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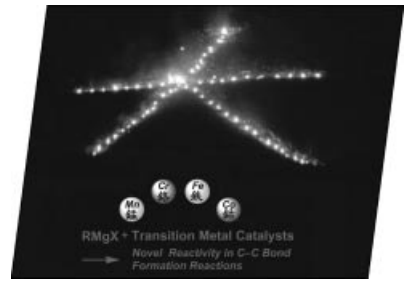
COVER PICTURE

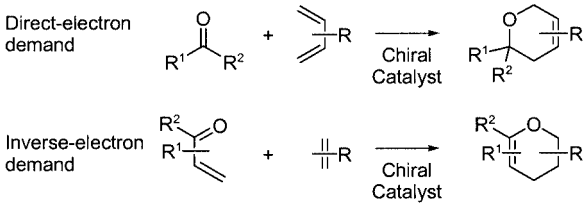
The cover picture shows a concept that the combination of a Grignard reagent (RMgX) with various transition metal catalysts opens up an opportunity to explore new reactions for carbon–carbon bond formation. Grignard reagents are the most classical organometallics and useful compounds in organic synthesis. The addition of transition metal salts to this classic reagent gives novel reaction patterns such as carbometallation, rearrangement, electron transfer, cross-coupling, and so forth. Manganese-, chromium-, iron-, and cobalt-catalyzed carbon–carbon bond formation reactions with Grignard reagents are discussed in the Microreview by H. Shinokubo and K. Oshima on p. 2081 ff.



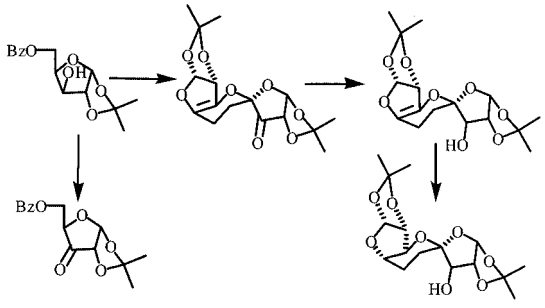
MICROREVIEWS

Contents

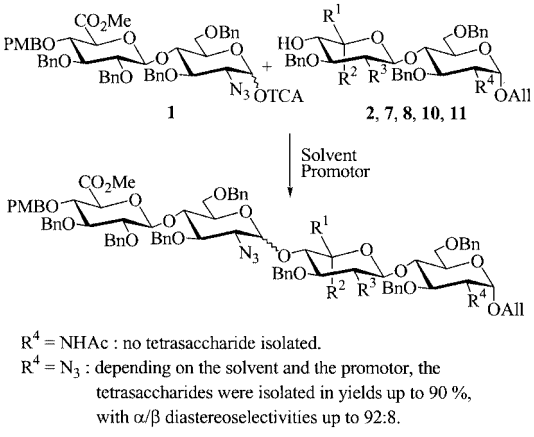
Keywords: Chromium / Cobalt / Grignard reagent / Iron / Manganese



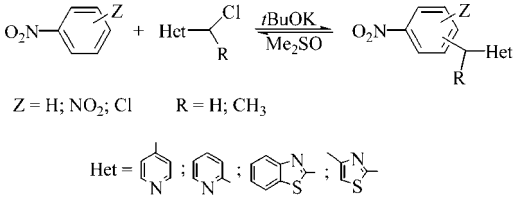
SHORT COMMUNICATION



FULL PAPERS



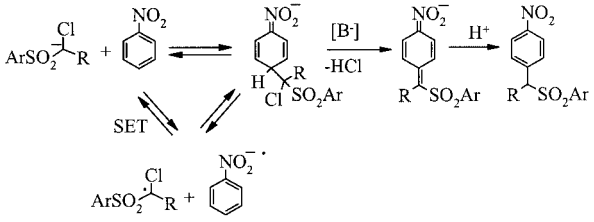
R^4 = NHAc : no tetrasaccharide isolated.
R^4 = N_3 : depending on the solvent and the promotor, the tetrasaccharides were isolated in yields up to 90 %, with α/β diastereoselectivities up to 92:8.



