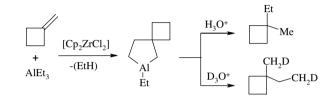


Tetrahedron Letters Vol. 48, No. 49, 2007

Contents

COMMUNICATIONS

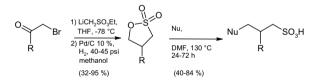
Dzhemilev reaction for the synthesis of spiro[**3.3**]heptane and spiro[**3.4**]octanes Vladimir A. D'yakonov,^{*} Evgeniy Sh. Finkelshtein and Askhat G. Ibragimov



For the first time cycloalumination of methylenecyclobutane with the aid of Et_3Al in the presence of Cp_2ZrCl_2 leading to 6-ethyl-6aluminaspiro[3.4]octane has been realized. The latter, without isolation, was converted into spiro[3.3]heptane and spiro[3.4]octanes.

A novel synthetic route to 2-alkylpropane-1,3-sultones and its application to the synthesis of 2-alkyl pp 8587–8589 derivatives of tramiprosate

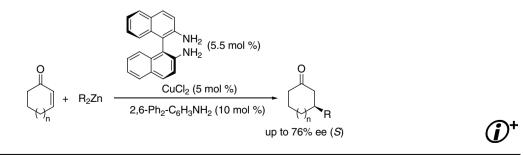
Benoit Bachand,* Mohamed Atfani, Bita Samim, Sophie Lévesque, Daniel Simard and Xianqi Kong



Enantioselective conjugate addition of dialkylzinc to cyclic enones catalyzed by chiral binaphthyldiamine-copper(I) complexes

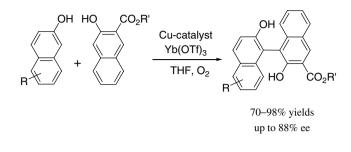
pp 8590-8594

Manabu Hatano, Takafumi Asai and Kazuaki Ishihara*



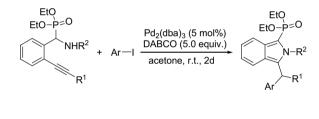
pp 8583-8586

Shigeki Habaue,* Tomohisa Temma, Yukihiro Sugiyama and Pei Yan



Synthesis of isoindol-1-ylphosphonate derivatives via Pd(0)-catalyzed reaction of α -amino (2-alkynylphenyl) methylphosphonate with aryl iodide

Qiuping Ding, Bing Wang* and Jie Wu*



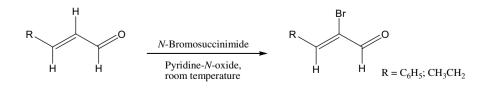
S-Methylation of polythiolactam: chemical transformation of macrocyclic anion receptor into new macrocyclic ligand for metal ions

Junichi Sawada, Ken Okamoto, Takakazu Yamamoto and Takaki Kanbara*



α -Bromination of linear enals and cyclic enones

Pakorn Bovonsombat,* Rungkarn Rujiwarangkul, Thanathip Bowornkiengkai and Juthamard Leykajarakul



Facile direct α -bromination of cyclic enones and enals involving N-bromosuccinimide and pyridine-N-oxide is reported.

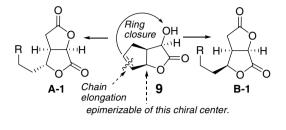
pp 8595-8598

pp 8599-8602

pp 8607-8610

pp 8603-8606

Yung-Son Hon* and Hsien-Fan Chen



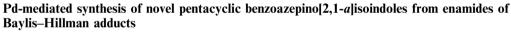
excess AcO

test paper detect AcO⁻at 10mg/L

COOMe

Heck

Color responses of novel receptors for AcO⁻ and a test paper for AcO⁻ in pure aqueous solution Xudong Yu, Hai Lin, Zunsheng Cai and Huakuan Lin*

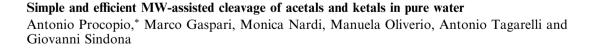


OH

COOMe

Saravanan Gowrisankar, Hyun Seung Lee, Ka Young Lee, Ji-Eun Lee and Jae Nyoung Kim*

