento de Química, Universidade Federal de Santa Maria, Santa Maria, RS, 97105-900, Brazil Tetrahedron Letters 43 (2002) 2335

Ytterbium(III) triflate-catalyzed electrophilic cyclization of glyoxalate-derived unsaturated imines

Tetrahedron Letters 43 (2002) 2339

Qiang Jia,^a Wenhua Xie,^a Wei Zhang,^a Adam Janczuk,^a Sanzhong Luo,^b Baolian Zhang,^b Jin Pei Cheng,^b Mohamad B. Ksebati^a and Peng G. Wang^{a,*}

^aDepartment of Chemistry, Wayne State University, Detroit, MI 48202, USA

^bDepartment of Chemistry, Nankai University, Tianjin 300071, PR China

An efficient approach for solid-phase synthesis of peptidomimetics based on 4-imidazolidinones

Tetrahedron Letters 43 (2002) 2343

Markéta Rinnová, Adel Nefzi and Richard A. Houghten*

Torrey Pines Institute for Molecular Studies, 3550 General Atomics Court, San Diego, CA 92121, USA

Intramolecular 4+3 cycloadditions. A cyclohexenyl cation, its halogenated congener and a quasi-Favorskii rearrangement

Tetrahedron Letters 43 (2002) 2347

Michael Harmata,* Gary Bohnert, Laszlo Kürti and Charles L. Barnes

Department of Chemistry, University of Missouri-Columbia, Columbia, MO 65211, USA

HO
$$X$$
 Lewis X X LAH $X = Br$ $X = Br$

Integrastatins: structure and HIV-1 integrase inhibitory activities of two novel racemic tetracyclic aromatic heterocycles produced by two fungal species

Tetrahedron Letters 43 (2002) 2351

Sheo B. Singh, a,* Deborah L. Zink, Donette S. Quamina, Fernando Pelaez, Ana Teran, Peter Felock and Daria J. Hazuda

^aMerck Research Laboratories, RY80Y-355, PO Box 2000, Rahway, NJ 07065, USA

^bCIBE, Merck Sharp & Dohme de Espana, S. A. Josefa Valcárcel 38, 28027 Madrid, Spain

^cMerck Research Laboratories, West Point, PA 19486, USA

Tetrahedron Letters 43 (2002) 2355

The first asymmetric synthesis of (2S)- and (2R)-amino-3,3-dimethoxypropanoic acid

Duane E. DeMong and Robert M. Williams*

Department of Chemistry, Colorado State University, Fort Collins, CO 80523, USA

Preparation, structure, and chemistry of phosphorane-derived phenyliodonium sulfonates

Tetrahedron Letters 43 (2002) 2359

Viktor V. Zhdankin,^{a,*} Olena Maydanovych,^a Jon Herschbach,^a Jessica Bruno,^a Elena D. Matveeva^b and Nikolai S. Zefirov^b

^aDepartment of Chemistry, University of Minnesota Duluth, Duluth, MN 55812, USA

^bDepartment of Chemistry, Moscow State University, Moscow 119899, Russia

$$Ph_{3}P = C + PhI(OTf)_{2} \cdot 2Py$$

$$CH_{2}Cl_{2}, r.t., 3h$$

$$Ph_{3}P = C + PhI(OH)OTs$$

$$CH_{2}Cl_{2}, r.t., 12h$$

$$Ph_{3}P = C + PhI(OH)OTs$$

$$CH_{2}Cl_{2}, r.t., 12h$$

$$Ph_{3}P = C + PhI(OH)OTs$$

$$Ph_{3}P = C + PhI(OH)OTs$$

$$Ph_{4}P = C + PhI(OH)OTs$$

$$Ph_{5}P = C + PhI(OH)OTs$$

$$Ph_{5}P = C + PhI(OH)OTs$$

$$Ph_{7}P = C + PhI(OH)OTs$$

$$Ph_{7}P = C + PhI(OH)OTs$$

$$Ph_{8}P = C + PhI(OH)OTs$$

$$Ph_{9}P = C +$$

First observation of non-covalent complexes for a tannin-protein interaction model investigated by electrospray ionisation mass spectroscopy

