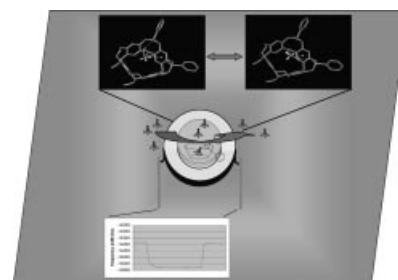


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COVER PICTURE

The cover picture shows the operating principle of a supra-molecular mass sensor. The cavitand receptor is coated on the surface of a quartz crystal microbalance (QCM) and exposed to a flux of the analyte (methanol) in the gas phase (center). All complexation events occurring at the gas/solid interface are collectively recorded by the transducer as a frequency drop (bottom). The molecular interactions responsible for the selective alcohol detection are evidenced in the crystal structure of the complex (top). The Microreview by R. Pinalli, M. Suman and E. Dalcanele covers the issues involved in turning a synthetic receptor into an effective supra-molecular gas sensor, namely design and preparation of the receptor as function of the analytes to be detected, evaluation of the complexation properties of the receptor in the solid state and in the gas phase, sensor reversibility and selectivity as function of layer permeability, on p. 451 ff.



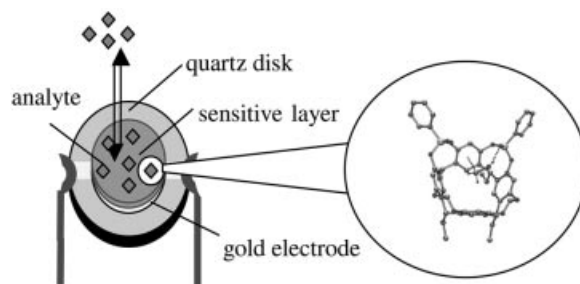
MICROREVIEWS

Contents

451 R. Pinalli, M. Suman, E. Dalcanele*

Cavitands at Work: From Molecular Recognition to Supramolecular Sensors

Keywords: Alcohols / Cavitands / Molecular recognition / Sensors

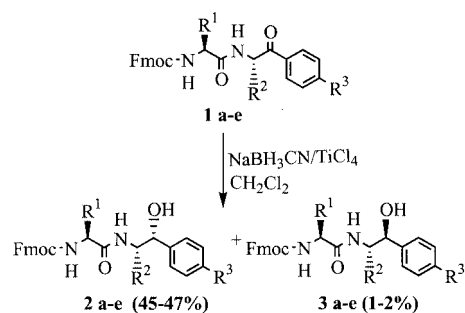


FULL PAPERS

- 463** M. L. Di Gioia, A. Leggio, A. Le Pera,
A. Liguori,* C. Siciliano

Highly Stereoselective Conversion of Aryl Peptidyl Ketones into the Corresponding Peptide Alcohols

Keywords: Alcohols / Peptides / Reduction / Stereo-selectivity / Titanium

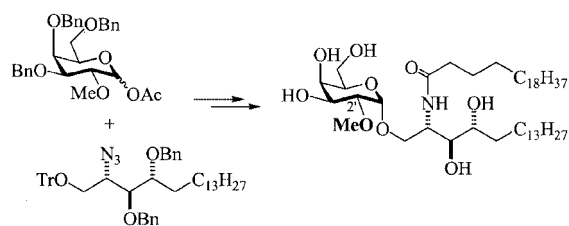


- 468** L. Barbieri, V. Costantino,* E. Fattorusso,
A. Mangoni, E. Aru, S. Parapini,
D. Taramelli



Immunomodulatory α -Galactoglycosphingolipids: Synthesis of a 2'-O-Methyl- α -Gal-GSL and Evaluation of Its Immunostimulating Capacity

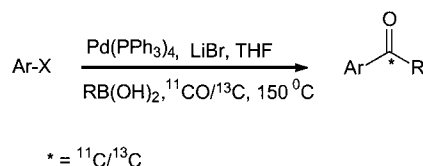
Keywords: Immunomodulatory activity / Glycolipids / Glycosylation / Sphingolipids / Total synthesis



