

Tetrahedron Letters Vol. 45, No. 39, 2004

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COMMUNICATIONS

Iodine-catalyzed synthesis of β-keto enol ethers

Rajesh S. Bhosale, Sidhanath V. Bhosale, Sheshanath V. Bhosale, Tianyu Wang and P. K. Zubaidha*



The use of iodine, as a catalyst for the synthesis of β -keto enol ethers at room temperature is reported.

Use of palladium-mediated allylic substitution reactions in the synthesis of 2,5-disubstituted-2,5-dihydrofurans pp 7189–7192

D. Bradley G. Williams* and Stephen J. Evans



Studies in multidrug resistance reversal: a rapid and stereoselective synthesis of the dihydroagarofuran ring system

Christopher A. Lee and Paul E. Floreancig*



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Total synthesis of (±)-manzacidin D

Christian Drouin, Jacqueline C. S. Woo, D. Bruce MacKay* and Roch M. A. Lavigne



Synthesis of β-hydroxy nitriles and 1,3-amino alcohols from epoxides using acetone cyanohydrin pp 7201–7204 as a LiCN precursor

James A. Ciaccio,* Michael Smrtka, William A. Maio and David Rucando



Microwave-assisted preparation of cyclic ureas from diamines in the presence of ZnO Yong Jin Kim and Rajender S. Varma^{*}

 $H_{2N} H_{2} + \frac{R^{1}}{R^{2}} H_{2} + \frac{R^{1}}{R^{2}} H_{2} + \frac{2 \operatorname{RO}, \operatorname{DMF}, \operatorname{MW 10min}}{(R^{1}, R^{2} = \operatorname{H or CH}_{2}; n = 0 \sim 1)} H_{N} + \frac{R^{1}}{(R^{2}, R^{2})} H_{2} + \frac{R^{2}}{(R^{2}, R^{2})} H_{2} + \frac{R^{2}}{(R^{2},$

A MW-assisted direct synthesis of cyclic ureas has been developed that proceeds expeditiously in the presence of ZnO thus shortening its reaction time; the process also eliminates the formation of byproducts when compared to the traditional methods involving conventional heating.

Ionic liquid media resulted in more efficient regio- and stereoselective aminohalogenation of cinnamic esters

pp 7209-7212

pp 7205–7208

S. R. S. Saibabu Kotti, Xin Xu, Yining Wang, Allan D. Headley* and Guigen Li*

Ar
$$O$$
 O H P -TsNCl₂ (1) 4Å MS, CuOTf (6 mol %)
[Bmim][BF₄]
2) Na₂SO₃(aq.) Ar O N H Ts
76-85 %

Simple deprotection of acetal type protecting groups under neutral conditions Hidayachi Miyaka * Takatsugu Taumura and Mitauru Sacaki

Hideyoshi Miyake,* Takatsugu Tsumura and Mitsuru Sasaki

R-OMOM, R-OTHP, R-OMEM
$$\xrightarrow{HO} OH$$

120 -160°C R-OH R' = H or Me

NCCH₃

anti/syn = 85/15

up to 84% ee

DABNTf-Pd(II) complex

CH₃CN

r.t.~60 °C

Heating acetals with ethylene glycol causes the deprotection of acetal type protecting groups.

Enantioselective catalysis of Claisen rearrangement by DABNTf-Pd(II) complex Katsuhiro Akiyama and Koichi Mikami*

Selective synthesis of dehydroamino acids from threonines

Kazuhiko Nakamura,* Tetsuya Isaka, Hiroaki Toshima and Masato Kodaka



a) m-^tBuOCO-C₆H₄-SeCN, Bu₃P / pyr. b) H₂O₂ / THF

A tandem radical cyclization route to tricyclo[4.3.*n*.0^{1,5}]alkanes Hee-Yoon Lee,* Sejin Lee, Byung Gyu Kim and Jong Soo Bahn

A facile route to tricyclo $[4.3.n.0^{1.5}]$ alkane skeletons from conjugated cyclic enones was developed through tandem free radical cyclization reaction sequence involving the cyclopropylmethyl radical mediated rearrangement. The scope and limitation of the reaction was investigated.



