

### Tetrahedron Letters Vol. 47, No. 14, 2006

## **Contents**

# COMMUNICATIONSReactions of ketone dilithio α,β-dianions with imines and hydrazones: an anionic access to<br/>γ-amino ketonespp 2283–2286Julyong Ryu,\* Go-hei Yamamura, Sohei Omura, Satoshi Minakata and Mitsuo Komatsu $= \begin{pmatrix} 0 \sqcup \ U \ (mines and hydrazones) \ R \ G \ H \ R^{+} \ G \ G \ H \ R^{+} \ G \ G \ R^{+} \ R^{+} \ G \ R^{+} \ G \ R^{+} \ R^{+} \ R^{+} \ G \ R^{+} \ R^{+} \ R^{+} \ G \ R^{+} \$

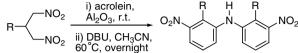
An efficient synthesis of diarylmethanes via  $InCl_3 \cdot 4H_2O$ -catalyzed dehydration of electron-rich arenes pp 2291–2294 with trioxane

Hong-Bin Sun, Ruimao Hua\* and Yingwu Yin\*

$$R \xrightarrow{\bullet} + \underbrace{O}_{OO} \xrightarrow{cat. \ln Cl_3 \cdot 4H_2O}_{120 \ ^0C, \ 6 \ h} \xrightarrow{R} + H_2O$$

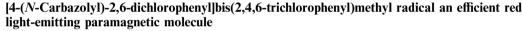
A facile, efficient and environmentally benign procedure for the synthesis of diarylmethanes via the reaction of aromatic compounds with trioxane catalyzed by  $InCl_3 H_2O$  was developed. The reactions of aromatic compounds bearing electron-donating group proceeded smoothly affording the corresponding diarylmethanes in good to excellent yields.

Unprecedented two-step synthesis of symmetrical diarylamines from 2-alkyl-1,3-dinitropropanes Roberto Ballini,\* Luciano Barboni,\* Cristina Femoni, Guido Giarlo and Alessandro Palmieri pp 2295-2297



Reaction of 1,3-dinitropropanes with acrolein under basic conditions (Al<sub>2</sub>O<sub>3</sub>, neat), followed by aromatisation of the obtained 2,4-dinitrocyclohexanols, through their treatment with DBU, gives symmetrical diarylamines.

### A formal synthesis of aflatoxin B2: a Dötz benzannulation approach Stephen A. Eastham, Steven P. Ingham, Michael R. Hallett, John Herbert, Peter Quayle\* and James Raftery



pp 2305-2309

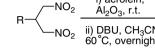
TBS

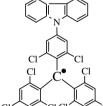
Vanesa Gamero, Dolores Velasco, Sonia Latorre, Francisco López-Calahorra, Enric Brillas and Luis Juliá\*

OMe

Palladium N-methylimidazolium supported complexes as efficient catalysts for the Heck reaction pp 2311-2314 Belen Altava, M. Isabel Burguete, Eduardo García-Verdugo, Naima Karbass, Santiago V. Luis,\* Amrit Puzary and Victor Sans

Efficient and reusable Pd catalysts for the Heck reaction are obtained from resin-supported imidazolium salts, in particular, when pincer moieties are present.





pp 2299-2304

pp 2315-2317

Alumina encapsulated phosphorus pentasulfide (P<sub>4</sub>S<sub>10</sub>/Al<sub>2</sub>O<sub>3</sub>) mediated efficient thionation of long chain amides

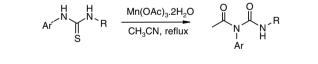
Vivek Polshettiwar\* and M. P. Kaushik\*

$$\begin{array}{c} O \\ H_1 \\ H_1 \\ H_2 \end{array} \xrightarrow{P_4 S_{10}/Al_2 O_3} \\ \hline CH_3 CN \\ H_1 \\ H_1 \\ H_2 \\ H_1 \\ H_2 \\ H_2 \\ H_1 \\ H_2 \\$$

A method for the catalytic enantioselective synthesis of 6-silylated 2-cyclohexenones Min Ge and E. J. Corey\*

Regioselective synthesis of N-acetylureas by manganese(III) acetate reaction of 1,3-disubstituted thioureas

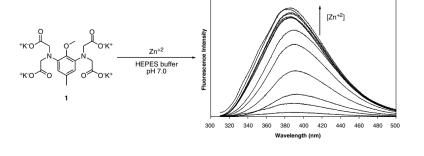
Xue-Jun Mu, Jian-Ping Zou,\* Qiu-Feng Qian and Wei Zhang\*

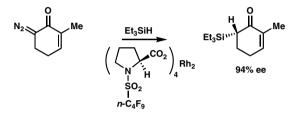


Reactions of asymmetrical 1,3-disubstituted thioureas with manganese(III) acetate produce regioselective N-acetylureas. A mechanism for this novel transformation is proposed.