- 474** O. Rahman, T. Kihlberg, B. Långström*

Synthesis of ^{11}C -/ ^{13}C -Ketones by Suzuki Coupling

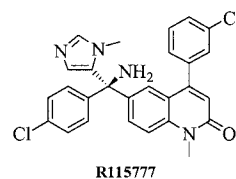
Keywords: Aryl triflates / Boronic acids / Isotope labelling / Ketones



- 479** P. R. Angibaud,* M. G. Venet, W. Filliers,
R. Broeckx, Y. A. Ligny, P. Muller,
V. S. Poncelet, D. W. End

Synthesis Routes Towards the Farnesyl Protein Transferase Inhibitor ZARNESTRATM

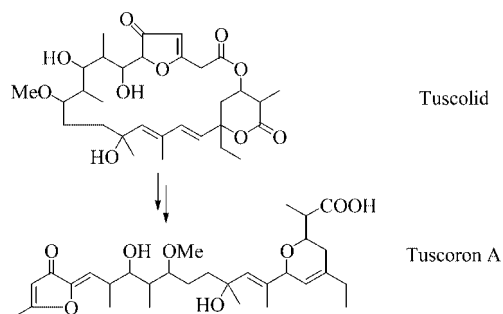
Keywords: Antitumor agents / Heterocycles / Farnesyl protein transferase inhibitors / ZARNESTRA / R115777



- 487** J. Niggemann,* M. Herrmann, K. Gerth,
H. Irschik, H. Reichenbach, G. Höfle

Tuscolid and Tuscoron A and B: Isolation, Structural Elucidation and Studies on the Biosynthesis of Novel Furan-3(2H)-one-Containing Metabolites from the Myxobacterium *Sorangium Cellulosum*

Keywords: *Sorangium cellulosum* / Myxobacteria / Natural products / Structural elucidation / Biosynthesis

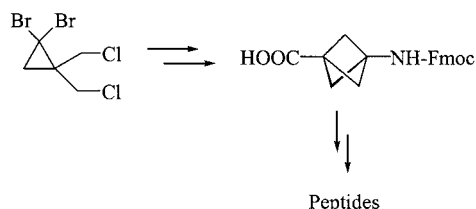


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M. Pätzel,* M. Sanktjohanser, A. Doss,
P. Henklein, G. Szeimies

3-Aminobicyclo[1.1.1]pentane-1-carboxylic Acid
Derivatives: Synthesis and Incorporation into
Peptides

Keywords: Amino acids / Bicyclo[1.1.1]pentane /
Peptides / Small ring systems

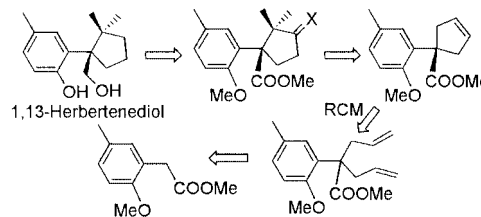


499

A. Srikrishna,* M. S. Rao

A Formal Total Synthesis of (±)-1,13-
Herbertenediol

Keywords: Terpenoids / Synthesis design / Meta-
thesis / Rearrangement

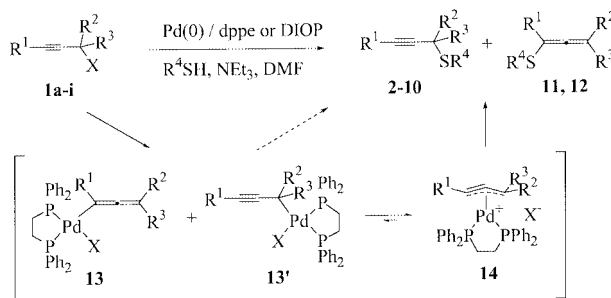


504

K. Tsutsumi,* K. Fujimoto, T. Yabukami,
T. Kawase, T. Morimoto, K. Kakiuchi*

Palladium-Catalyzed Preparation of Propargylic
or Allenylic Sulfides from Propargyl Halides or
Mesylate and Thiols