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Regio- and stereoselective transfer of *p*-toluenesulfonamido group from sulfur to carbon: preparation of aminoalcohol derivatives from allylalcohols Sadagopan Raghavan,* Ch. Naveen Kumar, K. A. Tony, S. Ramakrishna Reddy and K. Ravi Kumar



Stereospecific transformation of sulfilimines to sulfoxides and regio- and stereoselective transformation of alkenes to bromosulfonamides is disclosed.

An amine sulfonamide organocatalyst for promoting direct, highly enantioselective α-aminoxylation pp 7235–7238 reactions of aldehydes and ketones

Wei Wang,* Jian Wang, Hao Li and Lixin Liao



Oxazine formation by MsCl/Et₃N as a convenient tool for the stereochemical interconversion of the hydroxyl group in N-acetyl 1,3-aminoalcohols. Asymmetric synthesis of N-acetyl L-xylo- and L-arabino-phytosphingosines

Om V. Singh, Dorothy J. Kampf and Hyunsoo Han*



Catalysis of highly stereoselective Mannich-type reactions of ketones with α -imino esters by a pyrrolidine-sulfonamide. Synthesis of unnatural α -amino acids

Wei Wang,* Jian Wang and Hao Li

 $\begin{array}{c} O \\ R_1 \\ R_2 \\ EtO_2C \\ H \\ R_1 \\ R_2 \\ EtO_2C \\ H \\ R_1 \\ R_2 \\ EtO_2C \\ H \\ R_1 \\ R_2 \\ 2-20 \\ R_1 \\ R_2 \\ 1 \\ R_2 \\ 1 \\ R_2 \\ 1 \\ R_1 \\ R_1 \\ R_2 \\ 1 \\ R_1 \\$

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 $\mathbf{\Psi}$

pp 7239-7242

Synthesis of (±)-camptothecin using a [3+2] nitrone cycloaddition to construct the CDE ring moiety pp 7247–7250 Jurong Yu,* Jeffrey DePue and David Kronenthal



A novel synthesis to camptothecin is described. A Friedlander condensation of *o*-aminobenzaldehye with tricylclic ketone affords camptothecin after further elaboration. Tricyclic ketone is prepared via a route employing a [3+2] nitrone cycloaddition and an intramolecular Knoevenagel condensation.

A convenient synthesis of new α -aminoalkylphosphonates, aromatic analogues of arginine as inhibitors of trypsin-like enzymes

Marcin Sienczyk* and Jozef Oleksyszyn



A simple and efficient protocol for the synthesis of new *N*-protected α -aminoalkylphosphonic diphenyl esters—aromatic analogues of arginine—is presented.

Access to enantiopure polycyclic β-lactams by Diels–Alder reaction of novel inner-outer-ring 2-(silyloxy)dienes with a carbacepham skeleton

pp 7255-7259

pp 7251-7254

Benito Alcaide,* Rosa M. de Murga, Carmen Pardo and Carolina Rodríguez-Ranera



Enantioselective syntheses of bicyclo[3.1.0]hexane carboxylic acid derivativespp 7261–7264by intramolecular cyclopropanation \bigcirc Naoki Yoshikawa,* Lushi Tan, Nobuyoshi Yasuda,
Ralph P. Volante and Richard D. Tillyer \bigcirc Ho, \bigcirc \bigcirc </

The title compounds serve as intermediates for the synthesis of mGluR agonists, which are useful for the treatment of CNS-related disorders.



