

Tetrahedron Letters Vol. 45, No. 16, 2004

Contents

COMMUNICATIONS

Facile and rapid immobilization of copper(II) bis(oxazoline) catalysts on silica: application to Diels-Alder reactions, recycling, and unexpected effects on enantioselectivity

pp 3177-3180

Patrick O'Leary, Nico P. Krosveld, Krijn P. De Jong, Gerard van Koten and Robertus J. M. Klein Gebbink*

Double benzyne—furan cycloaddition and the assembly of 1,1'-binaphthyl and 1,1'-dinaphthyl ether systems

pp 3181-3184

Andreas S. Biland-Thommen, Gurubaran S. Raju, Julian Blagg, Andrew J. P. White and Anthony G. M. Barrett *

Asymmetric *O*-methylhalohydrin reaction of chiral *N*-enoyl-2-oxazolidinones: synthesis of N-protected pp 3185–3188 syn-β-methoxyphenylalanine, an unusual amino acid component of cyclomarins
Saumen Hajra* and Ananta Karmakar

Microwave promoted amination of 3-bromoisoxazoles

pp 3189-3191

Jane E. Moore, Daniel Spinks and Joseph P. A. Harrity*

Heating: 106 °C, 92 h, cat. DMAP, sealed vessel; No reaction. Microwave: MeCN, ps-BEMP, 200 °C, 15 min; 57%.

cine-Substitution of the nitro group in 2,4-disubstituted nitroarenes with carbanions of aryl alkyl sulfones

pp 3193-3195

Sylwia Błażej, Andrzej Kwast and Mieczysław Makosza*

$$\begin{array}{c} \text{NO}_2 \\ \text{CI} \\ \text{P} \\ \text{P} \\ \text{CI} \\ \text{P} \\ \text{SO}_2 \text{Ar} \\ \text{SO}_2 \text{Ar} \\ \text{SO}_2 \text{Ar} \\ \text{FR} \\ \text{P} \\ \text{Ar} \\ \text{P} \\ \text{Ar} \\ \text{P} \\ \text{NO}_2 \\ \text{P} \\ \text{R} \\$$

 $Y = CI, CF_3, CN; R = H, Me, Et; Z = CI, Ph, CH=CH_2, Ar = Ph, p-Tol$

Total synthesis of the proposed structure of 'brahol' and the structural revision

pp 3197-3201

Kana M. Sureshan, Tomomi Miyasou and Yutaka Watanabe*

Novel pyridine catalysed reactions of dimethyl acetylenedicarboxylate (DMAD) and arylmethylidenemalononitriles: a stereoselective synthesis of highly substituted buta-1,3-dienes Vijay Nair,* B. Rema Devi, N. Vidya, Rajeev S. Menon, N. Abhilash and Nigam P. Rath

pp 3203-3205

A pyridine catalysed addition of dimethyl acetylenedicarboxylate to various arylmethylidenemalononitriles to afford highly substituted 1,3-butadienes with complete stereoselectivity is described.

Studies on organophosphorus compounds: reactions of benzosuberones with 2,4-bis(*p*-methoxyphenyl)- pp 3207–3209 1,3,2,4-dithiadiphosphetane-2,4-disulfide (Lawesson's reagent)

Peesapati Venkateswarlu* and Srikanth Chitty Venkata

This paper describes the synthesis of phosphorus-containing compounds using Lawesson's reagent.

Rhodium-catalyzed carbonylation of 2-alkynylbenzylamine: a new route to the synthesis of benzazepinones

pp 3211-3213

Takanori Shiba, Da-Yang Zhou, Kiyotaka Onitsuka and Shigetoshi Takahashi*

$$\begin{array}{c} \text{NHR}^1 \\ \hline \\ \text{R}^2 + \text{CO} \\ \hline \\ \text{H}_2\text{O/NEt}_3 \\ \hline \\ \text{R}^1 = \text{H, Pr}^i, \text{Bu}^i, \text{Cy} \\ \hline \\ \text{R}^2 = \text{Me, Bu}^n, \text{Bu}^i, \text{Mes, 4-MeOC}_8\text{H}_4 \\ \hline \end{array}$$

The title reaction under water—gas shift reaction conditions gives 2,4-disubstituted-1,4-hydrobenz[c]azepin-3-one in a good yield.