Keywords: Allenyl / Bidentate phosphane / Palladium /
Propargyl / Sulfides

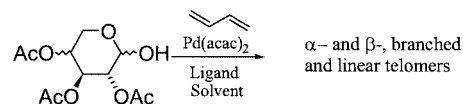


511

F. Hénin,* A. Bessmertnykh,*
A. Serra-Muns, J. Muzart, H. Baillia

Palladium-Catalyzed Telomerization of
Butadiene with Tri-*O*-acetylated Pentoses as a
Convenient Route to 2,7-Octadienyl Glycosides

Keywords: Pentoses / Glycosides / Palladium / Telo-
merization / Butadiene

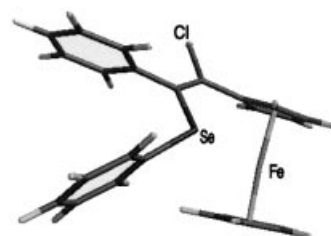


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T. Brunetti, M. Diddoro, M. L. Di Vona,
B. Floris,* P. Galloni, S. Licoccia

The Regiochemistry of the Addition of PhSeCl
to Arylferrocenylethynes: A Cooperative Effect?

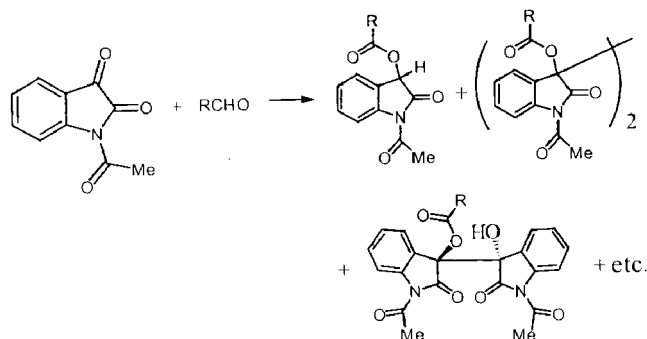
Keywords: Alkynyl ferrocenes / Phenylselenylation /
Electrophilic addition / Selenium / Ferro-
cenes



527 Y. Zhang, L. Wang, Y. Zhu, J.-H. Xu*

Mechanism of Photoinduced Reactions between 1-Acetylisatin and Aldehydes

Keywords: Aldehydes / Hydrogen abstraction / Photochemistry / Radical reactions

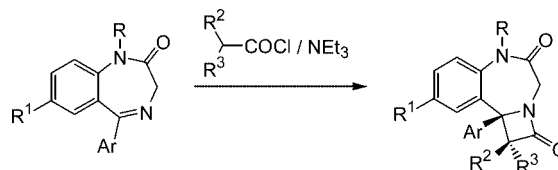


535 C. del Pozo,* A. Macías, F. López-Ortiz, M. A. Maestro, E. Alonso, J. González*



Diastereo- and Enantioselective Synthesis of Novel β -Lactam-Containing 1,4-Benzodiazepines through a Ketene–Imine Cycloaddition Reaction

Keywords: Lactams / Benzodiazepines / Ketimines / Ketenes / Cycloaddition

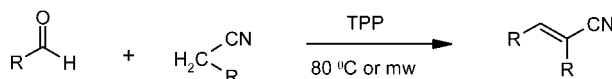


546 J. S. Yadav,* B. V. S. Reddy, A. K. Basak, B. Visali, A. V. Narsaiah, K. Nagaiah



Phosphane-Catalyzed Knoevenagel Condensation: A Facile Synthesis of α -Cyanoacrylates and α -Cyanoacrylonitriles

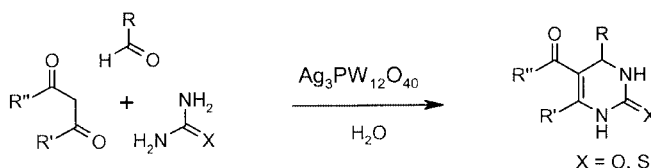
Keywords: Aldehydes / Knoevenagel reaction / Microwave activation / Phosphanes