Sarah Vergé,^a Tristan Richard,^a Serge Moreau,^b Suzanne Richelme-David,^c Joseph Vercauteren,^a Jean-Claude Promé^d and Jean-Pierre Monti^a,*

^aGESNIT EA 491, Faculté des Sciences Pharmaceutiques, Université de Bordeaux 2, 146 rue Léo Saignat, 33076 Bordeaux cedex, France

^bLaboratoire de Biophysique Moléculaire, INSERM U386, Université de Bordeaux 2, Bordeaux, France

^cService de Spectrométrie de Masse, FR 1744, Université Paul Sabatier, Toulouse, France ^dLaboratoire de Synthèse et Physicochimie des Molécules d'Intérêt Biologique, Université Paul Sabatier, Toulouse, France Tetrahedron Letters 43 (2002) 2363

The constitution of micrococcin P1: the Bycroft-Gowland hypothesis confirmed

Tetrahedron Letters 43 (2002) 2367

Bernard Fenet, a Fabrice Pierre, Eric Cundliffe and Marco A. Ciufolinib,*

^aLaboratoire de Résonance Magnétique Nucléaire-UMR CNRS 5012, Université Claude Bernard Lyon 1 et Ecole Supérieure de Chimie, Physique, Electronique de Lyon, 43, Bd du 11 Novembre 1918, 69622 Villeurbanne cédex. France

bLaboratoire de Synthèse et Méthodologie Organique (LSMO), UMR CNRS 5078, Université Claude Bernard Lyon 1 et Ecole Supérieure de Chimie, Physique, Electronique de Lyon, 43, Bd du 11 Novembre 1918, 69622 Villeurbanne cédex, France

^cDepartment of Biochemistry, University of Leicester, Leicester LE1 7RH, UK

Extensive 2D NMR studies confirm the hitherto unproved Bycroft-Gowland structural hypothesis for micrococcin P1.

Diisobutylaluminum-promoted secondary rim selective de-O-methylation of permethylated cyclodextrins

Bérengère du Roizel, Jean-Pierre Baltaze and Pierre Sinaÿ* Ecole Normale Supérieure, Département de Chimie, UMR CNRS 8642, 24 rue Lhomond, 75231 Paris Cedex 05, France

These selectively deprotected α - and β -cyclodextrins (CDs) have been prepared in one step in 55% yield from the corresponding fully methylated CDs.

Tetrahedron Letters 43 (2002) 2371

Synthesis of visoltricin and fungerin: imidazole derivatives of *Fusarium* sp.

Tetrahedron Letters 43 (2002) 2375

Johann M. Rieder and Johann Lepschy*

Bayerische Landesanstalt für Bodenkultur und Pflanzenbau, Vöttingerstr. 38, 85354 Freising, Germany

The imidazoles 1 and 2 were synthesized. Comparison of MS data showed that the naturally occurring isomer is fungerin 2. Visoltricin (structure originally assigned as 1) is identical to fungerin.

Lycopanerols H, two high molecular weight ether lipids from *Botryococcus braunii* comprising an α-tocopherol unit

Tetrahedron Letters 43 (2002) 2377

Pierre Metzger^{a,*} and Marie-Noëlle Rager^{b,*}

^aCNRS UMR 7573, Ecole Nationale Supérieure de Chimie de Paris, 11 Rue P. et M. Curie, 75231 Paris cedex 05, France ^bCNRS UMR 7576, Ecole Nationale Supérieure de Chimie de Paris, 11 Rue P. et M. Curie, 75231 Paris cedex 05, France

Two ether lipids, C_{151} and C_{153} lycopanerols H, were isolated from the alga *Botryococcus braunii* and their structures determined.

