

Tetrahedron Letters Vol. 48, No. 24, 2007

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COMMUNICATIONS

A tunable degree of intramolecular through-space charge transfer in TTF- σ -PBQ systems Evgeny Tsiperman, James Y. Becker* and Vladimir Khodorkovsky*

pp 4161-4163

SMe SMe R = R' = H2 R = H, R' = Cl3 R = R' = Cl

The synthesis, spectral and electrochemical properties of a series of $TTF-\sigma$ -PBQ derivatives, along with a demonstration of the finetuning of the degree of charge transfer in these systems, are reported.

Investigation of the scope of an enantioselective Co-mediated $O \rightarrow C$ rearrangement reaction pp 4165-4168 Simon J. Meek, Emmanuel H. Demont and Joseph P. A. Harrity*





The first one-pot oxidative Michael reaction of Baylis-Hillman adducts with indoles promoted by pp 4169-4172 iodoxybenzoic acid

J. S. Yadav,* B. V. Subba Reddy, Ashutosh Pratap Singh and A. K. Basak



A new approach for the construction of a highly congested bicyclic system in polycyclic polyprenylated pp 4173-4177 acylphloroglucinols (PPAPs)

Yohei Shimizu, Akiyoshi Kuramochi, Hiroyuki Usuda, Motomu Kanai* and Masakatsu Shibasaki*



Highly enantioselective Pd(II)-catalyzed Wacker-type cyclization of 2-allylphenols by use of bisoxazoline ligands with axis-unfixed biphenyl backbone

pp 4179-4182

pp 4183-4185

Feijun Wang, Yong Jian Zhang, Guoqiang Yang and Wanbin Zhang*



A series of axis-unfixed bisoxazoline ligands with different steric and electronic properties was synthesized and applied in Pd(II)catalyzed intramolecular Wacker-type cyclization of allylphenols with high catalytic activity and excellent enantioselectivity (up to 98% ee).

An efficient optical resolution of nitrogen-centered chiral β-hydroxy-tetraalkylammonium salts via complexation with (R)-BINOL

Eiji Tayama* and Hiroyuki Tanaka



The first total synthesis and structural determination of YCM1008A

pp 4187-4190

Kuniaki Tatsuta,* Takahiro Yamaguchi, Yusuke Tsuda, Yumiko Yamaguchi, Nobutaka Hattori, Hiroshi Nagai and Seijiro Hosokawa



Isonitriles as efficient ligands in Suzuki–Miyaura reaction Didier Villemin,* Arnaud Jullien and Nathalie Bar

Ar-X + C₆H₅B(OH)₂
$$\xrightarrow{(AdNC)_2PdCl_2, Cs_2CO_3}$$

dioxane reflux 18 h
X = Cl, Br, I

Isonitrile palladium complexes $[(RNC)_2PdCl_2]$ were prepared and tested in Suzuki reaction of 4-chloroanisol. $(AdNC)_2PdCl_2$ was found the most efficient and was used in phenylation of chloro and bromo aromatic substrates.

A novel, one-pot, three-component synthesis of 4*H*-pyrido[1,2-*a*]pyrimidines Mehdi Adib,* Mohammad Hosein Sayahi, Meisam Nosrati and Long-Guan Zhu pp 4195-4198



Tf₂O as a rapid and efficient promoter for the dehydrative Friedel–Crafts acylation of aromatic pp 4199–4202 compounds with carboxylic acids

Mohammd Mehdi Khodaei,* Abdolhamid Alizadeh* and Ehsan Nazari

$$\bigcirc OMe + RCOOH \xrightarrow{Tf_2O} RCO \bigcirc OMe$$

$$R = CH_3 \text{ or Ph} \text{ rt, neat or 45 } {}^{\circ}C, CH_3NO_2 \bigcirc OMe$$

Highly active ruthenium-based catalyst for metathesis of cyano-contained olefins Wenzhen Zhang, Rong Zhang and Ren He^{*}

> NC CN Cat. 2-5 $-C_2H_4$ NC CN ClNC CN ClNC

pp 4203-4205

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Benzotriazole: an excellent ligand for Cu-catalyzed N-arylation of imidazoles with aryl and heteroaryl pp 4207–4210 halides

Akhilesh Kumar Verma,* Jaspal Singh, V. Kasi Sankar, Ritu Chaudhary and Ramesh Chandra



Copper catalyzed magnesium-Barbier reaction for γ -selective alkyl–allyl coupling Ender Erdik^{*} and Melike Koçoğlu



CuCN catalyzed alkyl–allyl coupling under magnesium-Barbier conditions occurs regioselectively and affords predominantly, or exclusively, γ -products in good to high yields.

