

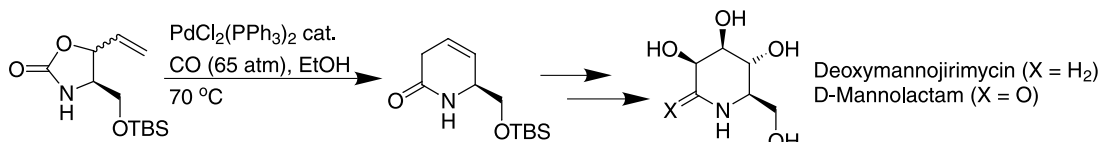
Graphical abstracts

Total synthesis of deoxymannojirimycin and D-mannolactam via carbonylation of 5-vinyloxazolidin-2-ones

Julian G. Knight* and Kirill Tchabanenko

School of Natural Sciences, Newcastle University, Bedson Building, Newcastle upon Tyne NE1 7RU, UK

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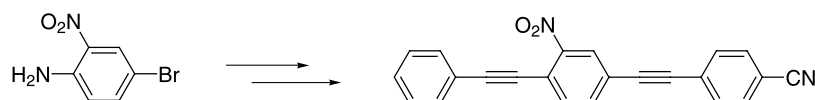


Synthesis of nitrile-terminated potential molecular electronic devices

Shawn M. Dirk and James M. Tour*

Department of Chemistry and Center for Nanoscale Science and Technology, MS-222, Rice University, 6100 Main St., Houston, TX 77005, USA

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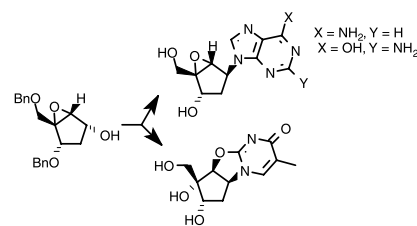
Synthesis of conformationally locked carbocyclic nucleosides built on an oxabicyclo[3.1.0]hexane system

María J. Comin,^a Juan B. Rodríguez,^{a,*} Pam Russ^b
and Victor E. Marquez^{b,*}

^aDepartamento de Química Orgánica, Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Pabellón 2, Ciudad Universitaria, 1428 Buenos Aires, Argentina

^bLaboratory of Medicinal Chemistry, Center for Cancer Research, National Cancer Institute at Frederick, 376 Boyles St, Bldg 376, Rm 104, Frederick, MD 21702-1201, USA

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Efficient synthesis of N-acylarenesulfenamides by acylation of arenesulfenamides

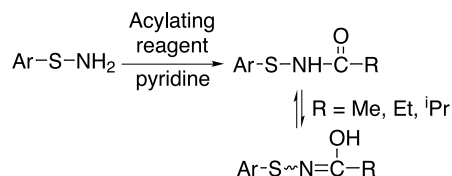
Ming Bao,^a Masao Shimizu,^{a,*} Shigeru Shimada^a and Masato Tanaka^{a,b}

^aNational Institute of Advanced Industrial Science and Technology (AIST), Tsukuba Central 5, 1-1-1 Higashi, Tsukuba, Ibaraki 305-8565, Japan

^bChemical Resources Laboratory, Tokyo Institute of Technology, 4259 Nagatsuda, Midori-ku, Yokohama 226-8503, Japan

Acylation reagent: perfluorocarboxylic anhydrides; acid chlorides

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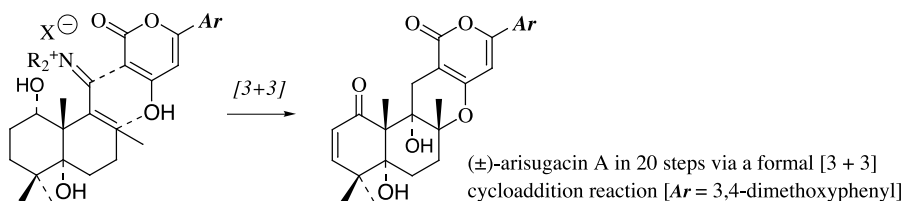
The total synthesis of (\pm)-arisugacin A