Asymmetric conjugate addition reactions of polymer-supported highly enantioenriched β -(trimethylsilyl)ethyl sulfoxides

Tetrahedron Letters 43 (2002) 2381

Shuichi Nakamura, Youhei Uchiyama, Satoshi Ishikawa, Ryuta Fukinbara, Yoshihiko Watanabe and Takeshi Toru*

Department of Applied Chemistry, Nagoya Institute of Technology, Gokiso, Showa-ku, Nagoya 466-8555, Japan

Total synthesis of (-)-vallesamidine

Tetrahedron Letters 43 (2002) 2385

Hideo Tanino, Kazuhisa Fukuishi, Mina Ushiyama and Kunisuke Okada*

Faculty of Pharmacy, Meijo University, Tenpaku, Nagoya 468-8503, Japan

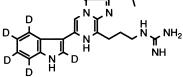
Biosynthesis of luciferin in the sea firefly, *Cypridina hilgendorfii*: L-tryptophan is a component in Cypridina luciferin

Tetrahedron Letters 43 (2002) 2389

Yuichi Oba, a,* Shin-ichi Kato, Makoto Ojika and Satoshi Inouyeb

^aGraduate School of Bioagricultural Sciences, Nagoya University, Chikusa-ku, Nagoya 464-8601, Japan ^bYokohama Research Center, Chisso Co., 5-1 Okawa, Kanazawa-ku, Yokohama 236-8605, Japan HOOC, NH₂

Cypridina hilgendorfii
de novo synthesis



Deuterium-labeled L-tryptophan

[D₅]-Cypridina luciferin

Regioselective silylation of C-2 hydroxyl group of α -cyclodextrin dependent on reaction temperature

Tetrahedron Letters 43 (2002) 2393

Katsunori Teranishi* and Fumiko Ueno

Faculty of Bioresources, Mie University, 1515 Kamihama, Tsu, Mie 514-8507, Japan

Generation and regioselective reactions of α,α -bis(silyl)-substituted allylcopper reagents—synthesis of 1,1-disilylalkenes

Tetrahedron Letters 43 (2002) 2399

Junichi Kondo, Atsushi Inoue, Hiroshi Shinokubo and Koichiro Oshima*

Department of Material Chemistry, Graduate School of Engineering, Kyoto University, Sakyo-ku, Kyoto 606-8501, Japan

$$Si \rightarrow Si$$
 $Cl \quad Cl \quad Cl \quad Si = Ph_2MeSi$

MgBr
 $CuCN•2LiCl$
 $Si \rightarrow Si$
 $Cu \rightarrow Si$
 $Cu \rightarrow Si$
 $Cu \rightarrow Si$
 $Si \rightarrow Si$
 $Cu \rightarrow Si$
 $Si \rightarrow$

An intriguing effect of Yb(OTf)₃-TMSCl in the halogenation of 1,1-disubstituted alkenes by NXS: selective synthesis of allyl halides

Tetrahedron Letters 43 (2002) 2403

Masamichi Yamanaka, Mitsuhiro Arisawa, Atsushi Nishida and Masako Nakagawa*

Graduate School of Pharmaceutical Sciences, Chiba University, Yayoi-cho 1-33, Inage-ku, Chiba 263-8522, Japan

Synthesis of huperzine intermediates via Mn(III)-mediated radical cyclization

Tetrahedron Letters 43 (2002) 2407

Ihl Young Choi Lee, a,* Myung Hee Jung, Hyo Won Leeb and Joon Youn Yangb

^aKorea Research Institute of Chemical Technology, Taejon 305-600, South Korea

^bDepartment of Chemistry, Chungbuk National University, Cheongju, Chungbuk 361-763, South Korea

Key intermediates of huperzine were obtained via Mn(III)-mediated oxidative radical cyclization of allylic derivatives from 6-oxotetrahydroquinoline carboxylic esters to the corresponding bicyclic compounds.

$$R_1$$
 R_2
 R_2
 R_1
 R_2
 R_2
 R_3
 R_4
 R_2
 R_4
 R_2
 R_4
 R_2
 R_4
 R_2
 R_4
 R_4
 R_5
 R_6
 R_7
 R_8
 R_9
 R_9

Facile synthesis of enantiopure (-)-TAN1251A

Tetrahedron Letters 43 (2002) 2411

Hirotake Mizutani, Jun Takayama, Yukio Soeda and Toshio Honda*

Faculty of Pharmaceutical Sciences, Hoshi University, Ebara 2-4-41, Shinagawa, Tokyo 142-8501, Japan

Formal total synthesis of (–)-TAN1251A was achieved via a carbon–nitrogen bond formation by the use of aromatic oxidation with hypervalent iodine reagent as a key step.

