

Tetrahedron Letters Vol. 48, No. 40, 2007

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COMMUNICATIONS

Synthesis and absolute configuration of (-)-serantrypinone

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David J. Hart* and Gabriel Oba

A general and practical preparation of alkylidene Meldrum's acids

pp 7072-7074

Aaron M. Dumas, Adam Seed, Alexander K. Zorzitto and Eric Fillion*

A general procedure to prepare alkylidene Meldrum's acids is described. The reaction is simple to perform and highly functional group compatible.

Behaviour of selenophenes substituted with electron-withdrawing groups in polar Diels-Alder reactions pp 7075-7078 Claudia Della Rosa, Maria Kneeteman and Pedro Mancini*

Copper-free Sonogashira cross-coupling reaction catalyzed by polymer-supported N-heterocyclic carbene pp 7079–7084 palladium complex

Jong-Ho Kim, Dong-Ho Lee, Bong-Hyun Jun and Yoon-Sik Lee*

$$\begin{array}{c} X \\ + \\ = \\ R_{1} \end{array} \begin{array}{c} X \\ + \\ X = \\ I, \ Br \end{array} \begin{array}{c} Supported \cdot NHC - Pd \ 1 \\ (1 \ mol\%) \\ \hline \\ MF/H_{2}O \\ without \ Cul \end{array} \begin{array}{c} R_{2} \\ R_{1} \end{array}$$

Intermolecular Friedel-Crafts reaction catalyzed by InCl₃

Miho Kaneko, Ryuji Hayashi and Gregory R. Cook*

pp 7085-7087

Copper catalyzed regioselective coupling of allylic halides and alkynes promoted by weak inorganic bases pp 7088–7090 Lothar W. Bieber* and Margarete F. da Silva

Microwave enhanced cross-coupling reactions involving alkenyl- and alkynyltrifluoroborates George W. Kabalka,* Abhijit Naravane and Li Li Zhao pp 7091-7093

$$Ar = BF_3K + Ar^{\frac{1}{2}}OTf$$
 MW $Ar = Ar^{\frac{1}{2}}Ar$

Cross-coupling reactions of potassium alkenyltrifluoroborates and alkynyltrifluoroborates with aryl triflates in the presence of a palladium catalyst occur rapidly utilizing microwave irradiation. The coupled products are provided in good to excellent yields.

Iridium(I)-catalyzed regio- and enantioselective allylic amidation

pp 7094-7098

Om V. Singh and Hyunsoo Han*

Enantioselective synthesis of (R)-homocitric acid lactone

pp 7099-7101

Sunil V. Pansare* and Vikrant A. Adsool



Asymmetric aziridination with chiral allyl aminosulfoxonium ylides: synthesis of alkenyl aziridine carboxylates and palladium-catalyzed *E*,trans/*E*,cis-isomerization of an alkenyl aziridine

pp 7102-7107

Vijaya Bhaskara Reddy Iska, Hans-Joachim Gais,* Shashi Kant Tiwari, Gadamsetti Surendra Babu and Adeline Adrien

A copper-catalyzed domino radical cyclization route to benzospiro-indolizidinepyrrolidinones

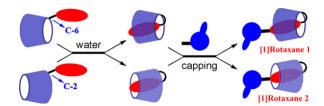
pp 7108-7111

Christian V. Stevens,* Ellen Van Meenen, Kurt G. R. Masschelein, Yves Eeckhout, Wim Hooghe, Bart D'hondt, Victor N. Nemykin and Viktor V. Zhdankin

Disparate orientation of [1]rotaxanes

Xiang Ma, Qiaochun Wang and He Tian*

pp 7112-7116



[1]Rotaxanes with disparate orientation were constructed conveniently and directly through self-inclusion complexation of azobenzene modified β -cyclodextrins (β -CyD) at the different $\bf 6$ and $\bf 2$ positions and Suzuki-coupling capping in aqueous solution.