Diels-Alder adducts derived from the natural phthalide Z-ligustilide

Erik Lager, Anders Sundin, Rubén A. Toscano, Guillermo Delgado and Olov Sterner*

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

(R)-(+)-[VCD(+)945]-4-Ethyl-4-methyloctane, the simplest chiral saturated hydrocarbon with a quaternary stereogenic center

Takuma Fujita, Kazuhiro Obata, Shunsuke Kuwahara, Nobuaki Miura, Atsufumi Nakahashi, Kenji Monde, John Decatur and Nobuyuki Harada*



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Aryl C-glycosylation using an ionic liquid containing a protic acid

Chigusa Yamada, Kaname Sasaki, Shuichi Matsumura and Kazunobu Toshima*





Novel thiolated amino-alcohols as chiral ligands for copper-catalyzed asymmetric nitro-aldol reactions pp 4235–4238 Woraluk Mansawat, Ittiphol Saengswang, Palita U-prasitwong, Worawan Bhanthumnavin and Tirayut Vilaivan*



Thiolated amino-alcohols have been synthesized and evaluated as a potential new class of chiral ligands for coppercatalyzed nitro-aldol reactions. A range of aromatic aldehydes was acceptable for the nitro-aldol reaction with nitromethane, giving moderate to good enantioselectivities (69–88% ee).

Direct transformation of benzilic amines to carbonyls using polyacrylamide-bound tungstate under phase-transfer catalysis conditions

4) Ac₂O

5) cat-Hg(OTf)₂/toluene

Hiromi Hamamoto, Yachiyo Suzuki, Hideyo Takahashi and Shiro Ikegami*



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TBSOTf-assisted three component coupling of epoxides, THF, and ylides derived from the phosphoniosilylation products of enones and α , β -unsaturated lactones Jung Hyun Kim and Sun Ho Jung^{*}

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Synthesis, crystal structure and spectroscopic properties of an unsymmetrical compound with carbazole pp 4249–4253 and benzothiadiazole units

Qingguo He, Yuxi Sun, Wei Liu, Shengang Xu, Zhaokui Cao, Jiangong Cheng and Fenglian Bai*



A three-component approach to isoquinoline derivatives by cycloaddition/Heck reaction sequence Masato Oikawa,* Yoshiyuki Takeda, Shinya Naito, Daisuke Hashizume, Hiroyuki Koshino and Makoto Sasaki





A three-component coupling reaction approach toward isoquinoline derivatives is reported.

Synthesis of the C1–C12 fragment of amphidinolide T1 Chandrasekhar Abbineni, Pradip K. Sasmal,* K. Mukkanti and Javed Iqbal*



pp 4259-4262

An efficient catalyst-free regio- and stereoselective ring-opening of epoxides with phenoxides using pp 4263–4265 polyethylene glycol as the reaction medium

Biswanath Das,* Maddeboina Krishnaiah, Ponnaboina Thirupathi and Keetha Laxminarayana



Me₃SiCH₂Li I₂/MeOH -78 °C

Me₃SiCH₂Li I2/MeOH -78 °C 57%-65% yield

72%-80% vield

Novel diastereoselective synthesis of (*E*)- and (*Z*)-allylsilanes via organoboranes Narayan G. Bhat,^{*} Wendy C. Lai and Matthew B. Carroll

Peptide bond formation catalyzed by α -chymotrypsin in ionic liquids

Guo-wen Xing,* Feng-yun Li, Cong Ming and Li-nan Ran

 α -Chymotrypsin catalyzed peptide bond formation was studied in ionic liquids using the synthesis of a protected fragment of Leu-enkephalin, ZTyrGlyGlyOEt, as model reaction. MOEMIM·PF₆ was found to be the most favorable solvent among the six different 1-alkyl-3methylimidazolium hexafluorophosphates and tetrafluoroborates ionic liquids screened. With MOEMIM·PF₆ as reaction media, several di- or tripeptide derivatives were successfully prepared in 68–75% isolated yields.

