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REPORT

Recent advances in organotrifluoroborates chemistry

Hélio A. Stefani,* Rodrigo Cella and Adriano S. Vieira

pp 3623–3658

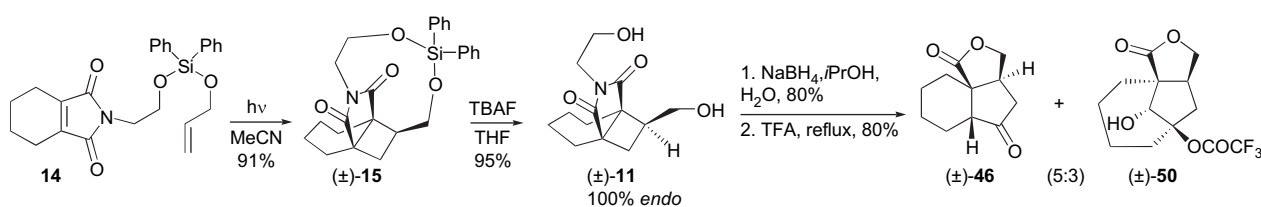
In the recent years, the organotrifluoroborates chemistry has received special attention mainly by the organic chemistry community. The interest in organotrifluoroborate compounds is due to their great versatility in some reactions, i.e., metal-catalyzed reactions. This review describes developments since the organotrifluoroborates synthesis until their applications in organic chemistry and covers the literature published in 1995–2006.

ARTICLES

Use of temporary tethers in the intramolecular [2 + 2] photocycloaddition reactions of tetrahydrophthalimide derivatives: a new approach to complex tricyclic lactones

Şirin Gülten, Andrew Sharpe, James R. Baker and Kevin I. Booker-Milburn*

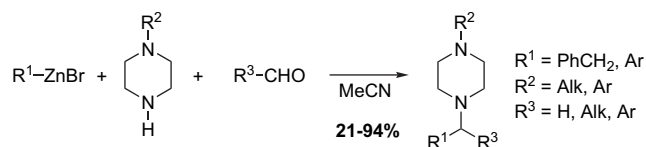
pp 3659–3671



Straightforward three-component synthesis of diarylmethylpiperazines and 1,2-diarylethylpiperazines

Stéphane Sengmany, Erwan Le Gall,* Cédric Le Jean, Michel Troupel and Jean-Yves Nédélec

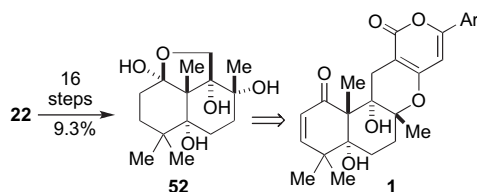
pp 3672–3681



Approaches to the synthesis of arisugacin A

Michael E. Jung* and Sun-Joon Min

pp 3682–3701

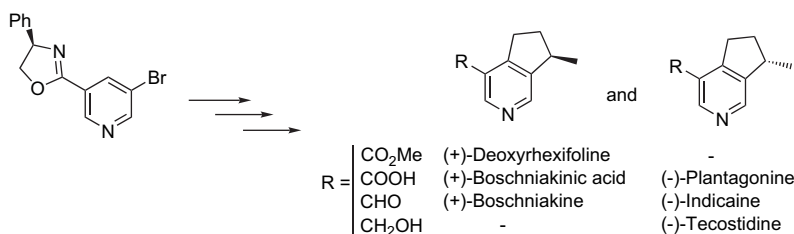


Approaches to the synthesis of the important acetylcholinesterase inhibitor, arisugacin A, are described.

