



Tetrahedron Vol. 65, Issues 29–30, 2009

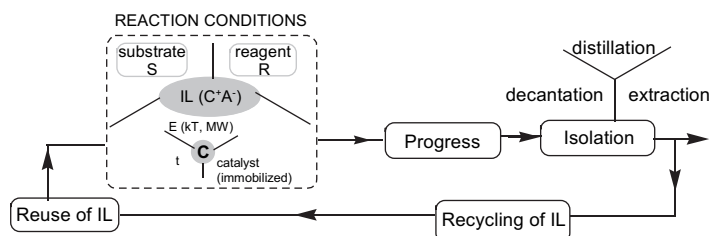
Contents

REPORT

Halogenation of organic compounds in ionic liquids

pp 5625–5662

Jasminka Pavlinac, Marko Zupan, Kenneth K. Laali*, Stojan Stavber*



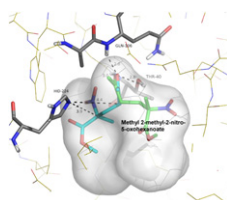
The review summarizes, compares and analyzes the data available on halogenation reactions in ionic liquid media.

ARTICLES

Investigation of lipase-catalyzed Michael-type carbon–carbon bond formations

pp 5663–5668

Gernot A. Strohmeier, Tanja Sović, Georg Steinkellner, Franz S. Hartner, Aleksandra Andryushkova, Thomas Purkarthofer, Anton Glieder, Karl Gruber, Herfried Griengl*



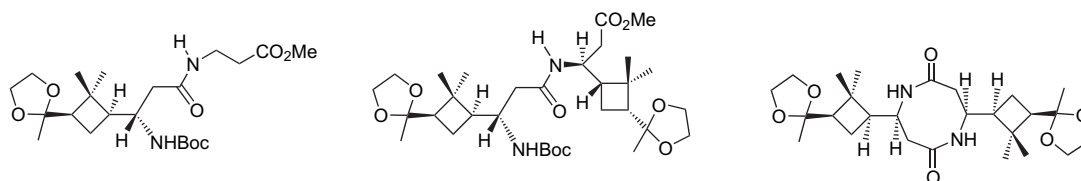
Lipase-catalyzed Michael additions of activated alkenes and carbon-nucleophiles were performed in organic solvents. Conversions up to completion were obtained within 20 h at room temperature. However, no enantioselectivity was observed. Molecular modelling experiments give an insight into the putative catalytic processes.



Synthesis and structural study of novel dimethylcyclobutyl β -peptides

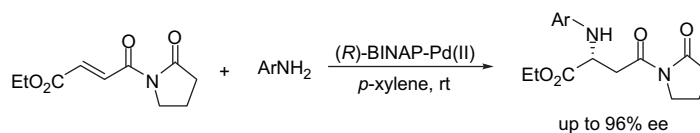
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Elisabeth Torres, Carles Acosta-Silva, Federico Rúa, Ángel Álvarez-Larena, Teodor Parella, Vicenç Branchadell*, Rosa M. Ortuno*

**Catalytic enantioselective conjugate addition of aromatic amines to fumarate derivatives: asymmetric synthesis of aspartic acid derivatives**

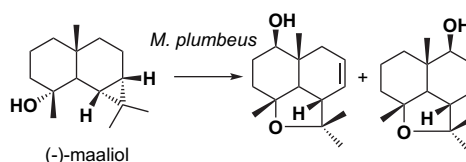
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Seung Hee Kang, Young Ku Kang, Dae Young Kim*

**Microbial transformation of the sesquiterpenoid (–)-maaliol by *Mucor plumbeus***

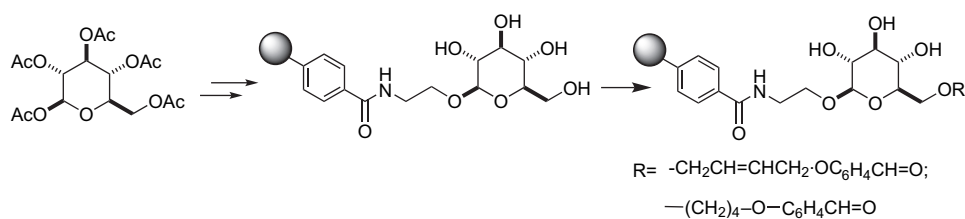
pp 5680–5683

Yanmei Wang*, Teck-Koon Tan, Geok Kheng Tan, Joseph D. Connolly, Leslie J. Harrison