2125 M. Mąkosza,* A. Kwast

Direct Nucleophilic Addition versus a Single-Electron Transfer Pathway of σ^H Adduct Formation in Vicarious Nucleophilic Substitution of Hydrogen

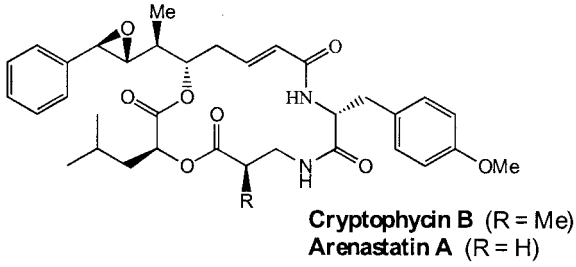
Keywords: Carbanions / Nucleophilic addition / Nucleophilic substitution / Electron transfer



2131 A. K. Ghosh,* A. Bischoff

Asymmetric Syntheses of Potent Antitumor Macrolides Cryptophycin B and Arenastatin A

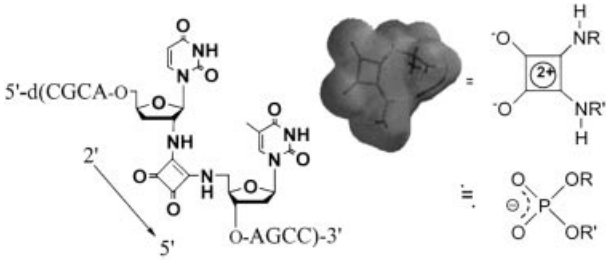
Keywords: Natural products / Cryptophycins / Arenastatin A / Asymmetric synthesis / Aldols



2142 K. Sato, R. Tawarada, K. Seio, M. Sekine*

Synthesis and Structural Properties of New Oligodeoxynucleotide Analogues Containing a 2′,5′-Internucleotidic Squaryldiamide Linkage Capable of Formation of a Watson−Crick Base Pair with Adenine and a Wobble Base Pair with Guanine at the 3′-Downstream Junction Site

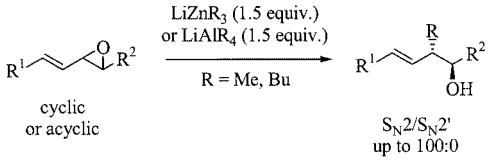
Keywords: Hybridization / Hydrogen bonds / Phosphate mimic / Squaric acid / Watson−Crick base pair / Wobble base pair



2151 O. Equey, E. Vrancken, A. Alexakis*

Regioselective S_N2 Opening of Vinylic Epoxides with Trialkylzincates and Trialkylaluminates

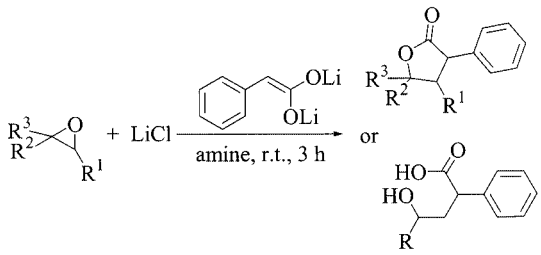
Keywords: Aluminum / Nucleophilic substitution / Regioselectivity / Vinylic epoxides / Zinc



2160 S. Gil, M. Torres, N. Ortúzar, R. Wincewicz, M. Parra*

Efficient Addition of Acid Enediolates to Epoxides

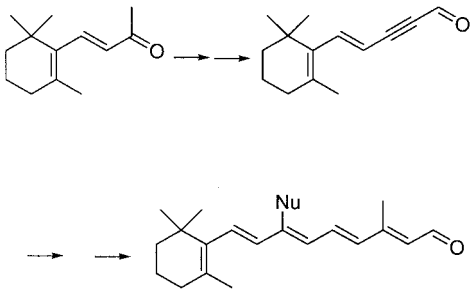
Keywords: Lactones / Lithium chloride / Nucleophilic addition / Regioselectivity / Diastereoselectivity



2166 Y. Wang, W. S. Woo, I. van der Hoef, J. Lugtenburg*

9-Demethyl-9-haloretinals by Wadsworth–Emmons Coupling – Easy Preparation of Pure (*all-E*), (9*Z*) and (11*Z*) Isomers

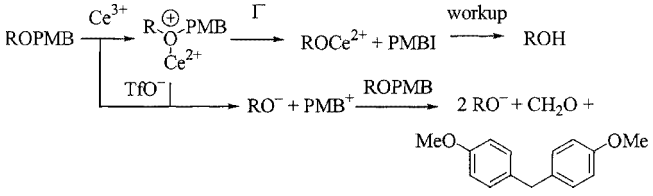
Keywords: Diphenyl phosphonate reagents / Visual analogues / Stereo isomeric synthesis / Synthetic methods / Isomers



2176 G. Bartoli, R. Dalpozzo, A. De Nino,* L. Maiuolo, M. Nardi, A. Procopio, A. Tagarelli

Cerium(III) Triflate versus Cerium(III) Chloride: Anion Dependence of Lewis Acid Behavior in the Deprotection of PMB Ethers