Neat total synthesis of six monoterpene alkaloids of the actinidine series

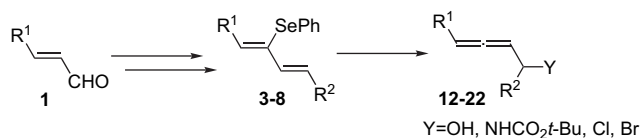
Nicolas Robert, Christophe Hoarau and Francis Marsais*

pp 3702–3706

**Selenylated dienes: synthesis, stereochemical studies by ⁷⁷Se NMR, and transformation into functionalized allenes**

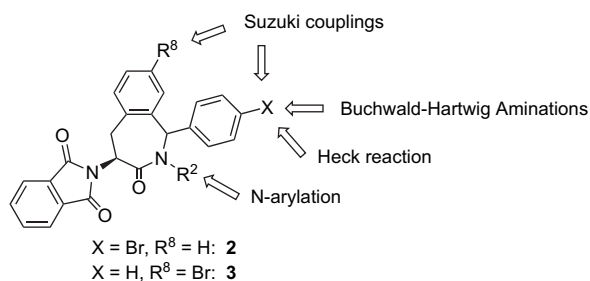
Sebastien Redon, Anne-Lise Berthe Berkaoui, Xavier Pannecoucke* and Francis Outurquin*

pp 3707–3717

**Derivatization of 1-phenyl substituted 4-amino-2-benzazepin-3-ones: evaluation of Pd-catalyzed coupling reactions**

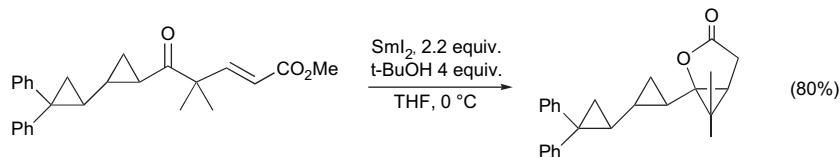
Steven Ballet, Rien De Wachter, Bert U. W. Maes and Dirk Tourwé*

pp 3718–3727



Reactivity of cyclopropanic δ -oxo- α,β -unsaturated esters towards SmI_2 : 3-*exo-trig* cyclisation versus cyclopropane ring opening

Chama Cammoun, Riadh Zriba, Sophie Bezzene-Lafollée* and François Guibé*

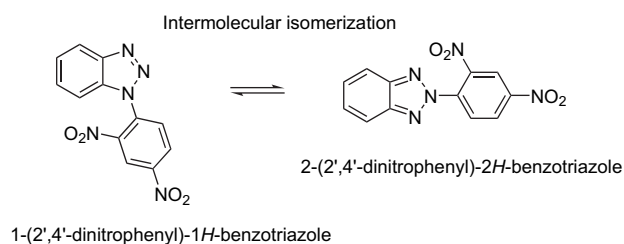


Cyclisation takes place without competitive ring opening of the 2',2'-diphenyl-bicyclopropyl radical probe.

Synthesis, structure, and isomerism of *N*-2,4-dinitrophenylbenzotriazoles

pp 3737–3744

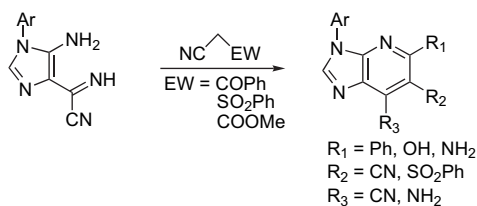
M. Dolores Santa María,* Rosa M. Claramunt,* M. Ángeles García and José Elguero



The synthesis of imidazo[4,5-*d*]pyridines from a substituted imidazole and acyl or sulfonyl acetonitrile

pp 3745–3753

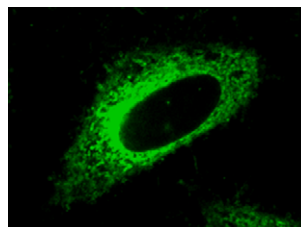
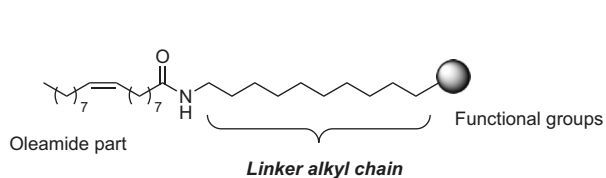
Magdi E. A. Zaki and M. Fernanda Proença*