**Nanostructured styrenic co-polymers containing glucopyranosyl residues and their functionalization**

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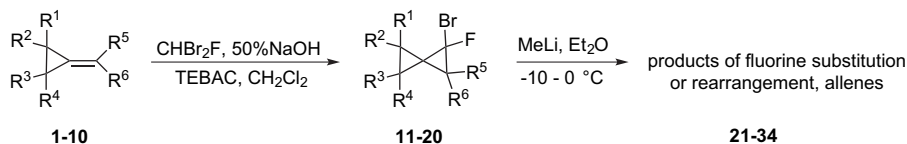
Marco Pucci*, Silvana Alfei, Francesco Lucchesini, Vincenzo Bertini, Barbara Idini



Unusual methylation reaction of *gem*-bromofluorospirpentanes with methyllithium

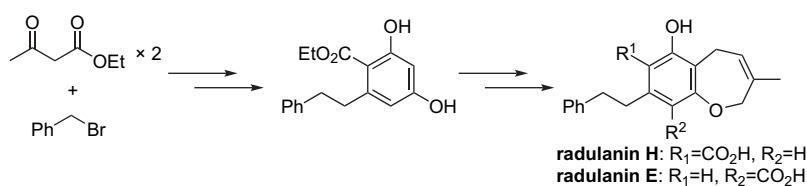
pp 5693–5701

Elena B. Averina, Kseniya N. Sedenkova, Ilya S. Borisov, Yuri K. Grishin, Tamara S. Kuznetsova*, Nikolai S. Zefirov

**Total synthesis of radulanin H and proposed structure of radulanin E**

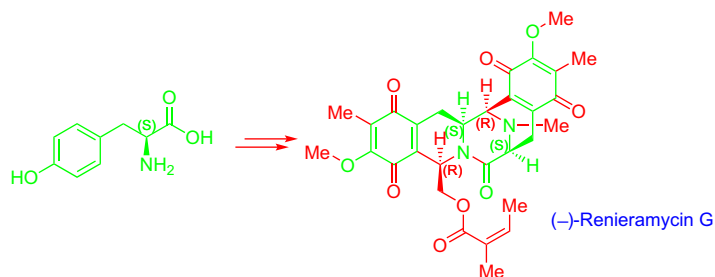
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Masahiro Yoshida*, Koji Nakatani, Kozo Shishido

**Total synthesis of (–)-renieramycin G from L-tyrosine**

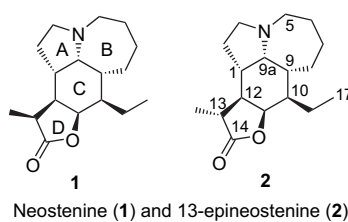
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Xiang Wei Liao, Wei Liu, Wen Fang Dong, Bao He Guan, Shi Zhi Chen, Zhan Zhu Liu*

**Total synthesis of (±)-13-epineostenine**

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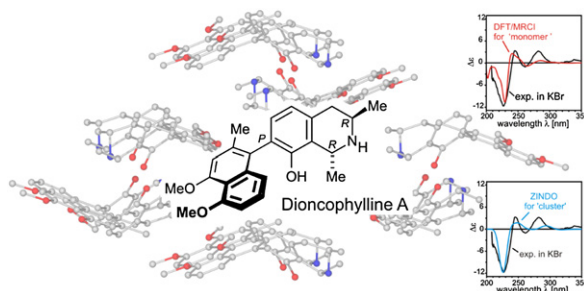
Meng Tang, Chun-An Fan, Fu-Min Zhang, Yong-Qiang Tu*



Quantum chemical CD calculations of dioncophylline A in the solid state

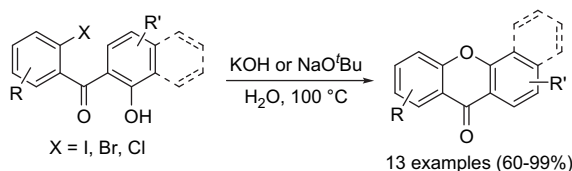
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Gerhard Bringmann*, Katja Maksimenka, Torsten Bruhn, Matthias Reichert, Takunori Harada, Reiko Kuroda*

**A convenient approach to the xanthone scaffold by an aqueous aromatic substitution of bromo- and iodoarenes**

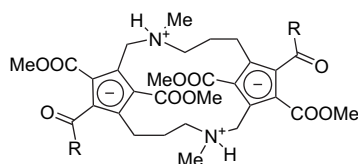
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Nekane Barbero, Raul SanMartin*, Esther Domínguez*

**Formation of [5.5]cyclopentadienidophanes by macrocyclization of [3-(methyllummonio)propyl]-cyclopentadienides under Mannich conditions**