-NO



 $\begin{array}{c} R \\ R' \\ OR'' \\ OR'' \\ \hline MW 15-30' \\ \hline 80-150 \ ^{\circ}C \\ \hline R' \\ \hline \end{array} \begin{array}{c} R \\ R' \\ \hline R' \\ \hline \end{array} \begin{array}{c} 0 \\ R' \\ \hline \end{array}$

R= alkyl or aryl; R'=R or H; R"= CH₃-, CH₃CH₂-, or -CH₂CH₂-

Simple and efficient MW-assisted cleavage of acetal and ketal is proposed in deionized water and in a very short time.

pp 8611-8614

pp 8615-8618



pp 8623-8627

NO₂

COOMe

 \cap

Revised structure of kasarin, an antibacterial pyrazinone compound from the marine microorganism pp 8628–8631 *Hyphomycetes* sp.

Masaki Kita, Ryoka Miwa, Triana Widianti, Yoshikazu Ozaki, Sachiko Aoyama, Kaoru Yamada and Daisuke Uemura*



A practical route for synthesizing a PET ligand containing $[^{18}F]$ fluorobenzene using reaction of pp 8632–8635 diphenyliodonium salt with $[^{18}F]F^-$

Ming-Rong Zhang,* Katsushi Kumata and Kazutoshi Suzuki

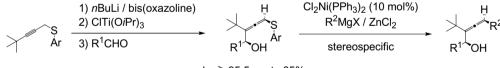
SnBu₃

HO

Asymmetric lithiation of 2-alkynyl aryl sulfides—Enantio- and diastereoselective formation of allenyl pp 8636–8642 aryl sulfides and their application in nickel-catalyzed cross-coupling reactions

Ralf Otte, Birgit Wibbeling, Roland Fröhlich, Shuichi Nakamura, Norio Shibata, Takeshi Toru* and Dieter Hoppe*

ΩTs



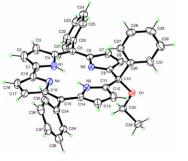


Allenyl aryl sulfides are synthesized enantio- and diastereoselectively by asymmetric lithiation of 2-alkynyl aryl sulfides. Subsequent nickel-catalyzed coupling reactions afforded threefold carbon-substituted allenes.

One-step synthesis of isocorroles

Sara Nardis,* Giuseppe Pomarico, Frank R. Fronczek, Maria Graça H. Vicente and Roberto Paolesse

Reaction of triarylcorroles with DDQ gives two isocorroles, with the interruption of conjugation at the 5 or 10 position, representing a facile synthetic route for the preparation these macrocycles.

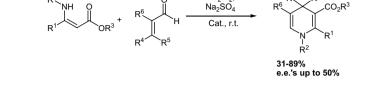




pp 8643-8646

8574

Metal-free Brønsted acids catalyzed synthesis of functional 1,4-dihydropyridines Julie Moreau, Agathe Duboc, Claudie Hubert, Jean-Pierre Hurvois and Jean-Luc Renaud*



CO₂R³

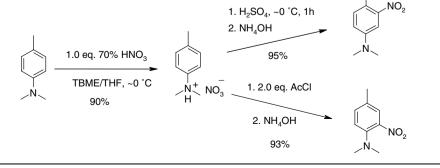
Oxazoline-mediated highly stereoselective synthesis of α , β -substituted- β -aminoalkanamides, potential precursors of unnatural $\beta^{2,2,3}$ -amino acids Vito Capriati, Leonardo Degennaro, Saverio Florio* and Renzo Luisi

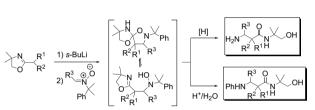
Asymmetric synthesis of α , β -substituted β -aminoalkanamides and stereochemical determination Vito Capriati, Leonardo Degennaro, Saverio Florio,* Renzo Luisi and Corrado Cuocci



Mono-nitration of aromatic compounds via their nitric acid salts

Pingsheng Zhang,* Miall Cedilote, Thomas P. Cleary and Michael E. Pierce





 $\begin{array}{cccc} H_2 N & \stackrel{R^2}{\underset{R^3}{\longrightarrow}} H & \stackrel{H}{\underset{O}{\longrightarrow}} OH & \stackrel{(CH_2O)_n}{\underset{CH_3OH, 100 \ ^\circ C}{\longrightarrow}} & \stackrel{R^2}{\underset{R^3}{\underset{H}{\longrightarrow}} N & \stackrel{N}{\underset{N}{\longrightarrow}} OH \end{array}$