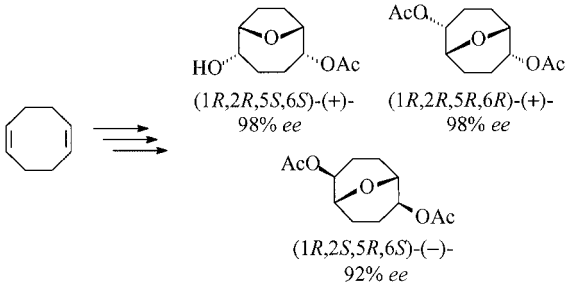
Keywords: Cerium / Triflate / *p*-Methoxybenzyl ethers / Deprotection / Lewis acids



2181 K. Hegemann, R. Fröhlich, G. Haufe*

Synthesis of Enantiopure 9-Oxabicyclononanediol Derivatives by Lipase-Catalyzed Transformations and Determination of Their Absolute Configuration

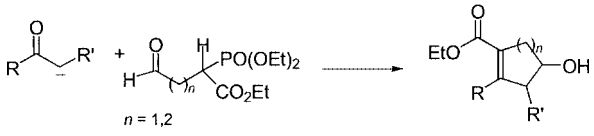
Keywords: Alcohols / Chiral resolution / Diols / Enantioselectivity / Lipases / Polycycles



2193 G. A. Kraus,* P. K. Choudhury

Phosphonate Aldehyde Annulation – A One-Pot Synthesis of Hydroxycycloalkenoic Esters – Application to Analogs of Glycinoeclepin A

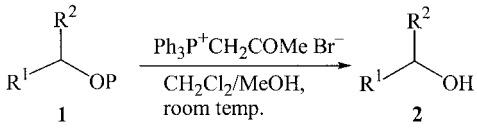
Keywords: Anions / Annulation / Synthetic methods



2198 A. T. Khan,* S. Ghosh, L. H. Choudhury

A Simple and Useful Synthetic Protocol for Selective Deprotection of *tert*-Butyldimethylsilyl (TBS) Ethers

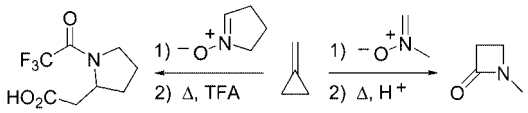
Keywords: Deprotection / Ethers / Protecting groups / Synthesis design



2205 F. M. Cordero,* M. Salvati, F. Pisaneschi, A. Brandi*

Novel Prospects of the Acidic Thermal Rearrangement of Spiro[cyclopropane-1,5′-isoxazolidines] to β-Lactams

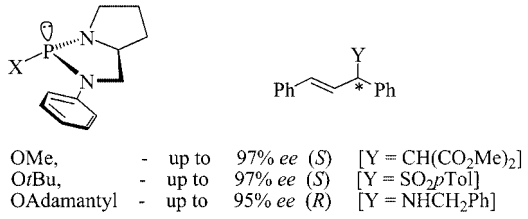
Keywords: β-Lactams / β-Homoproline / Cycloaddition / Small ring systems / Spiro compounds



2214 V. N. Tsarev,* S. E. Lyubimov, A. A. Shiryaev, S. V. Zheglov, O. G. Bondarev, V. A. Davankov, A. A. Kabro, S. K. Moiseev, V. N. Kalinin, K. N. Gavrilov

P-Chiral Monodentate Diamidophosphites − New and Efficient Ligands for Palladium-Catalysed Asymmetric Allylic Substitution

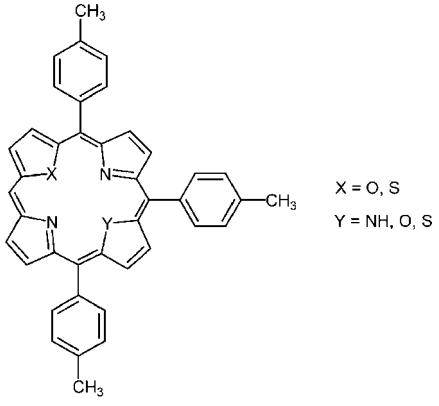
Keywords: Allylic substitution / Asymmetric catalysis / P ligands / Palladium / Rhodium



2223 S. Punidha, N. Agarwal, R. Burai, M. Ravikanth*

Synthesis of N_3S, N_3O, N_2S_2, N_2O_2, N_2SO and N_2OS Porphyrins with One *meso*-Unsubstituted Carbon