Design of a zinc(II) ion specific fluorescence sensor

Julius N. Ngwendson, Carrie L. Amiot, D. K. Srivastava and Anamitro Banerjee\*







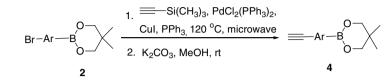
pp 2319-2321

pp 2323-2325

pp 2327-2330

Microwave-assisted synthesis of ethynylarylboronates for the construction of boronic acid-based fluorescent sensors for carbohydrates

Shi-Long Zheng, Suazette Reid, Na Lin and Binghe Wang\*



A facile procedure for the synthesis of ethynylaryl boronates **4** was developed. The key step is microwave-facilitated formation of trimethylsilylethynylaryl boronates by Sonogashira reaction from the corresponding bromides.

### A cascade process toward the synthesis of fused polycyclic dihydropyridines Victor Mamane<sup>\*</sup> and Yves Fort

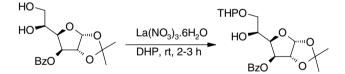
X = Br Cl

5% Pd(PPh<sub>3</sub>)<sub>4</sub> B(OH)<sub>2</sub> 1 equiv Na<sub>2</sub>CO<sub>3</sub> or 2 equiv NaHCO<sub>3</sub>

The synthesis of fused polycyclic dihydropyridines was achieved using a cascade process comprising a Suzuki coupling, a nucleophilic cyclization and a hydrogen migration. Several functional groups are tolerated in this reaction and the methodology could be applied with success to quinoline and isoquinoline derivatives.

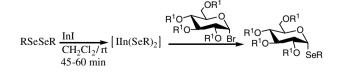
# A mild and efficient chemoselective tetrahydropyranylation of primary alcohols using $La(NO_3)_3 \cdot 6H_2O$ as a catalyst under solvent-free conditions

T. Srikanth Reddy, K. Ravinder, N. Suryakiran, M. Narasimhulu, K. Chinni Mahesh and Y. Venkateswarlu\*



Toluene, 90°C

**Indium(I) iodide mediated efficient synthesis of selenoglycosides** Pallavi Tiwari and Anup Kumar Misra\*



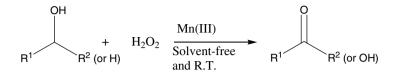
pp 2345-2348

pp 2337–2340

pp 2331-2335

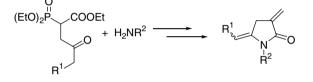
pp 2341-2344

# Effective oxidation of benzylic and aliphatic alcohols with hydrogen peroxide catalyzed by a manganese(III) Schiff-base complex under solvent-free conditions Hamid R. Mardani and Hamid Golchoubian\*



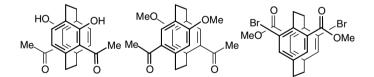
A variety of alcohols were oxidized efficiently into the corresponding ketones and carboxylic acids in excellent yields with hydrogen peroxide using a manganese(III) Schiff-base complex as a catalyst under solvent-free and mild conditions.

New, diastereoselective synthesis of 1-alkyl-5-alkylidene-3-methylidenepyrrolidin-2-ones Anna Albrecht, Jacek Kedzia, Jacek F. Koszuk, Edyta Warzycha and Tomasz Janecki<sup>\*</sup> pp 2353-2355



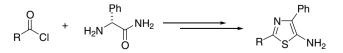
# The first regioselective double electrophilic substitution of the $C_2$ -symmetric *pseudo-meta*-disubstituted pp 2357–2360 [2.2]paracyclophanes

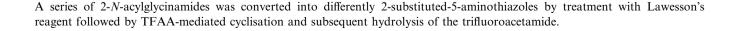
Natalia V. Vorontsova, Evgenii V. Vorontsov, Elena V. Sergeeva and Valeria I. Rozenberg\*



*Ortho-, para-,* and *pseudo-gem-*regioselective double electrophilic substitution of *pseudo-meta-*disubstituted [2.2]paracyclophanes gave rise to three possible types of chiral  $C_2$ -symmetric bis-bifunctional derivatives.

Synthesis of 5-aminothiazoles as building blocks for library synthesis Mark J. Thompson, William Heal and Beining Chen\*





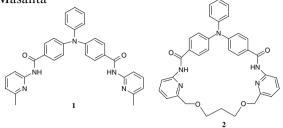
pp 2349–2352

pp 2361-2364

# Triphenylamine-based novel PET sensors in selective recognition of dicarboxylic acids Kumaresh Ghosh\* and Goutam Masanta

pp 2365-2369

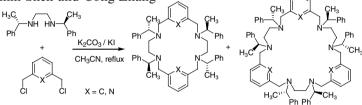
pp 2371-2375



The triphenylamine-based PET chemosensors 1 and 2 have been designed and synthesized, for the first time, for the selective recognition of dicarboxylic acids. The receptor 1 is found to be selective for glutaric and adipic acids and the macrocycle 2 is specific for 2,2-dimethylmalonic acid.