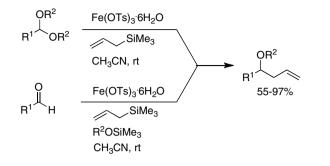
pp 8651-8654



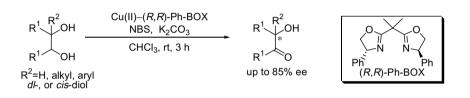
pp 8655-8658

pp 8647-8650

Iron(III) p-toluenesulfonate catalyzed synthesis of homoallyl ethers from acetals and aldehydes Matthew J. Spafford, Erin D. Anderson, Joshua R. Lacey, Ann C. Palma and Ram S. Mohan*

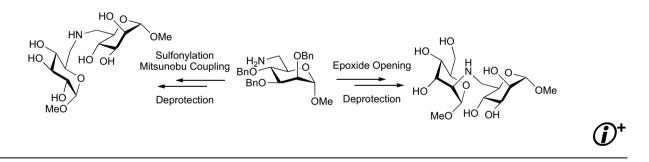


Asymmetric oxidation of 1,2-diols using N-bromosuccinimide in the presence of chiral copper catalyst pp 8668-8672 Osamu Onomura,* Hitomi Arimoto, Yoshihiro Matsumura and Yosuke Demizu



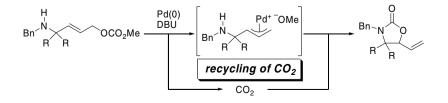
Investigations into the synthesis of amine-linked neodisaccharides

Tashfeen Akhtar and Ian Cumpstey*



Synthesis of vinyloxazolidinones by palladium-catalyzed CO₂-recycling reaction of 4-(benzylamino)pp 8678-8682 2-butenyl carbonates

Masahiro Yoshida,* Yusuke Ohsawa, Kenji Sugimoto, Hidetoshi Tokuyama and Masataka Ihara



pp 8673-8677

pp 8665-8667

Fluorescent sensing of pyrophosphate and ATP in 100% aqueous solution using a fluorescein derivative pp 8683-8686 and Mn^{2+}

Mn²¹

ດວ່າ ຄວ່າ

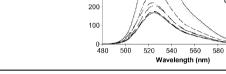
K. M. K. Swamy, Soo Kyung Kwon, Ha Na Lee, S. M. Shantha Kumar, Jong Seung Kim and Juyoung Yoon*

PPi, ATP

600

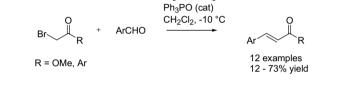
500

400 300 300



A one-pot silyl-Reformatsky olefination

James M. Smith and Michael F. Greaney*

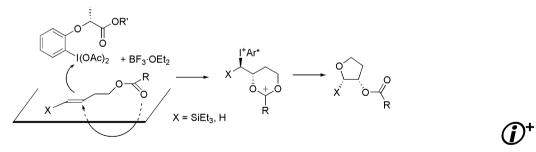


Cl₃SiH, NEt₃

A novel one-pot olefination reaction has been developed using α -bromocarbonyl compounds, aromatic aldehydes and a reagent combination of trichlorosilane and triethylamine. The general procedure offers key advantages (high conversions, low quantities of organic soluble by-products) over the conventional Wittig reaction.

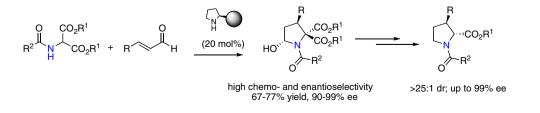
Enantiodifferentiating tetrahydrofuranylation of but-3-enyl carboxylates using optically active hypervalent iodine(III) reagents via a 1,3-dioxan-2-yl cation intermediate

Morifumi Fujita,* Sakuro Okuno, Hee Jin Lee, Takashi Sugimura and Tadashi Okuyama



Organocatalytic asymmetric 5-hydroxypyrrolidine synthesis: a highly enantioselective route to 3-substituted proline derivatives