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Richard P. Hsung,* Kevin P. Cole, Luke R. Zehnder, Jiashi Wang, Lin-Li Wei, Xiao-Fang Yang and Heather A. Coverdale

Department of Chemistry, University of Minnesota, 207 Pleasant Street S.E., Minneapolis, MN 55455-0431, USA

A 20-step total synthesis of (\pm)-arisugacin A with an overall yield of 2.1% is described here in detail. This synthesis features a formal [3+3] cycloaddition reaction of α,β -unsaturated iminium salts with 6-aryl-4-hydroxy-2-pyrones through a highly stereoselective 6 π -electron electrocyclic ring-closure of 1-oxatriene.

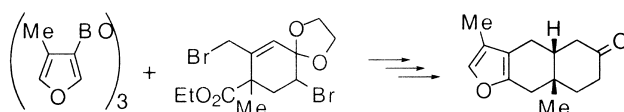


Regiospecific substitution of the carbon–boron bond of *tris*(4-trimethylsilylfuran-3-yl)boroxine and *tris*(4-methylfuran-3-yl)boroxine. Model approaches towards sesquiterpenoid furanoeudesmanes

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Chung-Yan Yick, Tsun-Keung Tsang and Henry N. C. Wong*

Department of Chemistry, Institute of Chinese Medicine, and Central Laboratory of the Institute of Molecular Technology for Drug Discovery and Synthesis, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong SAR, People's Republic of China



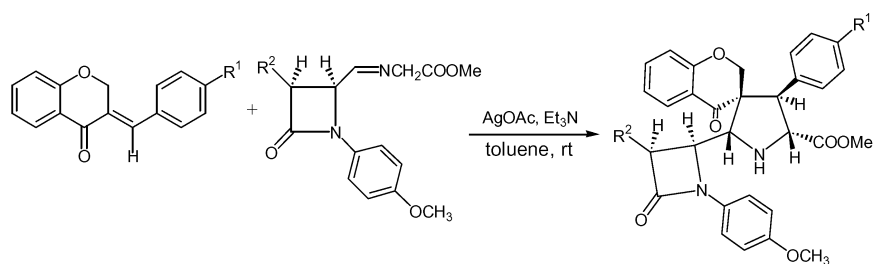
Stereoselective synthesis of 5-(4¹-azetidinyl)-proline esters via 1,3-dipolar cycloaddition reaction of *N*-metalated azomethine ylides

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G. Subramaniyan,^a R. Raghunathan^{a,*} and Ana M. Martin Castro^b

^aDepartment of Organic Chemistry, University of Madras, Guindy Campus, Chennai 600 025, India

^bDepartamento de Química Organica, Universidad Autonoma de Madrid, Cantoblanco, 28049 Madrid, Spain



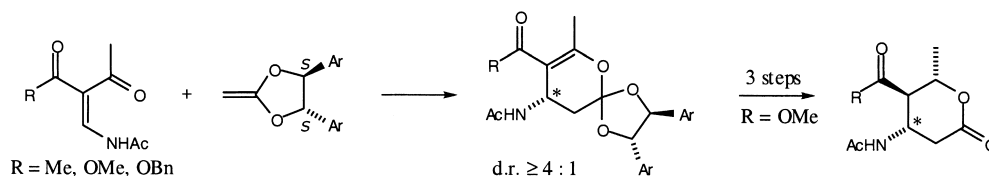
Stereoselective routes to substituted β -amino carbonyl compounds via heterodiene [4 π +2 π] cycloadditions of auxiliary-based C_2 symmetric ketene acetals

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Peter Leeming,^a Colin A. Ray,^a Stephen J. Simpson,^a Timothy W. Wallace^{a,*} and Richard A. Ward^b

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^bSynthetic Chemistry, GlaxoSmithKline Medicines Research Centre, Gunnels Wood Road, Stevenage SG1 2NY, UK