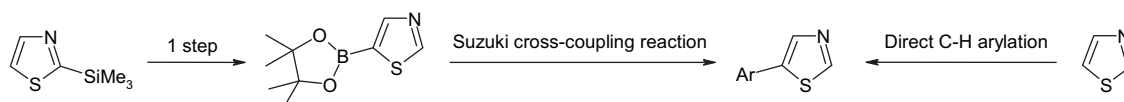
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Gerhard Maas*, Andreas Müller, Andreas Endres, Jürgen Schatz

**Synthesis of 5-arylthiazoles. Comparative study between Suzuki cross-coupling reaction and direct arylation**

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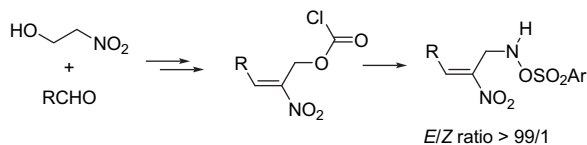
Nicolas Primas, Alexandre Bouillon, Jean-Charles Lancelot, Hussein El-Kashef, Sylvain Rault*



O-Arylsulfonyl hydroxylamines via a decarboxylative rearrangement

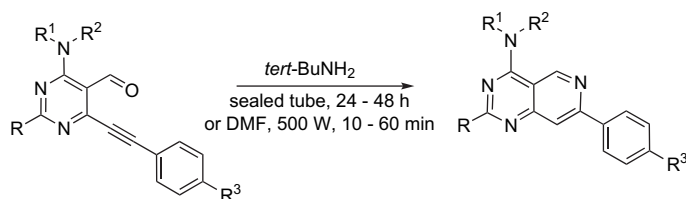
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Stefania Fioravanti*, Lucio Pellacani*, Paolo A. Tardella*

**Study on the cyclization of 6-arylethynylpyrimidine-5-carbaldehydes with *tert*-butylamine: microwave versus thermal preparation of pyrido[4,3-*d*]pyrimidines**

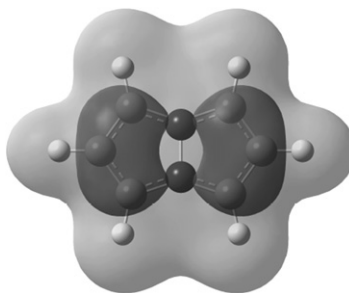
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Inga Cikotiene*, Visvaldas Kairys, Rita Buksnaitiene, Marius Morkunas, Simonas Rudys, Algirdas Brukstus, Miguel X. Fernandes

**Theoretical studies of azapentalenes. Part 4: Theoretical study of the properties of 3a,6a-diazapentalene**

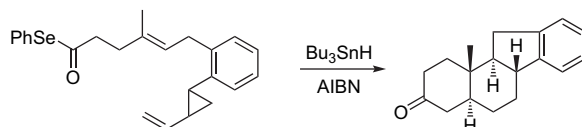
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Ibon Alkorta, Fernando Blanco*, José Elguero

**A synthetic approach to C-nor-D-homosteroids based on a cascade of radical cyclisations from a vinylcyclopropane-substituted acyl radical precursor**

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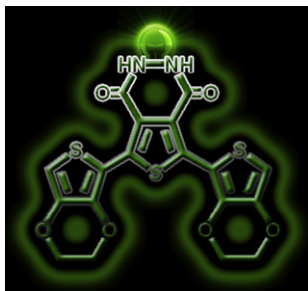
Gerald Pattenden*, Davey A. Stoker, Johan M. Winne



Synthesis and properties of a novel redox driven chemiluminescent material built on a terthienyl system

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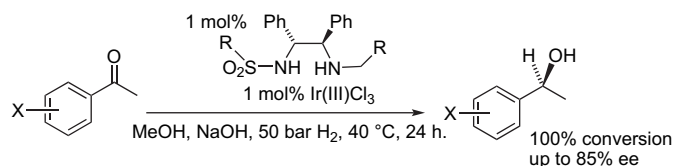
Nurdan Atılğan, Fatih Algı, Ahmet M. Önal*, Atilla Cihaner*



Ir(III) complexes of diamine ligands for asymmetric ketone hydrogenation

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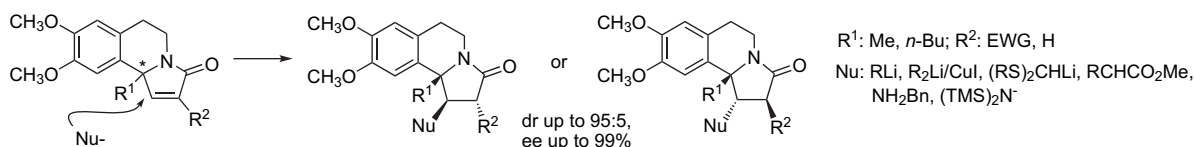
José E.D. Martins, Martin Wills*