Total synthesis of rhein and diacerhein via a directed *ortho* metalation of an aromatic substrate Vanessa Gonnot, Steve Tisserand, Marc Nicolas, Rachid Baati* and Charles Mioskowski

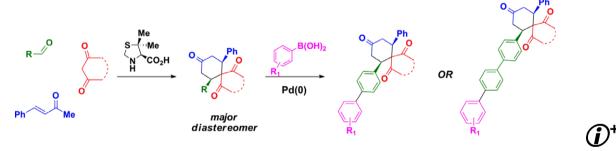
pp 7117-7119

Rhein 1 and diacerhein 2 have been successfully synthesized in few steps using a highly selective DOM reaction.



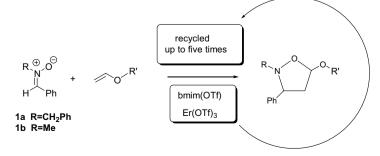
Domino Knoevenagel/Diels-Alder sequence coupled to Suzuki reaction: a valuable synthetic platform for pp 7120-7124 chemical biology

Daniela Pizzirani, Marinella Roberti* and Maurizio Recanatini



1,3-Cycloaddition of nitrones in ionic liquids catalyzed by Er(III): an easy access to isoxazolidines Olga Bortolini,* Antonio De Nino, Loredana Maiuolo,* Beatrice Russo, Giovanni Sindona and Amedeo Tocci

pp 7125-7128



Copper-free PdCl₂/PPh₃-catalyzed Sonogashira coupling reaction of aryl bromides with terminal alkynes pp 7129–7133 in water

Jin Tao Guan, Tan Qing Weng, Guang-Ao Yu and Sheng Hua Liu*

$$Ar-Br + = R \xrightarrow{PdCl_2, PPh_3} Ar = R$$

$$H_2O, Pyrrolidine$$

$$120 ^{\circ}C, 140 min$$

R= aryl, alkyl

A simple, copper-free and efficient catalyst system for the Sonogashira coupling reaction of aryl bromides with terminal alkynes in water has been developed. The use of PdCl₂/PPh₃ in the presence of pyrrolidine allows the coupling reaction to proceed at 120 °C with moderate to excellent yields.

Lithium borohydride: a reagent of choice for the selective reductive amination of cyclohexanones Shawn Cabral,* Bernard Hulin and Makoto Kawai

pp 7134-7136

$$P'$$
 + RNH₂ \longrightarrow R' NHR

We report a selective procedure for the reductive amination of substituted cyclohexanones with primary amines using lithium borohydride to give predominantly the equatorial amines.

A novel approach for the synthesis of the peripheral benzodiazepine receptor ligand, PK11195 Louise Stevenson, Sally L. Pimlott and Andrew Sutherland*

pp 7137-7139

Synthesis of some mono- and bis-spiro- β -lactams of benzylisatin

pp 7140-7143

Aliasghar Jarrahpour* and Dariush Khalili



A facile C-arylation of N-tosyl aziridines via Ag(I) catalysis

pp 7144-7146

Milan Bera and Sujit Roy*



Stereoselective total synthesis of arenastatin A, a spongean cytotoxic depsipeptide

pp 7147-7150

Naoyuki Kotoku, Fuminori Narumi, Tomoya Kato, Miho Yamaguchi and Motomasa Kobayashi*

A convenient method for the synthesis of substituted thioureas

pp 7151-7154

Mahagundappa Maddani and Kandikere Ramaiah Prabhu*

$$\mathsf{R}^{\frown}\mathsf{NH}_2 + \mathsf{MoO}_2(\mathsf{S}_2\mathsf{CNR}^1{}_2)_2 \qquad \xrightarrow{\mathsf{Toluene, N}_2} \qquad \mathsf{R}^{\frown}\mathsf{N} \overset{\mathsf{S}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N}}}}{\overset{\mathsf{N}}}{\overset{\mathsf{N$$



A diastereoselective synthesis of 4-azidotetrahydropyrans via the Prins-cyclization

J. S. Yadav,* B. V. Subba Reddy, Tapas Maity and G. G. K. S. Narayana Kumar

pp 7155-7159

$\label{lem:condition} An \ FeCl_3\mbox{-catalyzed highly C3-selective Friedel-Crafts alkylation of indoles with alcohols}$

pp 7160-7163

Umasish Jana,* Sukhendu Maiti and Srijit Biswas

The FeCl₃-catalyzed C3-selective Friedel–Crafts alkylation of indoles using allylic, benzylic and propargylic alcohols has been developed.

