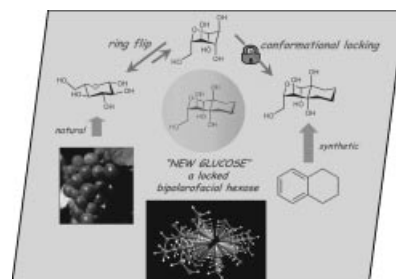


COVER PICTURE

The cover picture shows the concept of carbocyclic annulation (*trans*-ring fusion) to lock hexoses, such as β -glucose, in their unnatural *axial-rich* conformation, while retaining their natural configuration. The bipolarofacial nature of these novel cyclohexane ring *annulated sugar entities* is reflected in their channel-like supramolecular assembly in the solid state, consisting of a hydrophilic interior and a hydrophobic exterior. Details are discussed in the article by G. Mehta and S. S. Ramesh on p. 2225ff.



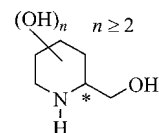
MICROREVIEWS

Contents

2159 M. S. M. Pearson, M. Mathé-Allainmat, V. Fargeas, J. Lebreton*

Recent Advances in the Total Synthesis of Piperidine Azasugars

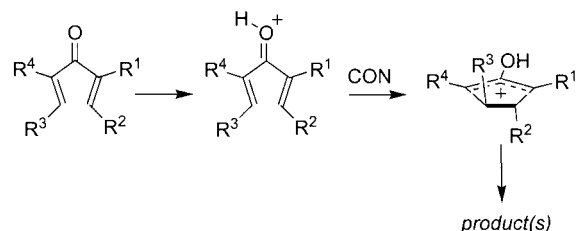
Keywords: Alkaloids / Azasugars / Glycosidase inhibitors / Total synthesis



2193 M. A. Tius*

Some New Nazarov Chemistry

Keywords: Nazarov reaction / Cyclopentanones

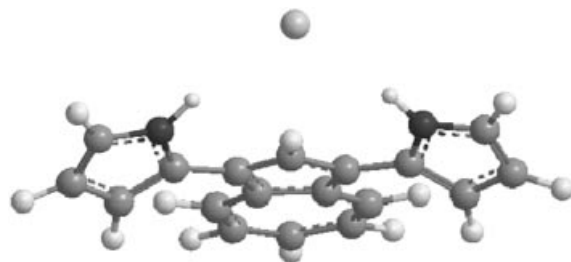


SHORT COMMUNICATIONS

2207 H. Salman, Y. Abraham, S. Tal,
S. Meltzman, M. Kapon, N. Tessler,
S. Speiser, Y. Eichen*

1,3-Di(2-pyrrolyl)azulene: An Efficient Luminescent Probe for Fluoride

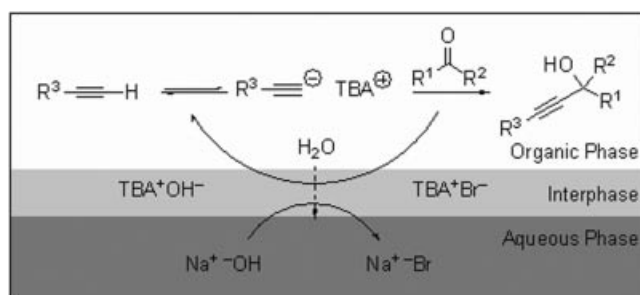
Keywords: Anions / Anion sensing / Host-Guest systems / Receptors / Supramolecular chemistry



2213 T. Weil, P. R. Schreiner*

Organocatalytic Alkynylation of Aldehydes and Ketones under Phase-Transfer Catalytic Conditions

Keywords: Alkynylation / C–C coupling / Organocatalysis / Phase-transfer catalysis / Propargylic alcohols