552 J. S. Yadav,* B. V. S. Reddy, P. Sridhar, J. S. S. Reddy, K. Nagaiah, N. Lingaiah, P. S. Saiprasad

Green Protocol for the Biginelli Three-Component Reaction: $\text{Ag}_3\text{PW}_{12}\text{O}_{40}$ as a Novel, Water-Tolerant Heteropolyacid for the Synthesis of 3,4-Dihydropyrimidinones

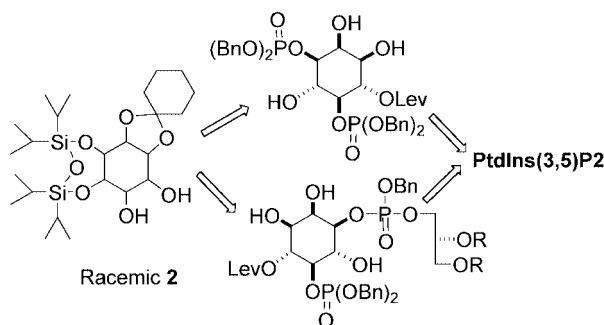
Keywords: Heteropolyacid / Multicomponent reactions / Polyoxometalates / Water media



558 F. Han, M. Hayashi, Y. Watanabe*

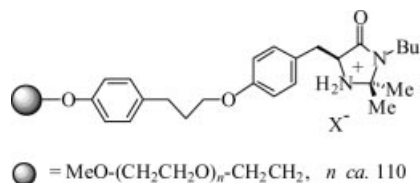
Chemical Resolution of 1,2-*O*-Cyclohexylidene-3,4-*O*-(tetraisopropylidisiloxane-1,3-diyl)-*myo*-inositol and Synthesis of Phosphatidyl-D-*myo*-inositol 3,5-Bisphosphate from Both L- and D-Enantiomers

Keywords: Enantiomers / Resolution / *myo*-Inositol derivatives / Synthesis design / Biological activity



567 A. Puglisi, M. Benaglia,* M. Cinquini,
F. Cozzi, G. Celentano

Enantioselective 1,3-Dipolar Cycloadditions of Unsaturated Aldehydes Promoted by A Poly-(ethylene glycol)-Supported Organic Catalyst

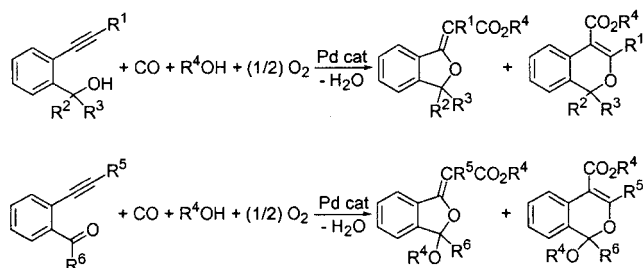


Keywords: Catalyst immobilization / Chiral organic catalysts / Cycloadditions / Polymers

574 A. Bacchi, M. Costa,* M. D. Cà,
M. Fabbricatore, A. Fazio, B. Gabriele,*
C. Nasi, G. Salerno



Synthesis of 1-(Alkoxycarbonyl)methylene-1,3-dihydroisobenzofurans and 4-(Alkoxycarbonyl)-benzo[c]pyrans by Palladium-Catalysed Oxidative Carbonylation of 2-Alkynylbenzyl Alcohols, 2-Alkynylbenzaldehydes and 2-Alkynylphenyl Ketones



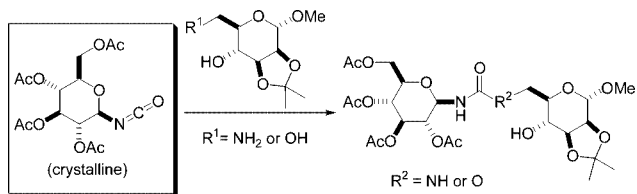
Keywords: Carbonylation / Cyclisation / Heterocycles / Palladium