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-Ω
Β
n

Alkylation on graphite in the absence of Lewis acids

Grigoriy A. Sereda*



Stereoselective synthesis of *cis*-2,6-bis-hydroxyalkyl-tetrahydropyrans by the permanganate promoted oxidative cyclisation of 1,6-dienes

Alex R. L. Cecil and Richard C. D. Brown*



Synthesis of 2,3'-biindolyls and indolo[3,2-*a*]carbazoles Niklas Wahlström and Jan Bergman*



Palladium-catalyzed asymmetric tandem allylic substitution using chiral 2-(phosphinophenyl)pyridine ligand

Katsuji Ito,* Yoshikatsu Imahayashi, Tomomi Kuroda, Shuuichiro Eno, Bunnai Saito and Tsutomu Katsuki*



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Alcohols oxidation with hydrogen peroxide promoted by TPAP-doped ormosils Sandro Campestrini,* Massimo Carraro, Rosaria Ciriminna, Mario Pagliaro and Umberto Tonellato

 $RR^{-}CHOH + H_2O_2 \xrightarrow{\text{SG-TPAP 0.1 equiv.}} RR^{-}CHO + 2H_2O$ R, R' = Phenyl, Alkyl, H

Synthesis and thermolysis of a Diels–Alder adduct of pentacene and thiophosgene Nathalie Vets, Mario Smet and Wim Dehaen*

A new reduction methodology to prepare pentacene from pentacenequinone, has been developed. In order to solve the problems of solubility and stability of pentacene occurring when using pentacene in OTFTs, a Diels–Alder adduct of pentacene and thiophosgene, has been prepared. The retro-Diels–Alder reaction, which converts the adduct back to pentacene, has been studied.

An efficient and green protocol for the preparation of cycloalkanols: a practical synthesis of venlafaxine

10% aq.NaOH/PTC

Subhash P. Chavan,* Dushant A. Khobragade, Subhash K. Kamat, Latha Sivadasan, Kamalam Balakrishnan, T. Ravindranathan, Mukund K. Gurjar and Uttam R. Kalkote







NMe.

pp 7291-7295



H₂, 200 psi / formalin

60 °C, 6 h, MeOH

pp 7287-7289

1,3-Dipolar addition of diethyl diazomethylphosphonate onto a C=N double bond. Synthesis of triazolinyl and aziridinyl phosphonates

Romuald Bartnik, Stanisław Leśniak* and Piotr Wasiak



A facile synthesis of novel dispiroheterocycles through solvent-free microwave-assisted [3+2] cycloaddition of azomethine ylides

Jayadevan Jayashankaran, Rathna Durga R. S. Manian and Raghavachary Raghunathan*



Synthesis of novel dispiro oxindole derivatives through microwave-assisted [3+2] cycloaddition reactions of azomethine ylides is described.

Total synthesis of D-(+)-biotin

Subhash P. Chavan,* Guduru Ramakrishna, Rajesh G. Gonnade and Mohan M. Bhadbhade



The total synthesis of D-(+)-biotin has been described starting from D-(+)-glucosamine using acyliminium chemisty.

Solid-phase synthesis of 4*H*-2-(3-hydroxy-4-methoxyphenyl)-naphtho[1,2-*b*]pyran-1-one Pablo Cironi, Fernando Albericio^{*} and Mercedes Álvarez^{*}



An effective solid-phase preparation of the pharmaceutically interesting 4H-2-(3-hydroxy-4-methoxyphenyl)naphtho[1,2-*b*]pyran-1-one system from an anchored bisarylacetylene is described.

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Uncatalysed coupling of an activated aryl chloride with aryllithium and aryl Grignard reagents Demet Astley, Hava Saygi, Sibel Gezer and Stephen T. Astley^{*}



Formation of biaryls occurs in reasonable yields under convenient conditions for both aryllithium reagents and aryl Grignard reagents.



variety of chiral compounds. Compared with previous work, it was found that the s and decreased the enantioseparation capability.

Efficient conjugation and preferential DNA binding of oligonucleotides containing 2'-O-(2-oxoethyl)arabinouridine

pp 7327–7330

Timofei S. Zatsepin, Yulia M. Ivanova, Dmitry A. Stetsenko, Michael J. Gait and Tatiana S. Oretskaya*

In situ cyclopropanation: a rapid one-pot method for the synthesis of resin bound cyclopropyl phenyl methanones as combinatorial scaffolds

Rajesh K. Grover, Ram Chandra Mishra, Bijoy Kundu, Rama Pati Tripathi* and Raja Roy*

A new access to C-arylglycosides related to the gilvocarcins

Alejandro Cordero-Vargas,* Béatrice Quiclet-Sire and Samir Z. Zard

A new strategy has been developed for the synthesis of *C*-aryl glycosides based on a xanthate-mediated free radical addition–cyclization sequence of an acetophenone xanthate to a vinylic carbohydrate followed by aromatization.