Ramon Rios,* Ismail Ibrahem, Jan Vesely, Henrik Sundén and Armando Córdova*



pp 8687-8690

pp 8691-8694

pp 8695-8699

Aza-Henry reaction of ketimines catalyzed by guanidine and phosphazene bases Nirmal K. Pahadi, Hitoshi Ube and Masahiro Terada*

10 mol% TMG P(O)Ph₂ or 10 mol% *t*-Bu-P1 R³CH₂NO₂ RT yield up to 96%

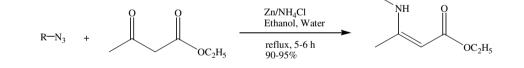
Selective reduction of mono- and disubstituted olefins by NaBH₄ and catalytic RuCl₃ Pawan K. Sharma,* Surender Kumar, Pawan Kumar and Poul Nielsen

The use of the relatively inexpensive reagent, $RuCl_3 \times H_2O$, as a catalyst in combination with NaBH₄, for reductions of olefins in the presence of water is reported.

RuCl₃xH₂O (10 mol%) $R^2 \xrightarrow{\text{NaBH}_4 (2 \text{ eq.}), \text{THF/H}_2O(3/1)} 0^{\circ}C \text{ to room temp.} R^1$

An efficient synthesis of vinylogous carbamates from alkyl azides

Akundi Surya Prabhakar, Suthrapu Sashikanth, Padi Pratap Reddy and Praveen Cherukupally*



An improved and efficient one-pot synthesis of vinylogous carbamates is reported starting from alkyl azides by using NH₄Cl/Zn dust.

The Vilsmeier reagent as an efficient acid activator for the synthesis of β-lactams Aliasghar Jarrahpour* and Maaroof Zarei

$$R^{1}N=CHR^{2} + R^{3}CH_{2}COOH \xrightarrow{Me + H - Cl}_{CH_{2}Cl_{2}, Et_{3}N} R^{3} \xrightarrow{H H H}_{\overline{z}} R^{2}$$



 R^2

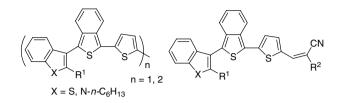
pp 8709-8711

pp 8712-8714

pp 8700-8703

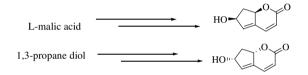
pp 8704-8708

Synthesis of 1,3-disubstituted benzo[c]thiophene analogs containing benzo[b]thiophene/benzo[b]pyrrolepp 8715–8720Arasambattu K. Mohanakrishnan,* J. Arul Clement, P. Amaladass and V. S. Thirunavukkarasupr 8715–8720



Studies directed towards the stereoselective total synthesis of ilexlactone via a tandem ring-closing pp 8721–8724 enyne metathesis protocol

Palakodety Radha Krishna* and M. Narsingam



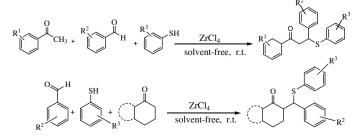
Studies directed towards the stereoselective total synthesis of ilexlactone resulted in the synthesis of bicyclic systems through tandem ring-closing enyne metathesis as the key step.

An anthracene based bispyridinium amide receptor for selective sensing of anions Kumaresh Ghosh,* Avik Ranjan Sarkar and Goutam Masanta

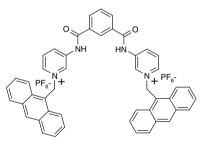
A new receptor has been designed and synthesized for selective recognition of anions through hydrogen bonding and electrostatic interactions. The recognition ability has been studied by fluorescence, UV–vis and ¹H NMR spectroscopic methods. The results demonstrate that the receptor exhibits good recognition ability towards anions and shows strong binding to AcO^- , $H_2PO_4^-$ and F^- .