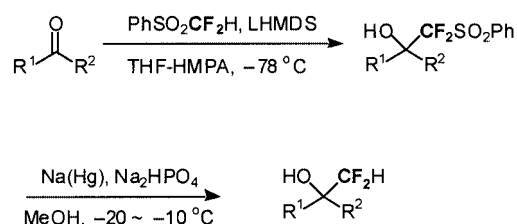


2218 G. K. Surya Prakash,* J. Hu, Y. Wang,
G. A. Olah



Convenient Synthesis of Difluoromethyl Alcohols from Both Enolizable and Non-Enolizable Carbonyl Compounds with Difluoromethyl Phenyl Sulfone

Keywords: Difluoromethyl phenyl sulfone / Nucleophilic reaction / Difluoromethylation / Fluorine / Reductive desulfonation



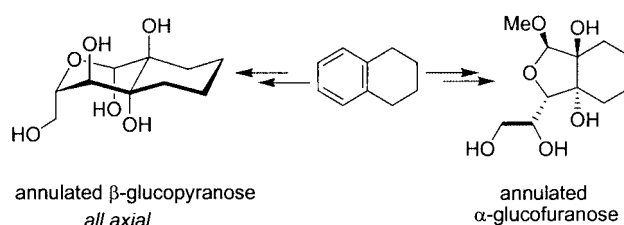
FULL PAPERS

2225 G. Mehta,* S. S. Ramesh



A New Glucose: Towards Conformationally Locked Hexoses through Annulation

Keywords: Carbohydrates / Cyclitols / Axial-rich conformations / Dihydroxylation / Ozonolysis / Stereoselectivity

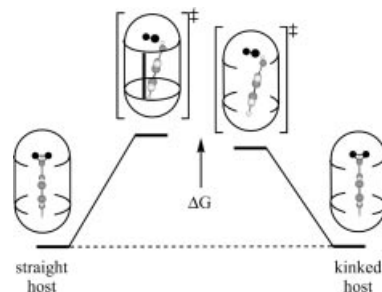


- 2239 S. Sánchez Carrera, J.-L. Kerdelhué,
K. J. Langenwalter, N. Brown, R. Warmuth*



Inner-Phase Reaction Dynamics: The Influence of Hemiacarcerand Polarizability and Shape on the Potential Energy Surface of an Inner-Phase Reaction

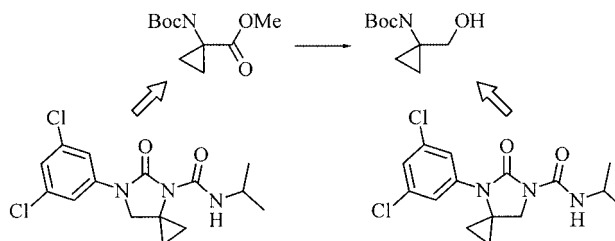
Keywords: Polarizability / Hemiacarcerand / Host–guest systems / Encapsulation / Solvent effect / Diazirines



- 2250 F. Brackmann, M. Es-Sayed, A. de Meijere*

Synthesis of Spirocyclopropanated Analogues of Iprodione

Keywords: Cyclopropanes / Cyclization / Fungicides / Heterocycles / Small ring systems / Spiro compounds

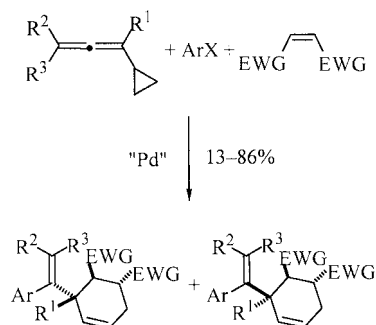


- 2259 M. Knoke, A. de Meijere*



Domino Heck–Diels–Alder Reactions of Differently Substituted Cyclopropylallenes

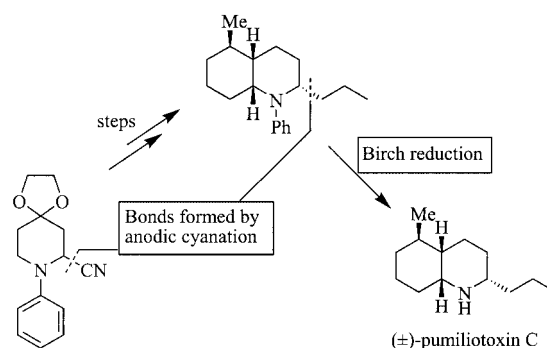
Keywords: Domino reactions / Allenes / Palladium catalysis / Cross-coupling reactions / Cycloadditions