Structure and antiviral properties of macrocaesalmin, a novel cassane furanoditerpenoid lactone from the seeds of *Caesalpinia minax* Hance

Ren-Wang Jiang,^a Paul Pui-Hay But,^b Shuang-Cheng Ma,^b Wen-Cai Ye,^c Siu-Pang Chan^a and Thomas C. W. Mak^{a,*}

^aDepartment of Chemistry, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong SAR, PR China

^bDepartment of Biology and Institute of Chinese Medicine, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong SAR, PR China

^cDepartment of Phytochemistry, China Pharmaceutical University, Nanjing 210009, PR China

H H

Tetrahedron Letters 43 (2002) 2415

January H OAc

macrocaesalmin

A novel cassane-type furanoditerpenoid lactone, named macrocaesalmin, possessing a ten-membered macrocyclic

1,5-diketone ring and an unprecedented cis B/D ring fusion mode, has been isolated from the seeds of Caesalpinia minax Hance.

Tetrahedron Letters 43 (2002) 2419

An improved deblocking agent for direct Fmoc solid-phase synthesis of peptide thioesters

Xianzhang Bu, Guiyang Xie, Chi Wang Law and Zhihong Guo*

Department of Chemistry and Biotechnology Research Institute, The Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong SAR, China

Full enzymatic synthesis of a precursor of bioactive pentapeptide OGP(10-14) in organic solvents

Tetrahedron Letters 43 (2002) 2423

Ping Liu,^a Gui-ling Tian,^a Kin-Sing Lee,^b Man-Sau Wong^b and Yun-hua Ye^{a,*}

^aThe Key Laboratory of Bioorganic Chemistry and Molecular Engineering, Ministry of Education, Department of Chemistry, Peking University, Beijing 100871 China

^bOpen Laboratory of Chirotechnology and Department of Applied Biology and Chemical Technology, The Hong Kong Polytechnic University, Kowloon, Hong Kong, China

Full enzymatic synthesis of a fragment of osteogenic growth peptide [OGP(10-14)] was achieved using proteases in organic solvents for the first time. The factors influencing the enzymatic synthesis of fragments OGP(10-14) were systematically studied.

An efficient method for synthesis of α -keto acid esters from terminal alkynes

Tetrahedron Letters 43 (2002) 2427

Lian-Sheng Li and Yu-Lin Wu*

State Key Laboratory of Bio-organic & Natural Products Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Road, Shanghai 200032, China

$$R = - R = - Br \frac{KMnO_4, NaHCO_3}{MeOH-H_2O, \sim 90\%} R = 0$$
OMe

The effect of size on the rate of an aminolysis reaction using a series of amine terminated PAMAM dendrimers

Tetrahedron Letters 43 (2002) 2431

John L. Burnett, Amy S. H. King, Ian K. Martin and Lance J. Twyman*

Chemistry Department, Dainton Building, University of Sheffield, Sheffield S3 7HF, UK

When compared to an equivalent amine concentration of ethylenediamine, the initial rate of a simple aminolysis reaction in water (at pH 8.5) was found to be greatly enhanced by the use of amine terminated PAMAM dendrimers.

Tetrahedron Letters 43 (2002) 2435

A stereoselective synthesis of the C13–C19 fragment of sanglifehrin A

Mukund K. Gurjar* and Siddhartha Ray Chaudhuri

National Chemical Laboratory, Pune 411008, India

$$\begin{array}{c|c} \text{OBz} \\ \text{O$$

Synthesis of diastereomerically pure 1,4,5-substituted-2-oxopiperazines on solid phase

Tetrahedron Letters 43 (2002) 2439

Nawaz M. Khan, Montserrat Cano and Shankar Balasubramanian*

Department of Chemistry, University of Cambridge, Lensfield Road, Cambridge CB2 1EW, UK

A route to the synthesis of previously unknown α -heteroatom substituted nitrones