Multicomponent, solvent-free synthesis of β-aryl-β-mercapto ketones using zirconium chloride as a pp 8730–8734 catalyst

Atul Kumar* and Akanksha

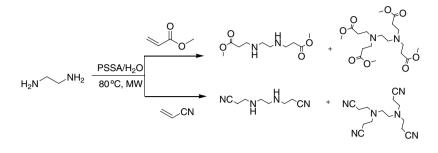


pp 8725-8729



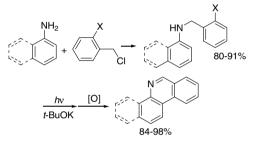
Tandem bis-aza-Michael addition reaction of amines in aqueous medium promoted by polystyrenesulfonic acid

Vivek Polshettiwar and Rajender S. Varma*



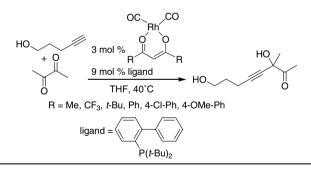
Syntheses of phenanthridines and benzophenanthridines by intramolecular *ortho*-arylation of aryl amide pp 8739–8742 ions with aryl halides via $S_{RN}1$ reactions

Maria E. Budén and Roberto A. Rossi*



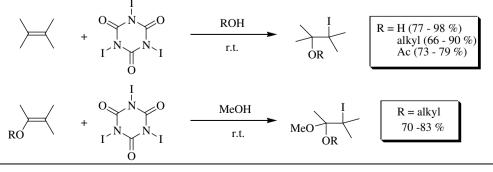
Ligand effects in the rhodium-catalyzed addition of alkynes to aldehydes and diketones. Modification pp 8743-8746 of the β -diketonate ligand

Pawan K. Dhondi, Patrick Carberry and John D. Chisholm*

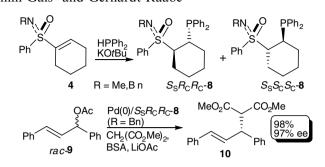


Triiodoisocyanuric acid: a new and convenient reagent for regioselective coiodination of alkenes and pp 8747–8751 enolethers with oxygenated nucleophiles

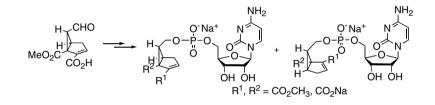
Rodrigo da S. Ribeiro, Pierre M. Esteves* and Marcio C. S. de Mattos*



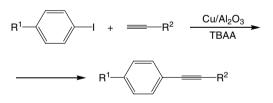
pp 8735-8738



Synthetic studies of new CMP-sialic acid analogues applying a novel buffer-mediated rearrangement pp 8757–8760 Satomi Niwayama,* Venkata Subbarao Kandula, Hezhen Wang and Xiao Chen



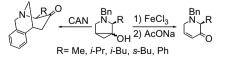
Supported copper precatalysts for ligand-free, palladium-free Sonogashira coupling reactions Andrea Biffis,* Elena Scattolin, Nicoletta Ravasio* and Federica Zaccheria



Copper species such as highly dispersed copper(II) oxide and, most notably, Cu metal on alumina are found to act as efficient precatalysts for Sonogashira coupling reactions of aryl iodides.

Azabicyclo[3.1.0]hexane-1-ols as frameworks for the asymmetric synthesis of biologically active pp 8765–8767 compounds

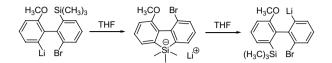
Mouhamad Jida, Régis Guillot and Jean Ollivier*



Azabicyclo[3.1.0]hexane-1-ols, accessible from amino acid derivatives by Ti(IV)-promoted cyclopropanation, can provide chiral dihydropyridinones or piperidinones, depending on the experimental conditions.

pp 8761-8764

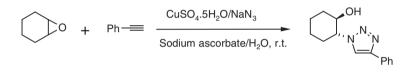
Relative carbanion basicities as driving force for an intramolecular silyl migration of lithiated biphenyls pp 8768–8772 Laurence Bonnafoux, Rosario Scopelliti, Frédéric R. Leroux^{*} and Françoise Colobert



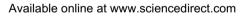
A solvent-dependent silyl migration of lithiated biphenyls is described.

Three component, regioselective, one-pot synthesis of β-hydroxytriazoles from epoxides via 'click pp 8773–8776 reactions'

J. S. Yadav,* B. V. Subba Reddy, G. Madhusudhan Reddy and D. Narasimha Chary



*Corresponding author ()⁺ Supplementary data available via ScienceDirect





Abstracted/indexed 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. Also covered in the abstract and citation database SCOPUS[®]. Full text available on ScienceDirect[®]



ISSN 0040-4039