- 2269 N. Girard, J.-P. Hurvois,* C. Moinet,
L. Toupet

Total Synthesis of (±)-Pumiliotoxin C: An Electrochemical Approach

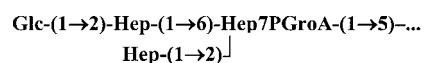
Keywords: Electrochemistry / Metalation / Natural products / Pumiliotoxin C / Total synthesis



- 2281 A. Silipo, S. Leone, A. Molinaro,*
L. Sturiale, D. Garozzo, E. L. Nazarenko,
R. P. Gorshkova, E. P. Ivanova, R. Lanzetta,
M. Parrilli

Complete Structural Elucidation of a Novel Lipooligosaccharide from the Outer Membrane of the Marine Bacterium *Shewanella pacifica*

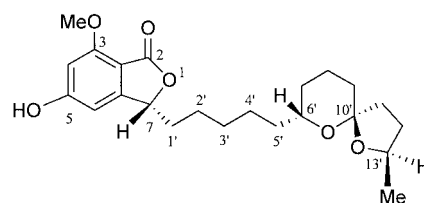
Keywords: Mass spectrometry / Natural products / NMR spectroscopy / Oligosaccharides / Structure elucidation



2292 A. Bava, M. Clericuzio, G. Giannini,
L. Malpezzi, S. V. Meille, G. Nasini*

Absolute Configuration of the Fungal Metabolite Spirolaxine

Keywords: Basidiomycetes / Secondary metabolite / Absolute configuration / Circular dichroism / Angiogenesis / Spiro compounds

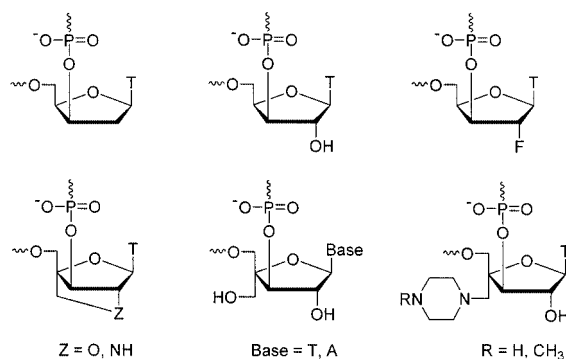


2297 B. R. Babu, Raunak, N. E. Poopeiko,
M. Juhl, A. D. Bond, V. S. Parmar,
J. Wengel*



XNA (*xylo* Nucleic Acid): A Summary and New Derivatives

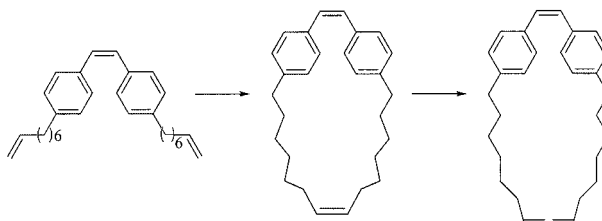
Keywords: *xylo* Nucleic acid (XNA) / 2'-Deoxy-*xylo* nucleic acid (dXNA) / Locked nucleic acid / Triple helix / Preferential RNA hybridization / *xylo*-Clamp



2322 C. E. Janßen, N. Krause*

Studies on the Synthesis of Macrocyclic Allenes by Ring Closing Metathesis and Doering–Moore–Skattebøl Reaction