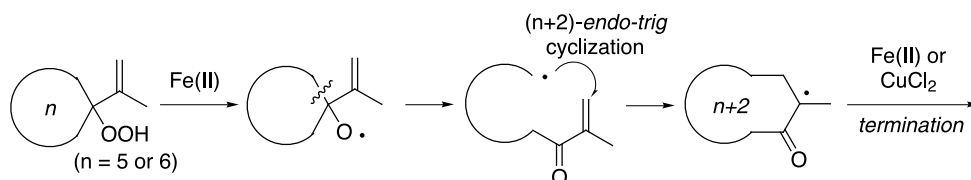
Regioselective radical cyclization initiated by the reaction of allylic hydroperoxides with iron(II) sulfate

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Araki Masuyama,^{a,*} Tomohiro Sugawara,^a Masatomo Nojima^a and Kevin J. McCullough^{b,*}

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^bDepartment of Chemistry, Heriot-Watt University, Edinburgh EH14 4AS, Scotland, UK



Synthesis of the C1-side chain of zaragozic acid D and progress towards a total synthesis

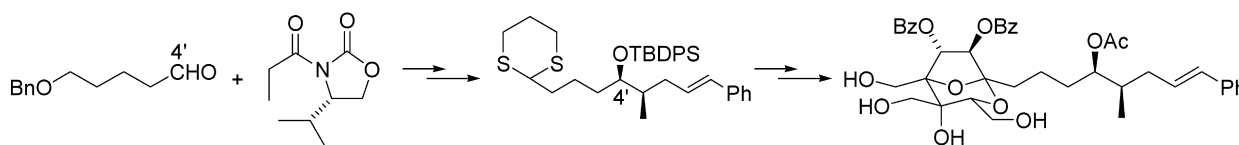
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Alan Armstrong,^{a,b,*} Paul A. Barsanti,^a Toby J. Blench^{a,b} and Ron Ogilvie^c

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^bDepartment of Chemistry, Imperial College, South Kensington, London SW7 2AY, UK

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Reduction of 6/7-substituted 3-phenyltrop-3-en-2-ones: stereoselectivity and conformational analysis of the products

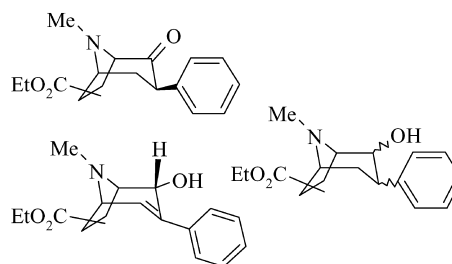
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Anu J. Airaksinen,^{a,*} Jarkko Lipsonen,^a Markku Ahlgren,^b Pirjo Vainiotalo,^b Kim A. Bergström,^c Reino Laatikainen^a and Jouko Vepsäläinen^a

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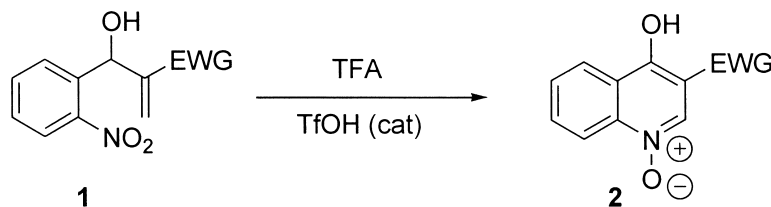


Synthesis of 3-substituted-4-hydroxyquinoline N-oxides from the Baylis–Hillman adducts of *o*-nitrobenzaldehydes

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Ka Young Lee, Jeong Mi Kim and Jae Nyong Kim*

Department of Chemistry and Institute of Basic Science, Chonnam National University, Kwangju 500-757, South Korea

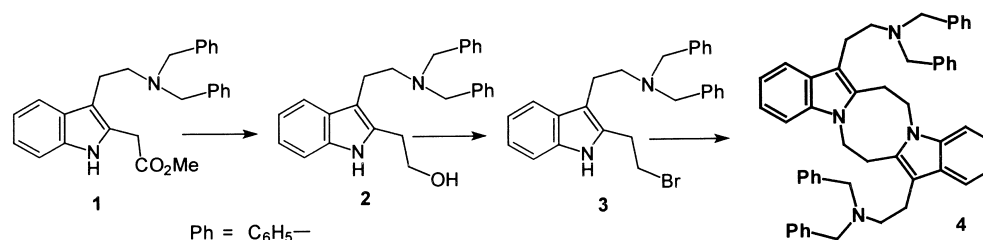


6,7,14,15-Tetrahydro[1,5]diazocino[1,2-*a*:6,5-*a'*]diindole. Synthesis of a novel pentacyclic ring system