Calix[4]pyrrole–TCBQ assembly: a signal magnifier of TCBQ for colorimetric determining amino acids pp 4275–4279 and amines

Kai Liu, Lijun He, Xiaoming He, Yong Guo, Shijun Shao* and Shengxiang Jiang

Gly

Blank

Calix[4]pyrrole-based supramolecular assemblies, formed by the π - π CT interaction between calix[4]pyrroles and TCBQ, can be used for selective sensing of amino acids and amines by visual color changes in an unbuffered water-containing media at room temperature.

pp 4267-4269







(i)+

Rationally designed organocatalyst for direct asymmetric aldol reaction in the presence of water Chao Wang, Yi Jiang,* Xiao-xia Zhang, Yi Huang, Bo-gang Li and Guo-lin Zhang*



Efficient synthesis from D-lyxonolactone of 2-acetamido-1,4-imino-1,2,4-trideoxy-L-arabinitol LABNAc, pp 4287–4291 a potent pyrrolidine inhibitor of hexosaminidases

J. S. Shane Rountree, Terry D. Butters, Mark R. Wormald, Raymond A. Dwek, Naoki Asano, Kyoko Ikeda, Emma L. Evinson, Robert J. Nash and George W. J. Fleet*



L-series: potent non-competitive hexosam inidase inhibition R = H, PhCH₂ D-series: weak competitive hexosaminidase inhibition

Microwave-assisted synthesis of mGluR1 ligands: carbon, nitrogen and oxygen linked derivatives of pp 4293–4296 pyrido[3,4-*d*]pyrimidin-4-ylamines

Gareth W. Harbottle,* Neil Feeder, Karl R. Gibson, Mel Glossop, Graham N. Maw, William A. Million, Florence F. Morel, Simon Osborne and Cedric Poinsard



Sulfamic acid-catalyzed Michael addition of indoles and pyrrole to electron-deficient nitroolefins under pp 4297–4300 solvent-free condition

Li-Tao An, Jian-Ping Zou,* Li-Li Zhang and Yong Zhang



Sulfamic acid (SA) effectively catalyze the Michael addition of indoles and pyrrole to nitroolefins under solvent-free condition to afford the corresponding Michael adducts in good to excellent yields.

Stereoselective synthesis of trans-disubstituted-β-lactams from *N*-phenylsulfenylimines Stéphanie Coantic, Dominique Mouysset, Serge Mignani, Michel Tabart and Lucien Stella*





Stereoselective 5-*exo-trig* radical cyclization in the enantioselective synthesis of Pregabalin Verónica Rodríguez, Leticia Quintero and Fernando Sartillo-Piscil*

A practical stereoselective 5-*exo-trig* radical cyclization procedure was developed in order to prepare enantiomerically pure GABA derivative precursors (4-alkyl-pyrrolidin-2-ones). This procedure allows much more rapid access to optically pure GABA derivatives, such as the powerful antiepileptic agent (S)-(+)-3-aminomethyl-5-methylhexanoic acid (Pregabaline).

Ph \sim Br Br Br Br $\frac{1. \text{Stereoselective}}{\text{S-exo-trig radical}}$ + O $\frac{2. \text{Debenzylation}}{3. \text{Hydrolysis}}$

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

COVER

The first total synthesis of YCM1008A, a new Ca²⁺-signaling inhibitor, has been achieved. The *N*-methoxy pyrano-pyridone moiety was synthesized by successive O- and N-conjugate additions with diketoamide. The absolute configuration of YCM1008A was disclosed by the total synthesis.

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NH₂

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Pregabalin

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