Novel three-component tandem reactions of cyclic mono ketones, isatin and sarcosine: formation of dispiropyrrolidines

pp 7164-7168

Raju Suresh Kumar and Subbu Perumal*

(i)+

Molybdenum(V) chloride-catalyzed amidation of secondary benzyl alcohols with sulfonamides and carbamates

pp 7169-7172

Ch. Raji Reddy,* P. Phani Madhavi and A. Syamprasad Reddy

$$\begin{array}{c|c} OH & X\text{-NH}_2 \\ \hline R & \hline & MoCl_5 (5 \text{ mol}\%) \\ \hline & CH_2Cl_2, \text{rt} \end{array} \qquad \begin{array}{c} NH\text{-}2 \\ \hline \end{array}$$

R= alkyl or aryl or alkynyl; X= PhSO $_2$ or Ts or Cbz or Boc

Stereoselective synthesis of the phytotoxic nonenolide herbarumin-I from L-ascorbic acid

pp 7173-7176

K. Nagaiah,* D. Sreenu, R. Srinivasa Rao and J. S. Yadav

Pd⁰/Sn^{II} promoted Barbier-type allylation and crotylation of sulfonimines Ujjal Kanti Roy and Sujit Roy*

pp 7177-7180



A novel and facile synthesis of 7,8-diacylcoumarins

Antigoni Kotali,* Ioannis S. Lafazanis and Philip A. Harris

pp 7181-7183

The synthesis of the title compounds, in good yields, is reported via the transformation of a hydroxy into an acyl group reported for the first time in heterocycles.

$Zn(OAc)_2 \cdot 2H_2O$: a versatile catalyst for the one-pot synthesis of propargylamines

pp 7184-7190

Enugala Ramu, Ravi Varala, Nuvula Sreelatha and Srinivas R. Adapa*

R= alkyl or aryl
$$X = 0$$
, CH_2 $Y = Ph$, TMS , alkyl $n = 0$, 1 $X = 0$, CH_2 $Y = Ph$, TMS , alkyl $X = 0$, X



A selective and sensitive 'naked eye' anion detector based on an imine-π-TCNQ assembly

pp 7191-7193

Paramjit Kaur,* Sandeep Kaur and Kamaljit Singh*

A colorimetric imine based chemosensor is designed for the selective detection of PO_{43} - and CO_{32} - under physiological pH conditions. The intense charge-transfer (CT) sensor gives rise to a reversible purple-to-yellow colour change that is visible to the naked eye.



New cassane butenolide hemiketal diterpenes from the marine creeper Caesalpinia bonduc and their antiproliferative activity

pp 7194-7198

Prem P. Yaday,* Ashish Arora, Hemant K. Bid, Ritu R. Konwar and Sanjeev Kanojiya

Two new cassane butenolides, caesalpinolide A (1) and B (2), epimeric at the hemiketal position were isolated from the marine creeper *Caesalpinia bonduc*.

A general and efficient CuI/BtH catalyzed coupling of aryl halides with thiols

Akhilesh Kumar Verma,* Jaspal Singh and Ritu Chaudhary

pp 7199-7202

We report an exceptionally mild, general and efficient copper catalyzed cross coupling reaction of aryl bromides and thiols using 0.5 mol % CuI and 1 mol % benzotriazole.