# A facile synthesis of chiral polyazamacrocycles and the UV spectroscopic and CD spectra studies on metal complexes

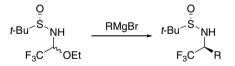
Lin Ai, Jichuan Xiao, Xiumin Shen and Cong Zhang\*



A series of chiral polyazamacrocycles with 12, 18, 24, 27, 36-membered rings were designed and synthesized using (S)- $\alpha$ -phenylethylamine as initial chiral source. The UV spectroscopic titration experiments of polyazamacrocycle **3b** with metal ions were carried out and the binding constants and free energy changes were calculated according to the modified Benesi–Hildebrand equation. Circular dichroism spectra were recorded for **3b** with metal ions.

# Asymmetric addition reactions of Grignard reagents to chiral 2-trifluoromethyl *tert*-butyl (Ellman) sulfinimine–ethanol adducts

Scott D. Kuduk,\* Christina Ng Di Marco, Steven M. Pitzenberger and Nancy Tsou

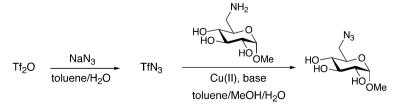


A safe and convenient method for the preparation of triflyl azide, and its use in diazo transfer reactions to primary amines

pp 2383-2385

pp 2377-2381

Alexander Titz, Zorana Radic, Oliver Schwardt and Beat Ernst\*

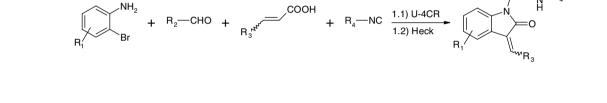


### A concise approach to the epidithiodiketopiperazine (ETP) core Abil E. Aliev, Stephen T. Hilton, William B. Motherwell<sup>\*</sup> and David L. Selwood

A novel approach to the epidithiodiketopiperazine nucleus, incorporating two three-component reactions in a four-step synthetic sequence is reported.

PMBS OEt S

A new and versatile one-pot synthesis of indol-2-ones by a novel Ugi-four-component-Heck reaction pp 2391–2393 Michael Umkehrer,\* Cédric Kalinski, Jürgen Kolb and Christoph Burdack

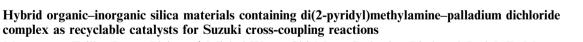


Solvent-free microwave synthesis of 4-hydroxy-3-phenylquinolin-2(1*H*)-ones and variants using pp 2395–2398 activated arylmalonates

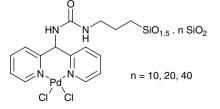
μW, 250 °C 15 min

71%

Alexey Rivkin\* and Bruce Adams



Montserrat Trilla, Roser Pleixats,\* Michel Wong Chi Man, Catherine Bied and Jöel J. E. Moreau



Hybrid materials containing di(2-pyridyl)methylamine-palladium dichloride complex covalently bonded to silica were prepared by sol-gel process and tested as reusable catalysts.

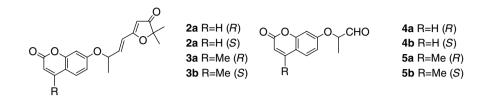
pp 2387-2390



pp 2399-2403

A new convenient route to enantiopure 2-coumarinyloxypropanals: application to the synthesis of optically active geiparvarin analogues

Stefano Chimichi,\* Marco Boccalini,\* Giancarlo Cravotto and Ornelio Rosati



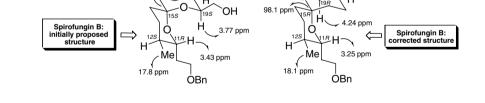
The synthesis of enantiopure 2-coumarinyloxypropanals is described.

**Photodesulfonylation of indoles initiated by electron transfer from triethylamine** Xuechuan Hong, José M. Mejía-Oneto, Stefan France and Albert Padwa\*



Luciana G. de Oliveira, Luiz C. Dias,\* Hiroyuki Sakauchi and Hiromasa Kiyota

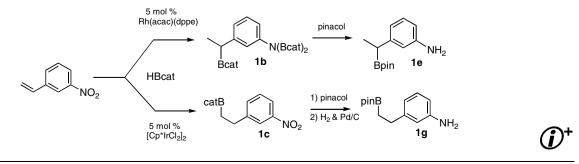
5.0 equiv NEt<sub>3</sub>, CH<sub>3</sub>CN



1.6 ppm

# Catalyzed hydroboration of nitrostyrenes and 4-vinylaniline: a mild and selective route to aniline derivatives containing boronate esters

Christopher M. Vogels, Andreas Decken and Stephen A. Westcott\*



PhO

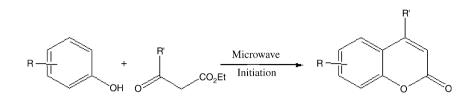
12.4 ppm

pp 2409-2412

pp 2405-2408

pp 2413-2418

pp 2419-2422

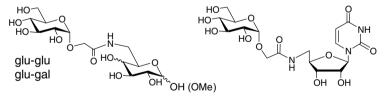


Coumarins were synthesized by a solvent-free energy-saving procedure.