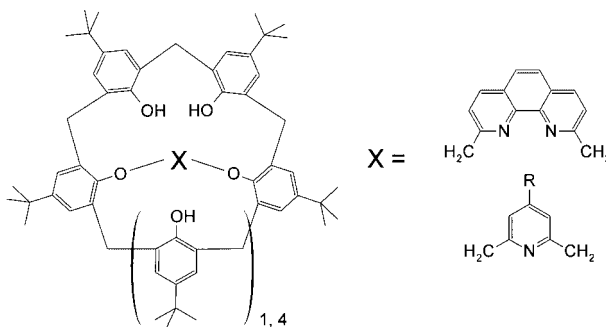
Keywords: Allenes / Cyclophanes / Doering–Moore–Skattebøl synthesis / Macrocycles / Ring-closing metathesis



2330 S. Konrad, C. Näther, U. Lünig*

Calix[5]- and Calix[8]arenes Bridged with Heterocycles

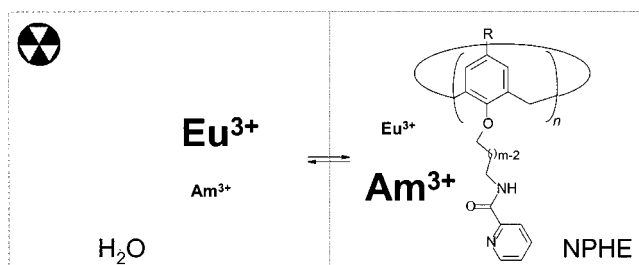
Keywords: Bridges / Calixarenes / Heterocycles / Macrocycles / Supramolecular chemistry



2338 A. Casnati,* N. Della Ca', M. Fontanella,
F. Sansone, F. Ugozzoli, R. Ungaro,
K. Liger, J.-F. Dozol

Calixarene-Based Picolinamide Extractants for Selective An/Ln Separation from Radioactive Waste

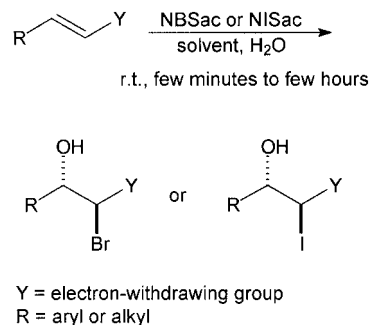
Keywords: Actinides / Lanthanides / Calixarenes / Separation / Radioactive waste



2349 D. Urankar, I. Rutar, B. Modéc, D. Dolenc*

Synthesis of Bromo- and Iodohydrins from Deactivated Alkenes by Use of *N*-Bromo- and *N*-Iodosaccharin

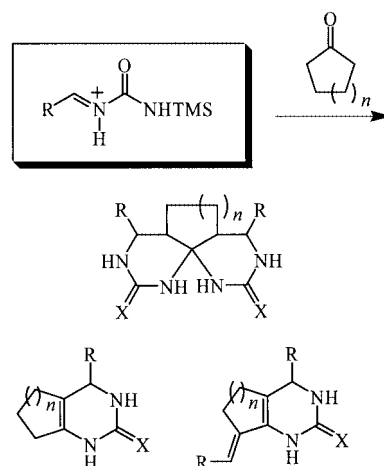
Keywords: Bromohydrins / Iodohydrins / Enones / Halogenation



2354 Y. Zhu, S. Huang, Y. Pan*

Highly Chemoselective Multicomponent Biginelli-Type Condensations of Cycloalkanones, Urea or Thiourea and Aldehydes

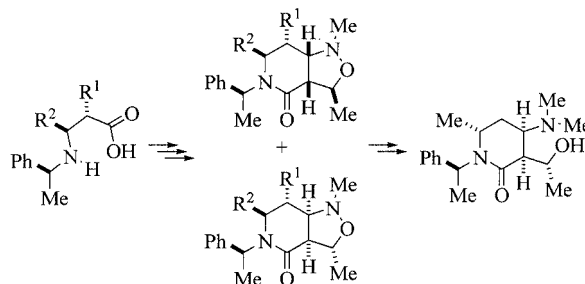
Keywords: Chemoselective Biginelli-type reaction / Cycloalkanones / Spiro heterotricyclic scaffolds