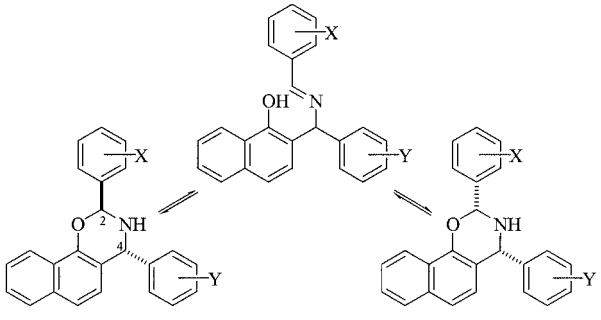
Keywords: Porphyrins / Heck reaction / Synthetic methods / Thiophenes / Furan diols



2231 I. Szatmári, T. A. Martinek, L. Lázár, F. Fülöp*

Synthesis of 2,4-Diaryl-3,4-dihydro-2*H*-naphth-[2,1-*e*][1,3]oxazines and Study of the Effects of the Substituents on Their Ring-Chain Tautomerism

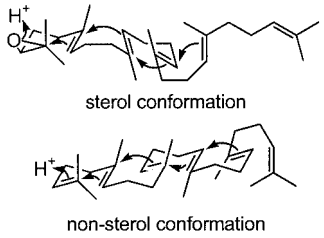
Keywords: Amino alcohols / Mannich bases / Heterocycles / Tautomerism / Substituent effects



2239 B. A. Hess, Jr.

Formation of the B Ring in Steroids and Hopanoids from Squalene

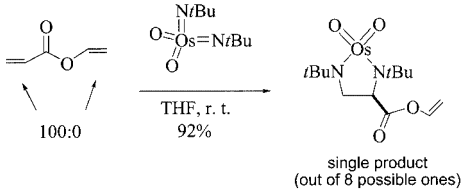
Keywords: Density functional calculations / Steroids / Conformational analysis / Terpenoids / Reaction mechanisms



2243 K. Muñiz

Electronic Effects in Olefin Oxidation by Imido-osmium(VIII) Compounds

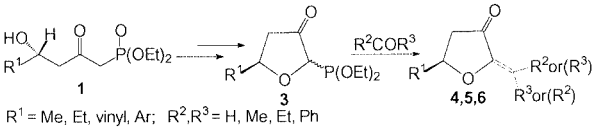
Keywords: Osmium / Oxidations / Imido compounds / Diamination / Heterocycles



2253 C. Xu, Y. Zhang, C. Yuan*

A New and Convenient Route to Optically Active 2-Phosphoryl-3-oxo-5-alkyl/-aryltetrahydrofurans and Their Reactions

Keywords: Tetrahydrofurans / Horner−Wadsworth−Emmons reactions / Rhodium catalyst / O−H Insertion reaction

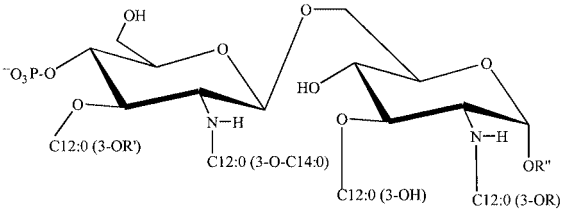


2263 A. Silipo, L. Sturiale, D. Garozzo, C. de Castro, R. Lanzetta, M. Parrilli, W. D. Grant, A. Molinaro

Structure Elucidation of the Highly Heterogeneous Lipid A from the Lipopolysaccharide of the Gram-Negative Extremophile Bacterium *Halomonas Magadiensis* Strain 21 M1

Keywords: *Halomonas magadiensis* / Extremophilic bacteria / Lipid A / NMR spectroscopy / Mass spectrometry

	1a	1b	2a	2b	3	4a	4b	5a	5b	6	7	8a	8b
R	C10:0	C10:0	H	H	C10:0	H	H	C10:0	C10:0	H	H	H	H
R'	C16:0	C18:1	C16:0	C18:1	H	C16:0	C18:1			H			
R''	PO_3^{--}	PO_3^{--}	PO_3^{--}	PO_3^{--}	PO_3^{--}	PO_3^{--}	PO_3^{--}	PO_3^{--}	H	PO_3^{--}	PO_3^{--}	PO_3^{--}	H



2272 A. C. Benniston,* A. Harriman, D. J. Lawrie, S. A. Rostron

A Closely-Coupled Pyrene Dimer Having Unusually Intense Fluorescence

Keywords: Fluorescence / Sensors / Pyrene / Charge transfer / Glaser coupling