Solid-phase synthesis of tertiary-amino linked benzamides: a versatile method for forming C-N bonds with electron-rich and electron-poor anilines

pp 7203-7206

Kevin W. Gillman,* Danielle Bocchino, Jeffrey W. Noonan, Milind Deshpande and Weixu Zhai

Alkoxyl radical fragmentation of 3-azido-2,3-dideoxy-2-halo-hexopyranoses: a new entry to chiral polyhydroxylated 2-azido-1-halo-1-alkenes

pp 7207-7210

Carmen R. Alonso-Cruz, Alan R. Kennedy, María S. Rodríguez and Ernesto Suárez*

RO OH DIB
$$/1_2$$
 RO HOCO N₃ X DBU RO HOCO N₃ X

DIB = PhI(OAc)₂; X = F, CI,B r, I



Organocatalytic activation of TMSCN by basic ammonium salts for efficient cyanation of aldehydes and pp 7211–7214 imines

I. Victor Paul Raj, Gurunath Suryavanshi and A. Sudalai*

The synthesis of pyrrole bis-coumarins, new structures for fluorescent probes

pp 7215-7217

Lokesh Shastri, Shivashankar Kalegowda and Manohar Kulkarni*

p-Toluenesulfonic acid mediated zinc chloride: highly effective catalyst for the Beckmann rearrangement pp 7218–7221 Lin-fei Xiao, Chun-gu Xia* and Jing Chen

PTSA-ZnCl₂ has been proved to be an excellent catalyst for liquid-phase Beckmann rearrangement of ketoximes in acetonitrile. The satisfactory yields of amides were obtained in the presence of this catalyst system.

A simple and efficient one-step, regioselective, enzymatic glucosylation of arbutin by α-glucosidase Nenad B. Milosavić,* Radivoje M. Prodanović and Ratko M. Jankov

pp 7222-7224

Palladium-catalyzed ring opening of azabicyclic olefins with organoindium reagents: a simple, clean, and pp 7225–7227 efficient synthesis of functionalized cyclopentenes

Jubi John, S. Anas, V. S. Sajisha, S. Viji and K. V. Radhakrishnan*

i = [Pd(allyl)Cl]2 (5 mol%), dppe (10 mol%), Yb(OTf)₃ (2mol%), THF, 60°C, 12 h.

Facile synthesis of medium-sized cyclic amines based on Friedel-Crafts reaction via iminium cation by pp 7228-7231 use of acetylene dicobalt complex

Megumi Mizukami, Hiroshi Saito, Toshio Higuchi, Masanori Imai, Hideo Bando, Norio Kawahara and Shinji Nagumo*

An intramolecular Friedel–Crafts reaction of the iminium cation with acetylene cobalt moiety proceeded smoothly to give eight- or nine-membered cyclic amine.

A new chemoenzymatic Baylis-Hillman approach for the synthesis of enantiomerically enriched umbelactones

pp 7232-7235

Ahmed Kamal,* Tadiparthi Krishnaji and P. Venkat Reddy

$Copper-catalyzed\ one-pot\ N-alkenylation\ and\ N-alkylation\ of\ amides:\ an\ efficient\ synthesis\ of\ substituted\ 2,3-dihydropyrroles$

pp 7236-7239

Xiaobo Zhou, Huimin Zhang, Jiwei Yuan, Lugen Mai and Yanzhong Li*

$$R^1$$
 Cat. Cul, Ligand K_2CO_3 toluene, reflux

N-alkenylation and N-alkylation of amide

2-Hydroxy-*N*,*N*,*N*-tributylethanaminium thiocyanate as solvent and reagent for the preparation of alkyl pp 7240–7242 thiocyanates

Farajollah Mohanazadeh* and Magid Aghvami

The synthesis of 1,1-disubstituted tetrahydro-β-carbolines induced by iodine

pp 7243-7245

Y. Lingam,* D. Muralimohan Rao, Dipal R. Bhowmik, Pachore Sharad Santu, K. Raghavendra Rao and Aminul Islam

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*Corresponding author

(1) Supplementary data available via ScienceDirect

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