2368 R. Romeo,* D. Iannazzo, A. Piperno, M. A. Chiacchio, A. Corsaro, A. Rescifina

From Amino Acids to Enantiopure Bicyclic Isoxazolidinylpyridin-4(1*H*)-ones through Intramolecular Nitron Cycloadditions

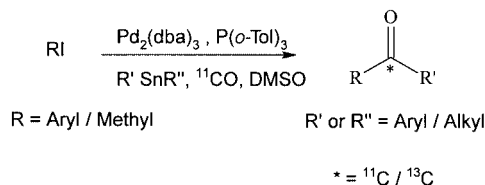
Keywords: Intramolecular 1,3-dipolar cycloadditions / Nitrones / δ -Lactams / Functionalised piperidones / PM3 semiempirical calculations



2374 F. Karimi, J. Barletta, B. Långström*

Palladium-Mediated ^{11}C -Carbonylative Cross-Coupling of Alkyl/Aryl Iodides with Organo-stannanes: An Efficient Synthesis of Unsymmetrical Alkyl/Aryl [^{11}C -carbonyl]Ketones

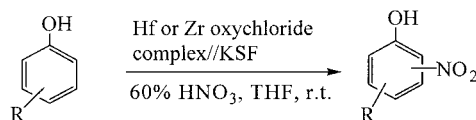
Keywords: Carbonylation / Cross-coupling / Isotopic labelling / Palladium



2379 M. Shi,* S.-C. Cui, W.-P. Yin

Highly Efficient Catalytic Nitration of Phenolic Compounds by Nitric Acid with a Recoverable and Reusable Zr or Hf Oxychloride Complex and KSF

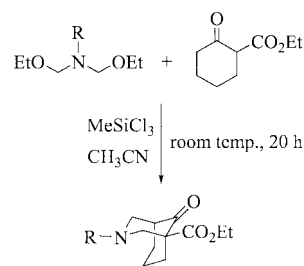
Keywords: Hafnium / Heterogeneous catalysis / Montmorillonite / Nitration / Phenolic compounds / Zirconium



2385 M. A. Brimble,* C. Brocke

Efficient Synthesis of the Azabicyclo[3.3.1]nonane Ring System in the Alkaloid Methyllycaconitine Using Bis(alkoxymethyl)alkylamines as Aminoalkylating Agents in a Double Mannich Reaction

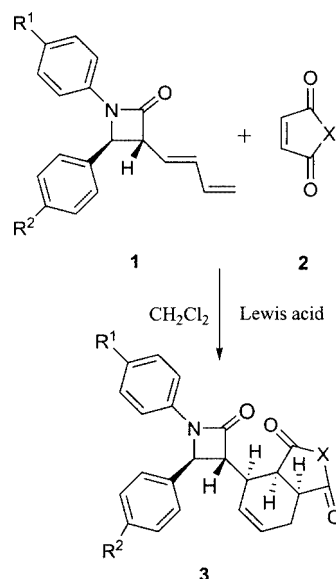
Keywords: Alkaloids / Mannich bases / Aminoalkylation / Synthetic methods



2397 G. Bhargava, M. P. Mahajan,* T. Saito, T. Otani, M. Kurashima, K. Sakai

Highly Diastereoselective and Remarkably π -Facially Selective Lewis Acid-Catalysed Diels–Alder Cycloaddition Reactions: Access to Novel 1,3,4-Trisubstituted 2-Azetidinones

Keywords: β -Lactams / Dienyl- β -lactams / Lewis acids / Diels–Alder reactions / Diastereoselectivity / π -Facial selectivity



2406 F. R. Sensato,* R. Custodio, E. Longo, V. S. Safont, J. Andrés

Why Do Peroxomolybdenum Complexes Chemoselectively Oxidize the Sulfur Centers of Unsaturated Sulfides and Sulfoxides? A DFT Analysis

Keywords: O–O Activation / Molybdenum / Reaction mechanism / Density functional calculations / Peroxo ligands