Synthesis of *N*-functionalized oleamide derivatives

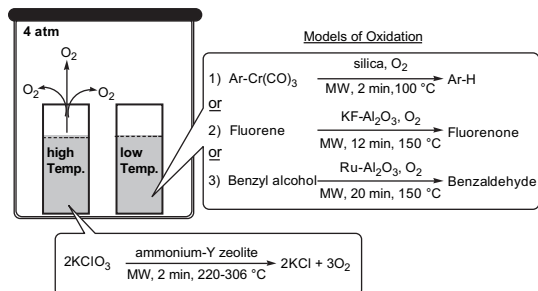
pp 3754–3761

Yusuke Ohba, Yukiko Kanao, Mayuko Takatsuji, Motoki Ito, Norikazu Yabuta, Hiroshi Nojima and Yasuyuki Kita*



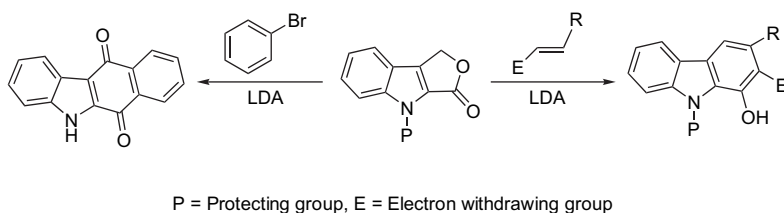
Novel synthetic approach in microwave-assisted solid-supported oxidations using ‘in situ’ generated molecular oxygen pp 3762–3767

Eytan Gershonov, Esther Katz, Yishai Karton and Yossi Zafrani*



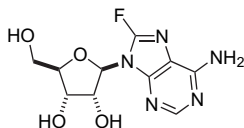
Anionic [4+2] cycloaddition strategy in the regiospecific synthesis of carbazoles: formal synthesis of ellipticine and murrayaquinone A pp 3768–3781

Dipakranjan Mal,* Bidyut Kumar Senapati and Pallab Pahari



The elusive 8-fluoroadenosine: a simple non-enzymatic synthesis and characterization pp 3782–3789

Gabor Butora,* Christoph Schmitt, Dorothy A. Levorse, Eric Streckfuss, George A. Doss and Malcolm MacCoss

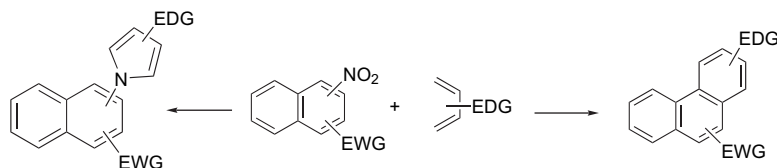


The first non-enzymatic synthesis of 8-fluoroadenosine is described. Its physicochemical properties including pH-dependent hydrolytic stability were examined in detail.



A novel application of the Diels–Alder reaction: nitronaphthalenes as normal electron demand dienophiles pp 3790–3799

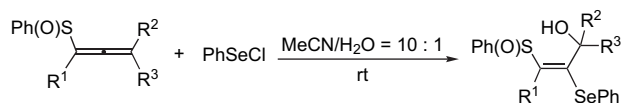
Elisa Paredes, Romina Brasca, María Kneeteman and Pedro M. E. Mancini*



Studies on the highly regio- and stereoselective selenohydroxylation of 1,2-allenylic sulfoxides with PhSeCl

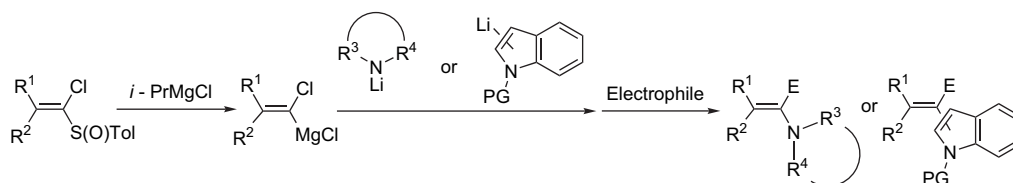
pp 3800–3805

Guangke He, Chao Zhou, Chunling Fu* and Shengming Ma*

**Direct N- and C-alkenylation of nitrogen-containing heterocycles with magnesium alkylidene carbenoids**

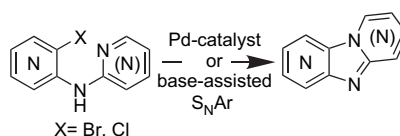
pp 3806–3817

Jo Sakurada and Tsuyoshi Satoh*

**Examination of the mechanism of the intramolecular amination of N-(3-bromopyridin-2-yl)-azaheteroarylamines and N-(2-chloropyridin-3-yl)azaheteroarylamines: a Pd-catalyzed amination and/or a base-assisted nucleophilic aromatic substitution?**