586 Y. Ichikawa,* Y. Matsukawa, T. Nishiyama,
M. Isobe



Synthesis, Characterization, and Reaction of Crystalline Fischer's Glucopyranosyl Isocyanate

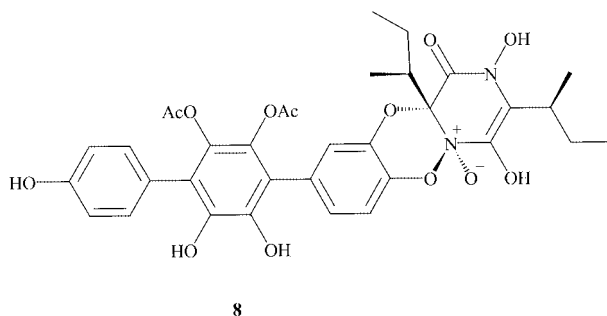
Keywords: Carbohydrates / Glycosylation / Isocyanate / Neoglycoconjugates / Synthetic methods / Urea



592 V. Cali, C. Spatafora, C. Tringali*



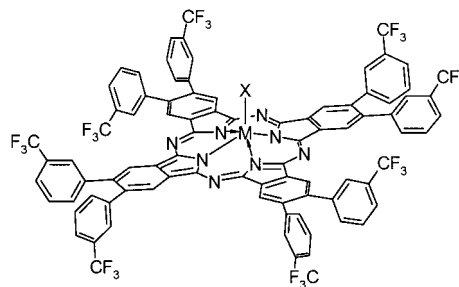
Sarcodonins and Sarcoviolins, Bioactive Polyhydroxy-*p*-terphenyl Pyrazinediol Dioxide Conjugates from Fruiting Bodies of the Basidiomycete *Sarcodon leucopus*



Keywords: Basidiomycetes / Mushrooms / Natural products / *Sarcodon leucopus* / Polyhydroxy-*p*-terphenyls

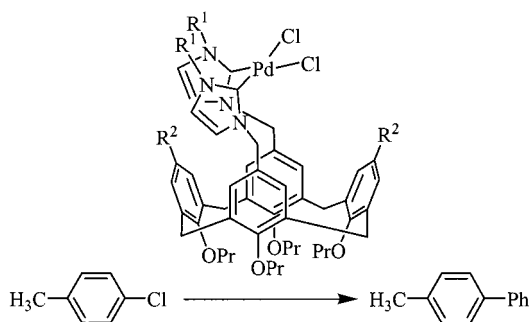
Synthesis and Some Properties of Aryl- and Aryloxy-Substituted Phthalocyanines and Their Metal Complexes: A Comparison with Porphyrazine and Naphthalocyanine Analogues

Keywords: Aryl-substituted phthalocyanines / Macrocycles / Macrocyclic ligands / Metal complexes



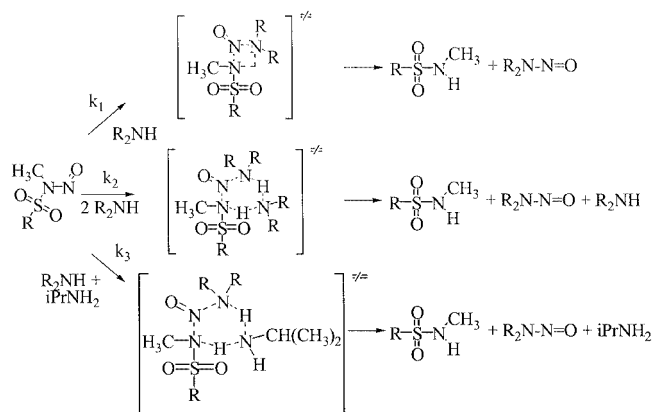
Calix[4]arene-Supported *N*-Heterocyclic Carbene Ligands as Catalysts for Suzuki Cross-Coupling Reactions of Chlorotoluene