Kittisak Sripha and Darius Paul Zlotos*

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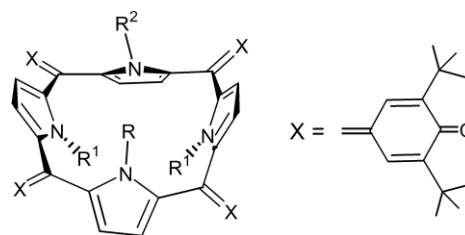
Porphotetramethenes with 1,3-alternate conformation of pyrrole rings from oxidative *N*-alkylation of porphyrin tetraphenols

Eduard Dolušić,^a Suzanne Toppet,^a Stefan Smeets,^a Luc Van Meervelt,^a Bernard Tinant^b and Wim Dehaen^{a,*}

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^bDepartment of Chemistry, Université Catholique de Louvain, 1 Place Louis Pasteur, B-1348 Louvain-La-Neuve, Belgium

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Aloeresin H, a new polyketide constituent of Cape aloe

Paolo Manitto,^{a,*} Giovanna Speranza,^{a,*} Nunziatina De Tommasi,^b Emanuele Ortoleva^c and Carlo F. Morelli^a

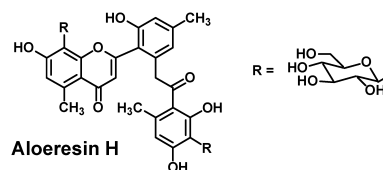
^aDipartimento di Chimica Organica e Industriale, Università degli Studi di Milano, via Venezian 21, I-20133 Milano, Italy

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Structure determined on the basis of chemical degradations and spectroscopic data



Hydroxylation of sesquiterpenes by enzymes from chicory (*Cichorium intybus* L.) Roots

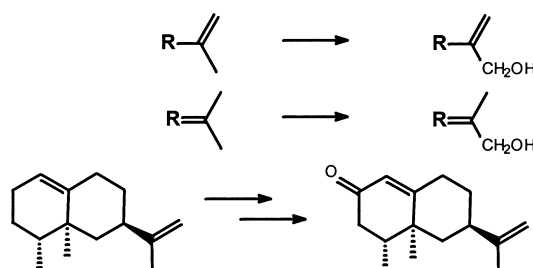
Jan-Willem de Kraker,^{a,b} Marloes Schurink,^{a,b} Maurice C. R. Franssen,^{a,*} Wilfried A. König,^c Aede de Groot^a and Harro J. Bouwmeester^b

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Chemistry of *N*-functionalized spirodihydroquinolines.

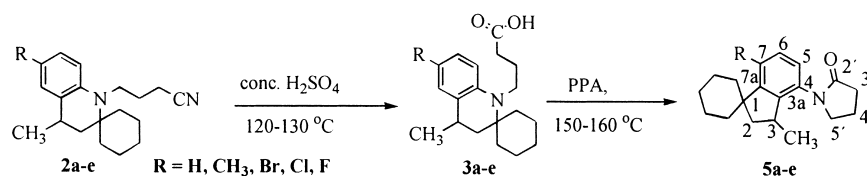
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Unusual access to the 3-methyl-4-(2-oxo-pyrrolidinyl-1)spiro[indane-1,1'-cyclohexanes] from 1-(3-cyanopropyl)-3,4-dihydrospiro[quinoline-2,1'-cyclohexanes]

Vladimir Kouznetsov,^{a,*} Alirio Palma,^a Wilson Roza,^a Elena Stashenko,^a Ali Bahsas^b and Juan Amaro-Luis^b

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^bLaboratorio de RMN, Grupo de Productos Naturales, Departamento de Química, Universidad de los Andes, Mérida 5101, Venezuela



Structurally isomeric two pyridino macrocycles: complexation and structures

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