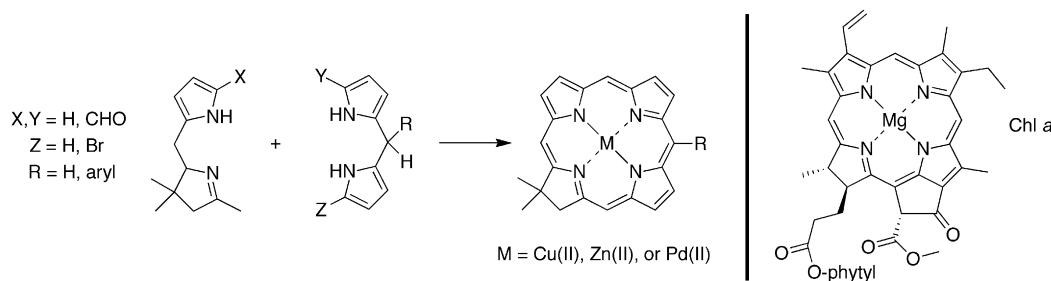
pp 3818–3825

Kristof T. J. Loones, Bert U. W. Maes,* Wouter A. Herrebout, Roger A. Dommissie, Guy L. F. Lemière and Benjamin J. Van der Veken

**Sparsely substituted chlorins as core constructs in chlorophyll analogue chemistry. Part 1: Synthesis**

pp 3826–3839

Marcin Ptaszek, Brian E. McDowell, Masahiko Taniguchi, Han-Je Kim and Jonathan S. Lindsey*

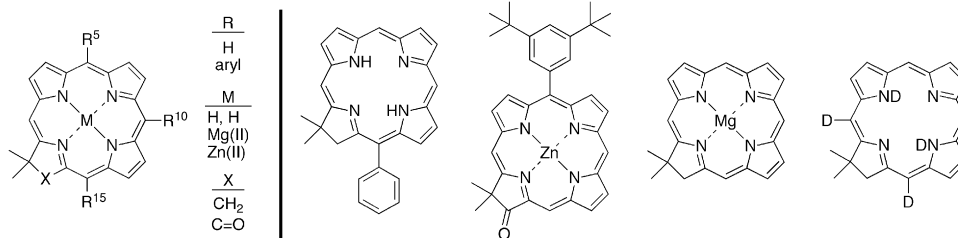


New synthetic routes provide access to metallochlorins bearing 0 or 1 meso-aryl substituents.

Sparsely substituted chlorins as core constructs in chlorophyll analogue chemistry. Part 2: Derivatization

pp 3840–3849

Masahiko Taniguchi, Marcin Ptaszek, Brian E. McDowell and Jonathan S. Lindsey*

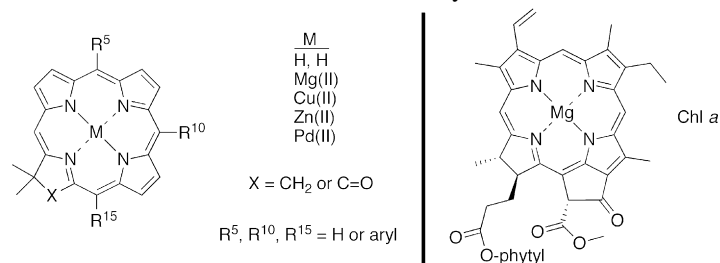


Chlorins bearing few or no meso substituents have been derivatized in six ways (demetalation, metalation, oxidation, deuteration, bromination, and arylation).