Keywords: Calixarenes / Heterocycles / Carbenes / Cross-coupling / Palladium



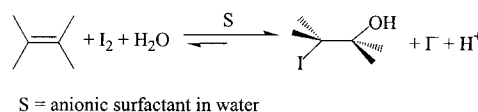
Nitrosation of Amines in Non-Aqueous Solvents – Difference Between $N-N=O$ and $O-N=O$ Nitroso Donors

Keywords: Kinetics / Mechanism / Nitrosation / Solvent effect / Sulfonamide



Supramolecular Assemblies as Promoters of Iodohydrin Formation

Keywords: Synthesis design / Surfactants / Iodohydrins / Iodine / Green chemistry

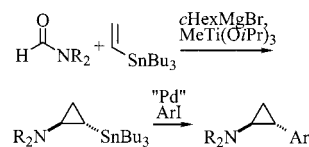


S = anionic surfactant in water

631 S. Wiedemann, K. Rauch, A. Savchenko,
I. Marek, A. de Meijere*

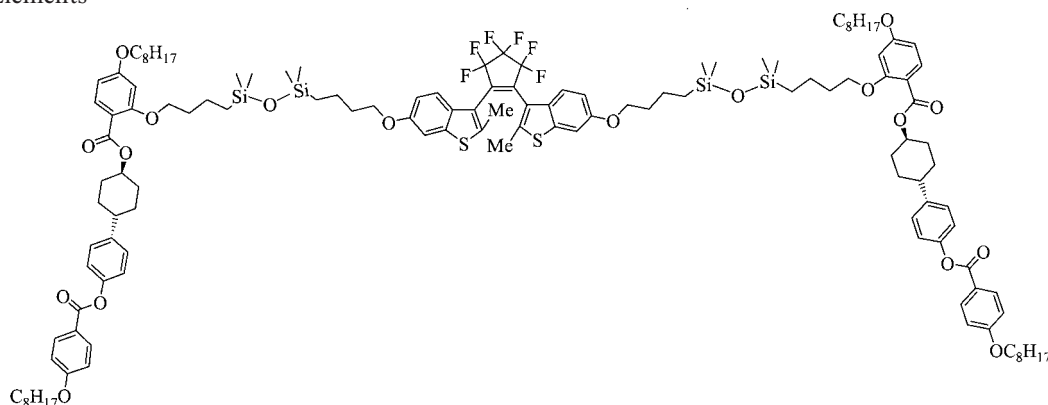
Convenient Route to 2-(Trialkylstannyl)cyclopropylamines and Their Application in Palladium-Catalyzed Cross-Coupling Reactions

Keywords: Cross-coupling / Rearrangement / Small ring systems / Tin / Titanium



636 M. Frigoli, G. H. Mehl*

Room Temperature Nematic Photoswitchable Liquid Crystals – Molecular Modularisation of Functional Elements

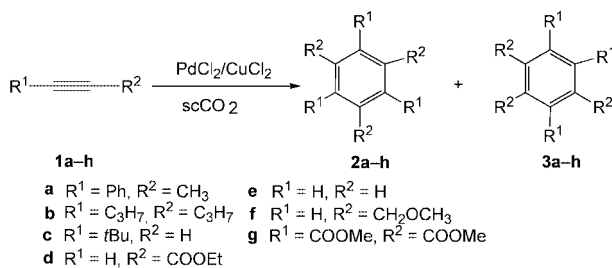


Keywords: Photochromism / Liquid crystals / Molecular switches / Siloxanes

643 J.-S. Cheng,* H.-F. Jiang

Palladium-Catalyzed Regioselective Cyclotrimerization of Acetylenes in Supercritical Carbon Dioxide

Keywords: Alkynes / Cyclotrimerization / Palladium / Regioselectivity / Supercritical fluids



647 C. Chen, C. Xi,* C. Lai, R. Wang,
X. Hong

Coupling Reactions of 1,4-Dicuprio-1,3-dienes: Formation of Carbocycles

Keywords: Copper / Cyclization / Homocoupling / Quinones