Regio- and chemoselective transfer hydrogenation of quinolines catalyzed by a Cp*Ir complex

pp 3215-3217

Ken-ichi Fujita,* Chihiro Kitatsuji, Shigetoyo Furukawa and Ryohei Yamaguchi*

R = H, Me, NO_2 , CI, Br, CO_2H , and OMe

A practical procedure for the synthesis of multifunctional aldehydes through the Fukuyama reduction and elucidation of the reaction site and mechanism

pp 3219-3223

Mayumi Kimura and Masahiko Seki*

Reaction of indium ate complexes with allylic compounds. Controlling $S_N 2/S_N 2'$ selectivity by solvents

pp 3225-3228

Tsunehisa Hirashita,* Yousuke Hayashi, Kazuma Mitsui and Shuki Araki

An N,N'-diaryl urea based conjugated polymer model system

pp 3229-3232

Holly L. Ricks, Linda S. Shimizu, Mark D. Smith, Uwe H. F. Bunz and Ken D. Shimizu*

A mild and efficient new synthesis of aryl sulfones from boronic acids and sulfinic acid salts Christian Beaulieu,* Daniel Guay, Zhaoyin Wang and David A. Evans

pp 3233-3236

Copper-catalyzed cross-coupling of aryl iodides and aryl acetylenes using microwave heating Huan He^* and Yong-Jin Wu

pp 3237-3239

An efficient copper-catalyzed cross-coupling of aryl iodides with aryl acetylenes under microwave irradiation is described. The reaction proceeds under microwave heating with $10 \, \text{mol} \, \%$ CuI and $2 \, \text{equiv Cs}_2 \text{CO}_3$ in 43-87% yields.

A study of polychlorinated leucine derivatives: synthesis of (2S,4S)-5,5-dichloroleucine

pp 3241-3243

Ana Ardá, Carlos Jiménez and Jaime Rodríguez*

$$O = \bigcup_{\substack{N \\ Boc}} O = \bigcup_{\substack{CI \\ NH_2}} S = \bigcup_{\substack{S \\ NH_2}} S = \bigcup_{\substack{CO_2 \\ NH_2}} S = \bigcup_{\substack{S \\ NH_2}} S$$

The first total synthesis of (2S,4S)-5,5-dichloroleucine has been achieved in 11 steps from L-pyroglutamic acid.

A simple and efficient synthesis of an Asp-Gly dipeptide mimetic

pp 3245-3247

John M. Ndungu, Xuyuan Gu, Dustin E. Gross, Jinfa Ying and Victor J. Hruby*



New possibilities of 1,2,4-triazines functionalization: first examples of synthesis and structure of boron-containing 1,2,4-triazines

pp 3249-3252

Yuri Azev, Enno Lork, Thomas Duelcks and Detlef Gabel*

3-Alkylsulfonic derivatives of 1,2,4-triazine were synthesized and its reactions with various nucleophiles were investigated. Interaction of the alkylsulfonic derivatives with $Na_2B_{12}H_{11}SH$ led to the first boron-containing derivatives of as-triazine. The structures of the obtained compounds were investigated by NMR spectroscopy, mass spectrometry and X-ray analysis.

Thermally stable triaryl amino chromophores with high molecular hyperpolarizabilities

pp 3253-3256

Bryan K. Spraul, S. Suresh, Takafumi Sassa, M. Ángeles Herranz, Luis Echegoyen, Tatsuo Wada, Dvora Perahia and Dennis W. Smith, Jr.*

A = Electron Acceptors

The synthesis of a series of high temperature triaryl amino chromophores with unprecedented hyperpolarizability values for potential EO applications is described. 4-(*N*,*N*-di-*p*-anisylamino)phenyl donors are for the first time bridged to powerful acceptors such as tricyanovinyldihydrofuran via vinyl thiophene linkages.