Tetrahedron Letters 43 (2002) 2445

Maxim A. Voinov* and Igor A. Grigor'ev

Novosibirsk Institute of Organic Chemistry, Ave. akad. Lavrent'eva 9, 630090, Novosibirsk, Russia

Co-operative *ortho*-effects on the Wittig reaction. Interpretation of stereoselectivity in the reaction of *ortho*-halo-substituted benzaldehydes and benzylidenetriphenylphosphoranes

Tetrahedron Letters 43 (2002) 2449

Eoin C. Dunne, Éamonn J. Coyne, Peter B. Crowley and Declan G. Gilheany*

Chemistry Department, Conway Institute of Biomolecular and Biomedical Sciences, University College Dublin, Belfield, Dublin 4, Ireland

Beckmann rearrangement of ketoximes on solid metaboric acid: a simple and effective procedure

Tetrahedron Letters 43 (2002) 2455

Sosale Chandrasekhar* and Kovuru Gopalaiah

Department of Organic Chemistry, Indian Institute of Science, Bangalore 560 012, India

OH
$$R^{1} + (HBO_{2})_{n}^{*} \xrightarrow{\sim 140 \text{ °C}} R^{1}-NH-CO-R^{2} [nH_{3}BO_{3} \xrightarrow{\Delta} (HBO_{2})_{n}^{*} + nH_{2}O]$$

$$(72-96\%) * Metaboric acid*$$

The controlled assembly of modified cyclopeptide cages via scaffolded cyclooligomerisations

Tetrahedron Letters 43 (2002) 2459

Gerald Pattenden* and Toby Thompson

School of Chemistry, The University of Nottingham, University Park, Nottingham NG7 2RD, UK

Synthesis of cyclam-capped β -cyclodextrin-bonded silica particles for use as chiral stationary phases in capillary electrochromatography

Yinhan Gong,^a Guoping Xue,^b Yanqiao Xiang,^b Jerald S. Bradshaw,^b Milton L. Lee^b and Hian Kee Lee^{a,*}

^aDepartment of Chemistry, National University of Singapore, 3 Science Drive 3, Singapore 117543

^bDepartment of Chemistry and Biochemistry, Brigham Young University, Provo, UT 84602-5700, USA

Tetrahedron Letters 43 (2002) 2463

Synthesis and applications of propargyl pentafluorophenyl carbonate for peptide synthesis

Tetrahedron Letters 43 (2002) 2467

Ramakrishna G. Bhat, Erwan Kérourédan, Emmanuel Porhiel and Srinivasan Chandrasekaran*

Department of Organic Chemistry, Indian Institute of Science, Bangalore 560 012, India

Enantioselective lipase-catalyzed reactions of methyl pipecolinate: transesterification and N-acylation

Tetrahedron Letters 43 (2002) 2471

Arto Liljeblad, Jutta Lindborg, Anu Kanerva, Johanna Katajisto and Liisa T. Kanerva*

Laboratory of Synthetic Drug Chemistry and Department of Chemistry, University of Turku, Lemminkäisenkatu 2, FIN-20520 Turku, Finland

Rapid synthesis of high-loading resins using triple branched protected monomer for dendrimer synthesis

Tetrahedron Letters 43 (2002) 2475

Sylvain Lebreton,^a Nicholas Newcombe^b and Mark Bradley^{a,*}

^aDepartment of Chemistry, University of Southampton, Southampton, Hampshire SO17 1BJ, UK ^bAstraZeneca, Mereside, Alderley Park, Macclesfield, Cheshire SK10 4TG, UK

Resins with loading up to 96 nmol/bead were prepared by solid-phase dendrimerisation using a symmetrical $1\rightarrow 3$ C-branched isocyanate monomer.

A novel $1\rightarrow 3$ C-branched isocyanate monomer for resin amplification—a pseudo PS-PEG high-loading resin

Tetrahedron Letters 43 (2002) 2479

Sylvain Lebreton,^a Nicholas Newcombe^b and Mark Bradley^{a,*}

^aDepartment of Chemistry, University of Southampton, Southampton, Hampshire SO17 1BJ, UK ^bAstraZeneca, Mereside, Alderley Park, Macclesfield, Cheshire SK10 4TG, UK