Synthesis of 1,2-dihydroisoquinolines via the reaction of *ortho*-alkynylarylimines with bis-π-allylpalladium

Manabu Ohtaka, Hiroyuki Nakamura and Yoshinori Yamamoto*

tandem nucleophilic allylation-aminoallylation of a bis- π -allylpalladium complex

A novel procedure for the synthesis of multifunctional ketones through the Fukuyama coupling reaction employing dialkylzincs

Yoshikazu Mori and Masahiko Seki*

$$R^1 \xrightarrow{O} SR^2$$
 + R^3_2Zn $\xrightarrow{Zn, Br_2, Pd/C}$ $R^1 \xrightarrow{O} R^3$

 R^{1} : Alkyl, Aryl, Aralkyl with functional groups R^{2} : Et, -(CH₂)₁₁CH₃ R^{3} : Alkyl

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pp 7343-7345

pp 7347-7350 Hypervalent iodine-mediated interaction of aldoximes with activated alkenes including Baylis-Hillman adducts: a new and efficient method for the preparation of nitrile oxides from aldoximes Biswanath Das,* Harish Holla, Gurram Mahender, Joydeep Banerjee and Majjigapu Ravinder Reddy

Novel chemical modifications at the 4-position of chromones. Synthesis and reactivity of 4H-chromene-4-spiro-5'-isoxazolines and related compounds

Vyacheslav Ya. Sosnovskikh,* Boris I. Usachev, Aleksei Yu. Sizov and Mikhail I. Kodess

Highly regioselective ring opening of epoxides using NaN₃: a short and efficient synthesis of (-)-cytoxazone

Joshodeep Boruwa, Jagat C. Borah, Biswajit Kalita and Nabin C. Barua*

Novel application of phosphonium salts as co-catalysts for the Baylis-Hillman reaction Claire L. Johnson, Rachel E. Donkor, Wafaa Nawaz and Nazira Karodia*

The first examples of the use of phosphonium salts as co-catalysts for the Baylis-Hillman reaction are described.

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CO₂Et EtC

The synthesis and the structural characterization of dipyrrolyldiketone-based building blocks are reported.

First examples of tetracyclic triterpenoids with a D:B-friedobaccharane skeleton. A tentative biosynthetic route

Marvin J. Núñez, Manuel R. López, Ignacio A. Jiménez, Laila M. Moujir, Angel G. Ravelo and Isabel L. Bazzocchi*

acid and lysophosphatidylcholine from *p*-nitrophenyl glycerate

 $R_2 = CH_2CH_2N(CH_3)_3$

Copper catalyzed enantioselective allylic substitution by MeMgX Karine Tissot-Croset and Alexandre Alexakis*

A new approach to the synthesis of lysophospholipids: preparation of lysophosphatidic Renato Rosseto, Niloufar Bibak and Joseph Hajdu*

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Synthesis of a novel spiro bisphosphinamidite ligand for highly enantioselective hydrogenation Ching Wen Lin, Chi-Ching Lin, Louis F.-L. Lam, Terry T.-L. Au-Yeung and Albert S. C. Chan*

 $\int_{0}^{\infty} = \begin{pmatrix} CO_2R^1 \\ R^2 \\ (1 \text{ atm}) \end{pmatrix} = \begin{bmatrix} 12-Rh(COD) \end{bmatrix} BF_4 \\ (0.2 \text{ mol}\%) \\ \text{solvent, RT, 1-1.5 h} \\ R^3 \\ R^2 \\ 100\% \text{ conv.} \\ \text{up to >99\% ee} \end{bmatrix} \xrightarrow{\text{H}}_{0}^{\text{NHPPh}_2} \\ \frac{H}{H} \\ \text{SpiroNP 12} \\ \text{SpiroN$

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*Corresponding author (*i*)⁺ Supplementary data available via ScienceDirect

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