Efficient one-pot preparation of 5-substituted-2-amino-1,3,4-oxadiazoles using resin-bound reagents

pp 3257-3260

Frank T. Coppo, Karen A. Evans,* Todd L. Graybill and George Burton

Determination of the absolute stereochemistry of lupane triterpenoids by fucofuranoside method and ORD spectrum

pp 3261-3263

Zhongze Ma,* Yoshio Hano, Feng Qiu, Yingjie Chen and Taro Nomura

A rapid catalytic asymmetric synthesis of 1,3,4-trisubstituted pyrrolidines

pp 3265-3268

Kevin M. Belyk,* Charlotte D. Beguin, Michael Palucki, Nelu Grinberg, Jimmy DaSilva, David Askin and Nobuyoshi Yasuda

TMS N OMe
$$\frac{1,3\text{-Dipolar Cycloaddition}}{\text{=-}co_2R_1}$$
 Rh-catalyzed 1,4-conjugate addition R_2 $\frac{R_1}{R_2}$ $\frac{R_2}{R_1}$ $\frac{R_1}{R_2}$ $\frac{R_2}{R_1}$ $\frac{R_1}{R_2}$ $\frac{R_2}{R_2}$ $\frac{R_1}{R_2}$ $\frac{R_1}{R_2}$ $\frac{R_2}{R_2}$ $\frac{R_1}{R_2}$ $\frac{R_1}{R_2}$ $\frac{R_2}{R_2}$ $\frac{R_1}{R_2}$ $\frac{R_2}{R_2}$ $\frac{R_1}{R_2}$ $\frac{R_2}{R_2}$ $\frac{R_1}{R_2}$ $\frac{R_2}{R_2}$ $\frac{R_2}{R_2}$

The asymmetric synthesis of 1,3,4-trisubstituted pyrrolidines was accomplished in two steps from readily available starting materials. A 1,3-dipolar cycloaddition of an azomethine ylide to a propiolate ester followed by a Rh-catalyzed asymmetric 1,4-arylation of the resulting pyrroline with an arylboronic acid provided the desired 1,3,4-trisubstituted pyrrolidine products in good to excellent enantioselectivities.



Studies directed toward the synthesis of the massileunicellins

pp 3269-3272

Yonghai Chai and Matthias C. McIntosh*

Synthesis of marine sponge alkaloid hachijodine B and a comment on the structure of ikimine B and on the absolute configuration of niphatesine D

pp 3273-3277

Stuart P. Romeril, Victor Lee* and Jack E. Baldwin

The syntheses of hachijodine B 1, the proposed structure of ikimine B 2 and niphatesine D 3 from S-citronellol are described.

New solid-supported phosphonate reagents for the synthesis of Z- α , β -unsaturated esters

pp 3279-3282

Sébastien L. X. Martina and Richard J. K. Taylor*

A novel approach to synthesis of tricyclic diterpenoid

pp 3283-3285

Xuanjia Peng, Xuegong She, Ying Su, Tongxin Wu and Xinfu Pan*

A novel approach has been found and the first total synthesis of (\pm) -Salvirecognine was accomplished by using it. In which intramolecular cyclization and Friedel–Crafts alkylation took place simultaneously to afford key intermediates for synthesis of aromatic tricyclic diterpenoids.

Convenient synthesis of a glycopeptide analogue having a complex type disialyl-undecasaccharide Naoki Yamamoto, Tohru Sakakibara and Yasuhiro Kajihara*

pp 3287-3290

Glycopeptide analogue having a complex type disialyl-undecasaccharide was synthesized by use of the chemoselective reaction.