Sparsely substituted chlorins as core constructs in chlorophyll analogue chemistry. Part 3: Spectral and structural properties

pp 3850–3863

Masahiko Taniguchi, Marcin Ptaszek, Brian E. McDowell, Paul D. Boyle and Jonathan S. Lindsey*

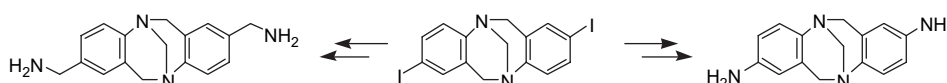


The spectral and structural properties of chlorins bearing 0, 1, 2, or 3 *meso*-aryl substituents have been examined.

Synthesis of symmetrical amino and aminomethyl derivatives of Tröger's base via Pd-catalyzed C–C and C–N bond formation

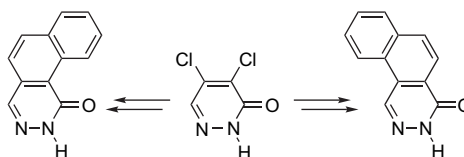
pp 3864–3869

Delphine Didier and Sergey Sergeev*


Is samoquasine A indeed benzo[*f*]phthalazin-4(3*H*)-one? Unambiguous, straightforward synthesis of benzo[*f*]phthalazin-4(3*H*)-one and its regioisomer benzo[*f*]phthalazin-1(2*H*)-one

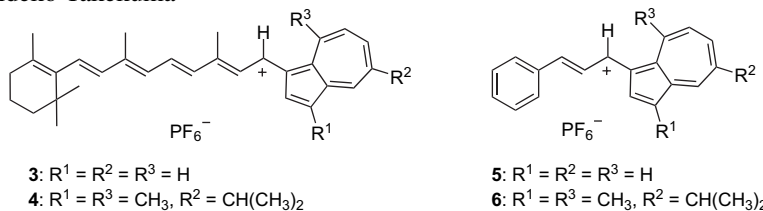
pp 3870–3881

Katrien Monsieurs, Pál Tapolcsányi, Kristof T. J. Loones, Gábor Neumajer, J. A. Dirk De Ridder, Kees Goubitz, Guy L. F. Lemièrre, Roger A. Dommissie, Péter Mátyus* and Bert U. W. Maes*



Reactions of azulene and guaiazulene with all-*trans*-retinal and *trans*-cinnamaldehyde: comparative studies on spectroscopic, chemical, and electrochemical properties of monocarbenium-ions stabilized by expanded π -electron systems with an azulenyl or 3-guaiazulenyl group pp 3882–3893

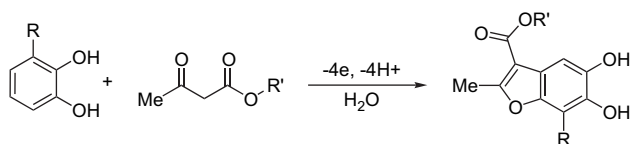
Shin-ichi Takekuma,* Kazutaka Mizutani, Kanako Inoue, Masaru Nakamura, Masato Sasaki, Toshie Minematsu, Kuniyoshi Sugimoto and Hideko Takekuma



A facile preparation, molecular structures, and properties of the delocalized monocarbenium-ion compounds **3–6** are reported.

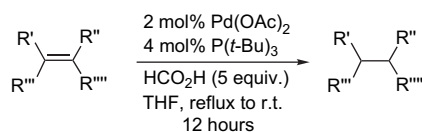
Electrochemical synthesis of 5,6-dihydroxy-2-methyl-1-benzofuran-3-carboxylate derivatives pp 3894–3898

Ali Reza Fakhari,* Davood Nematollahi, Mojtaba Shamsipur, Somayeh Makarem, Seyed Saeid Hosseini Davarani, Abdolali Alizadeh and Hamid Reza Khavasi



Scope, limitations and mechanistic aspects in the selective homogeneous palladium-catalyzed reduction of alkenes under transfer hydrogen conditions pp 3899–3906

Jean Michel Brunel




Yields varying from 25 to 98%



OTHER CONTENTS**Retraction notice**
Corrigendum**p 3907**
p 3908

*Corresponding author

 Supplementary data available via ScienceDirect**COVER**

A three-component coupling between organozinc reagents, aldehydes and *N*-substituted piperazine derivatives allows the expedient synthesis of functionalized nitrogen-containing compounds in moderate to excellent yields. *Tetrahedron* **2007**, *63*, 3672–3681.

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