Stereocontrolled conjugate additions to dihydroindolizininone systems. Synthesis of enantiopure polysubstituted tetrahydropyrrolo[2,1-*a*]isoquinolones

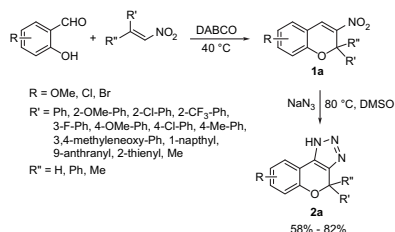
pp 5787–5798

Cristina Camarero, Inés González-Temprano, Asier Gómez-SanJuan, Sonia Arrasate, Esther Lete*, Nuria Sotomayor

Catalyst-free 1,3-dipolar cycloaddition of 3-nitrochromen with sodium azide: a facile method for the synthesis of 4-aryl-1,4-dihydrochromeno[4,3-*d*][1,2,3]triazole derivatives

pp 5799–5804

Pateliya Mujjamil Habib, B. Rama Raju, Veerababurao Kavala, Chun-Wei Kuo, Ching-Fa Yao*

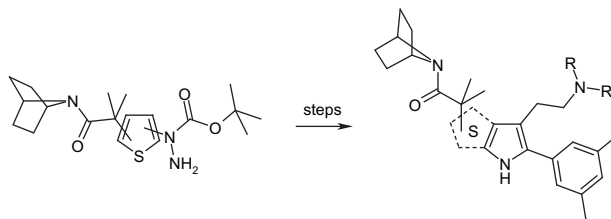


1,3-Dipolar cycloaddition of 3-nitrochromen with sodium azide under catalyst-free conditions afforded 4-aryl-1,4-dihydrochromeno[4,3-*d*][1,2,3]triazole derivatives at 80 °C in DMSO is described. The generality of this reaction was demonstrated by synthesizing an array of 4-aryl-1,4-dihydrochromeno[4,3-*d*]-[1,2,3]triazole derivatives. Clean reaction conditions, easy isolation, and good yields of the triazoles are the salient features of the methodology.

Fischer synthesis of isomeric thienopyrrole LHRH antagonists

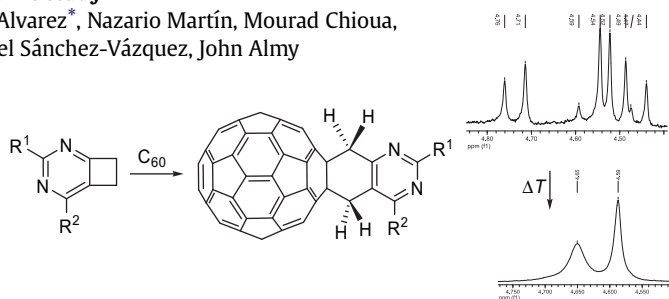
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David M. Andrews, Jean-Claude Arnould, Pascal Boutron, Bénédicte Délouvie, Christian Delvare, Kevin M. Foote, Annie Hamon, Craig S. Harris*, Christine Lambert-van der Brempt, Maryannick Lamorlette, Zbigniew M. Matusiak

**Pyrimidine *ortho*-quinodimethanes. Part 2: Synthesis of new [60]fullerene adducts based on substituted pyrimidine derivatives and their ¹H NMR dynamic study**

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Antonio Herrera, Roberto Martínez-Alvarez*, Nazario Martín, Mourad Chioua, Rachid Chioua, Dolores Molero, Angel Sánchez-Vázquez, John Almy

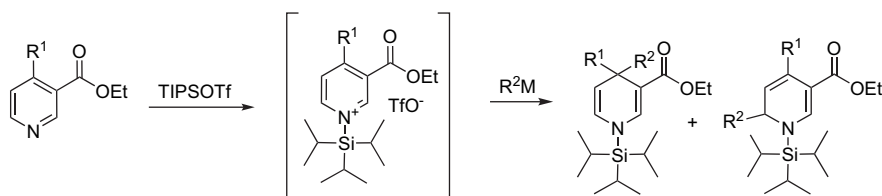


New fullerodihydroquinazolines with a different substitution pattern have been easily prepared from cyclobutapyrimidines via Diels–Alder reaction in a one synthetic step. Thermodynamic parameters of the new cycloadducts have been calculated from variable temperature ¹H NMR spectra.