A novel and highly selective conversion of alcohols, thiols, and silyl ethers to azides using the triphenylphosphine/2,3-dichloro-5,6-dicyanobenzoquinone(DDQ)/n-Bu₄NN₃ system

pp 3291-3294

Nasser Iranpoor,* Habib Firouzabadi,* Batool Akhlaghinia and Najmeh Nowrouzi

RY
$$\frac{\text{Ph}_3\text{P/DDQ/}n\text{-Bu}_4\text{NN}_3}{\text{CH}_2\text{Cl}_2\text{, rt}} \Rightarrow \text{RN}_3$$

$$Y = \text{OH, SH, OSiMe}_3$$

$$R = 1^{\circ}, 2^{\circ} \text{ and } 3^{\circ} \text{ alkyl}$$

Zirconium borohydride piperazine complex, an efficient, air and thermally stable reducing agent

pp 3295-3299

M. Tajbakhsh,* M. M. Lakouraj,* F. Shirini, S. Habibzadeh and A. Nikdoost

A zirconium borohydride piperazine complex $(Ppyz)Zr(BH_4)_2Cl_2$, obtained by the reaction of an ethereal solution of $ZrCl_4$ and LiBH₄ with piperazine, is a stable, selective and efficient reducing agent. $(Ppyz)Zr(BH_4)_2Cl_2$ reduces aldehydes, ketones, silylethers, α,β -unsaturated carbonyl compounds and esters. The reactions were performed in diethyl ether at room temperature or under reflux, and the yields of the corresponding alcohols were excellent. The selective reduction of aldehydes in the presence of ketones and complete regioselectivity in the reduction of α,β -unsaturated carbonyl groups were observed.

Silica gel-supported bis-cinchona alkaloid: a chiral catalyst for the heterogeneous asymmetric desymmetrization of *meso*-cyclic anhydrides

pp 3301-3304

Yu-Mi Song, Jin Seok Choi, Jung Woon Yang and Hogyu Han*

Synthesis of N-arylated sultams: palladium- and copper-catalyzed cross coupling of aryl halides with 1,4-butane and 1,3-propanesultams

pp 3305-3307

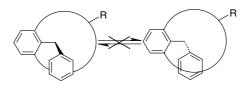
Dietrich Steinhuebel,* Michael Palucki, David Askin and Ulf Dolling

Palladium-catalyzed cross coupling of 1,4-butanesultam and 1,3-propanesultam with a variety of aryl halides was found to provide the desired products in 62–93% isolated yield using Xantphos as ligand. The Pd-catalyzed reaction is compared to the Cu-catalyzed reaction.

Synthesis and chiroptical properties of two new planar-chiral macrocycles

pp 3309-3311

Piotr Piatek, Jarosław Kalisiak and Janusz Jurczak*





Tishchenko reactions and Oppenauer oxidation reactions of aldehydes promoted by diisobutylaluminum hydride

pp 3313-3315

Yung-Son Hon,* Chun-Ping Chang and Ying-Chieh Wong

The aliphatic aldehydes react with $10 \, \text{mol} \, \%$ of Dibal-H in *n*-pentane to give the corresponding Tishchenko products in good to excellent yields. Contrary, the α -silyloxyaldehydes give the α -silyloxyketones via Oppenauer oxidation under similar condition.

A new 20-membered macrocyclic dilactam: an unexpected product of a tri-n-butyltin hydride-mediated radical reaction

pp 3317-3320

André A. G. Faraco, Maria Auxiliadôra F. Prado,* Rosemeire B. Alves, Renata F. P. Faraco, Ricardo J. Alves, José D. Souza-Filho, Eduardo C. Meurer and Marcos N. Eberlin

The Bu₃SnH-mediated reaction of methyl 3-*O*-allyl-4,6-di-*O*-benzyl-2-deoxy-2-(2-iodobenzoylamino)-α-D-glucopyranoside affords a 20-membered benzomacrodilactam. Its structure was deduced from ESI-MS and NMR analysis.



Access to cyclopropyl cations via carbene fragmentation

Robert A. Moss* and Gaosheng Chu

pp 3321-3326

OTHER CONTENTS

Contributors to this issue Instructions to contributors

p I pp III–V

*Corresponding author

(1) Supplementary data available via ScienceDirect



Full text of this journal is available, on-line from **ScienceDirect**. Visit **www.sciencedirect.com** for more information.



This journal is part of **ContentsDirect**, the *free* alerting service which sends tables of contents by e-mail for Elsevier books and journals. You can register for **ContentsDirect** online at: http://contentsdirect.elsevier.com

Indexed/Abstracted 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