Ferrocenylmethylphosphines as ligands for room temperature Ni(0)-catalyzed Suzuki-Miyaura pp 2427-2430 cross-coupling reactions of aryl arenesulfonates and aryl chlorides Zhen-Yu Tang, Stephen Spinella and Qiao-Sheng Hu\*

$$\frac{\text{Ar-OSO}_2\text{Ar'}}{\text{Ar-Cl}} + \text{Ar''-B(OH)}_2 \xrightarrow{4 \% \text{Ni}(\text{COD})_2/\frac{1}{2}} \text{Ar-Ar''}_{K_3\text{PO}_4, \text{ THF r.t. 48 h}} \text{Ar-Ar''}_{54-99\%}$$

Alexandra Le Chevalier, Ronan Pierre, Rami Kanso, Stéphane Chambert, Alain Doutheau and Yves Queneau\*

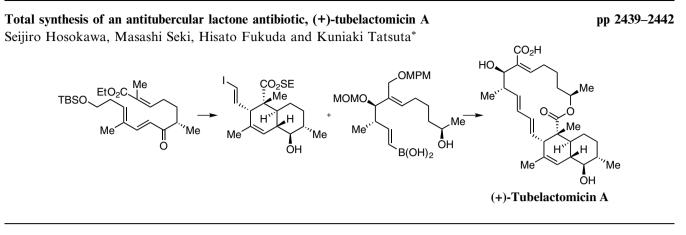


new amido-pseudo -disaccharides or -glyco-nucleoside conjugates

Potassium carbonate as a base for the N-alkylation of indole and pyrrole in ionic liquids Yogesh R. Jorapur, Jae Min Jeong and Dae Yoon Chi\*

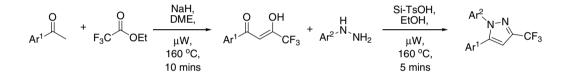
> [bmim][BF<sub>4</sub>], CH<sub>3</sub>CN 2.5 equiv K<sub>2</sub>CO<sub>3</sub> 110 °C indole: 82% pyrrole: 65%

2279

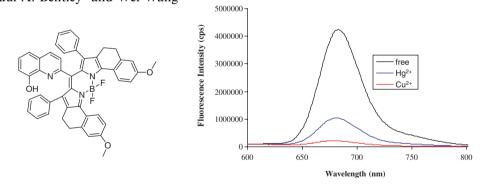


Microwave-assisted synthesis utilizing supported reagents: a rapid and versatile synthesis of pp 2443–2446 1,5-diarylpyrazoles

Paul S. Humphries\* and Jennifer M. Finefield

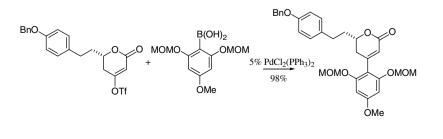


A selective and sensitive chemosensor for  $Cu^{2+}$  based on 8-hydroxyquinoline Yujiang Mei, Paul A. Bentley<sup>\*</sup> and Wei Wang



Suzuki coupling reactions of 2,4,6-trialkoxyphenylboronic acids with enol triflates: asymmetric synthesis of a lactone template for calyxin assemblage

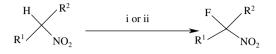
Sidika Polat Cakir and Keith T. Mead\*



pp 2447–2449

pp 2451-2454

Sonochemical fluorination of heterocyclic nitro compounds with Selectfluor<sup>™</sup> (F-TEDA-BF<sub>4</sub>) Majid M. Sadeghi, Hossein Loghmani-Khouzani,<sup>\*</sup> Reza Ranjbar-Karimi and Bernard T. Golding



Reagents and conditions: (i) DBU, Selectfluor, CH<sub>2</sub>Cl<sub>2</sub>, 4-6 h, rt; (ii) )))), CH<sub>3</sub>COONH<sub>4</sub>, Selectfluor, CH<sub>3</sub>OH, 10-15 min, rt.

### **OTHER CONTENTS**

### Calendar

\*Corresponding author (*P*<sup>+</sup> Supplementary data available via ScienceDirect



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

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



pp 2455-2457

, ...

pp I-II