**Regioselective addition of organomagnesium reagents to *N*-silyl activated nicotinic acid esters—a convenient method for the synthesis of 4,4-disubstituted 1,4-dihyronicotinates**

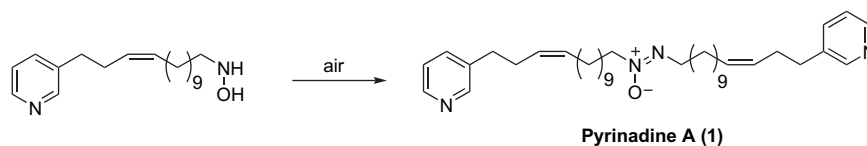
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Christian A. Sperger, Klaus T. Wanner*

**A short biomimetic synthesis of marine sponge alkaloid Pyrinadine A**

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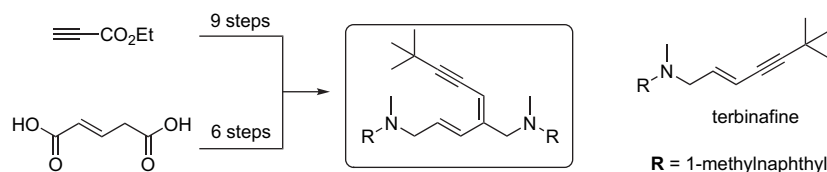
Muhammad Anwar, Victor Lee*



Novel stereoselective syntheses of (2*E*,4*E*)-4-(4,4-dimethylpent-2-ynylidene)-*N*¹,*N*⁵-dimethyl-*N*¹,*N*⁵-bis(naphthalen-1-ylmethyl)pent-2-ene-1,5-diamine

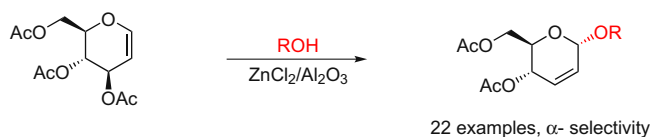
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Lino Colombo*, Marcello Di Giacomo*, Massimo Serra, Simone M. Tambini


ZnCl₂/alumina impregnation catalyzed Ferrier rearrangement: an expedient synthesis of pseudoglycosides

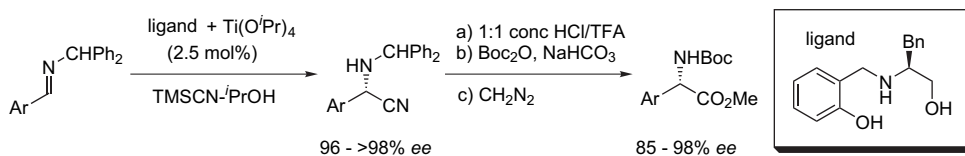
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Bala Kishan Gorityala, Rujee Lorpitthaya, Yaguang Bai, Xue-Wei Liu*


A practical synthesis of optically active arylglycines via catalytic asymmetric Strecker reaction

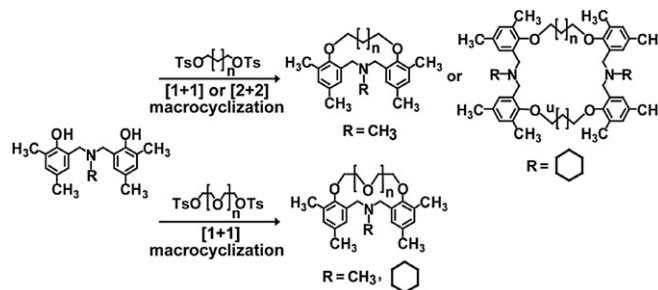
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Vorawit Banphavichit, Worluk Mansawat, Worawan Bhanthumnavin, Tirayut Vilaivan*


Selective crown ether based macrocyclization: a model case study from *N,N*-bis(2-hydroxyalkylbenzyl)alkylamine

pp 5855–5861

Suwabun Chirachanchai*, Thitiporn Rungsimanon, Suttinun Phongtamrug, Mikiji Miyata, Apirat Laobuthee



*Corresponding author

 Supplementary data available via ScienceDirect

COVER

Conjugate addition of various types of nucleophiles to the α,β -unsaturated lactam unit of indolizone systems constitutes a powerful tool for the synthesis of complex pyrrolo [2,1-*a*]isoquinolones, obtaining excellent stereochemical results (up to >95:5 dr). The use of chiral non racemic substrates or the introduction of a chiral auxiliary as an activating group on the alkene allows the synthesis of enantiomerically pure pyrrolo[2,1-*a*]isoquinolones. The stereoelectronic factors that control these reactions are discussed. Details can be found in Tetrahedron, **2009**, 65, 5787–5798.

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