



Tetrahedron Vol. 64, No. 22, 2008

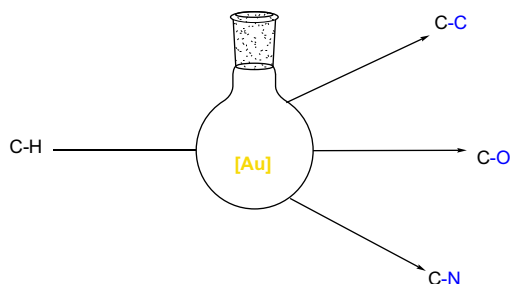
Contents

REPORT

Gold-catalyzed reactions of C–H bonds

Rachid Skouta, Chao-Jun Li*

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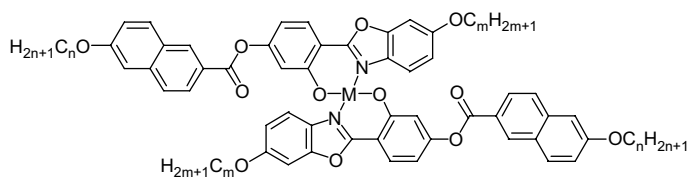
Gold-catalyzed reactions of C–H bonds, with a particular emphasis on C–C, C–O, and C–N bond formations, are reviewed.

ARTICLES

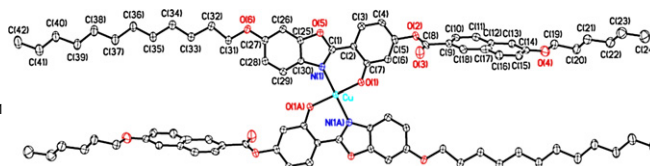
Novel metallomesogens derived from heterocyclic benzoxazoles

Hsiang-Cheng Wang, Yueh-Ju Wang, Hui-Mei Hu, Gene-Hsiang Lee, Chung K. Lai*

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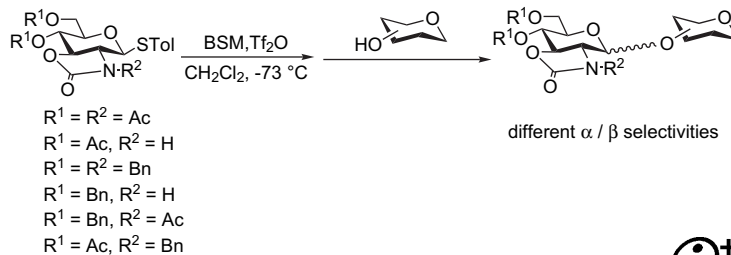
M = Cu, Pd; m = 8, 12; n = 0, 1, 4, 6, 7, 8, 10, 12



Stereoselectivity investigation on glycosylation of oxazolidinone protected 2-amino-2-deoxy-D-glucose donors based on pre-activation protocol

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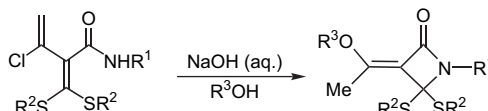
Yiqun Geng, Li-He Zhang, Xin-Shan Ye*



Efficient synthesis of α -alkylidene- β -lactams via NaOH-promoted intramolecular aza-Michael addition of α -carbamoyl ketene-S,S-acetals in aqueous media

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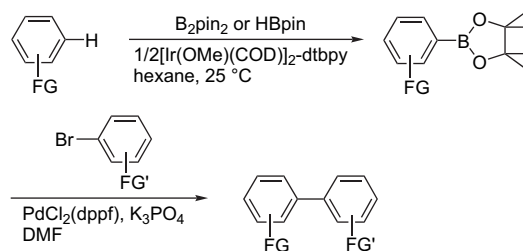
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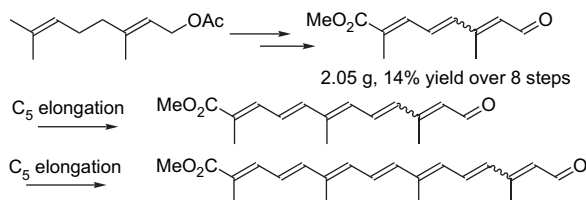
Takao Kikuchi, Yusuke Nobuta, Junko Umeda, Yasunori Yamamoto*, Tatsuo Ishiyama*, Norio Miyaura*



Practical synthesis of 1,5-dimethyl substituted conjugated polyenes from geranyl acetate

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Yu-Jun Zhao, Teck-Peng Loh*



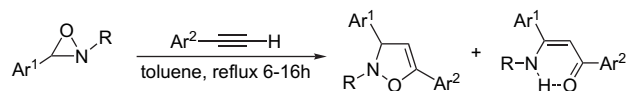
A protocol to synthesize 1,5-dimethyl substituted conjugated polyenes via dehydrogenation of geranyl acetate was established. C_5 unit elongation to multi-1,5-dimethyl substituted conjugated polyenes was also achieved via Horner–Wadsworth–Emmons olefination in good yields and good selectivities.



Synthesis of stable isoxazolines by [3 + 2] cycloaddition of oxaziridines with alkynes

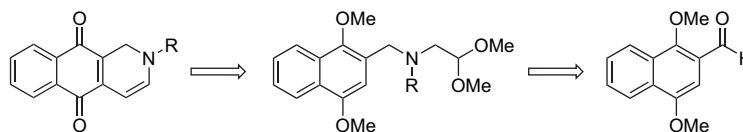
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Marilena Fabio, Ludovico Ronzini, Luigino Troisi*

Ar¹ = Ph, *p*-Me-C₆H₄, *p*-MeO-C₆H₄, 2-pyridinyl, 2-benzothiazolylAr² = Ph, 2-pyridinyl, *p*-MeO-C₆H₄R = *t*-Bu, *i*-Pr, Et**Synthesis of *N*-substituted 1,2-dihydrobenz[*g*]isoquinoline-5,10-diones**

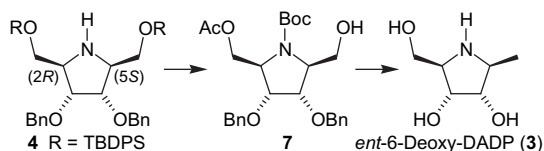
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Jan Jacobs, Bart Kesteleyn, Norbert De Kimpe*

**Lipase-mediated synthesis of enantiomeric 2,5,6-trideoxy-2,5-iminoheptitols**

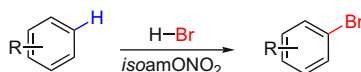
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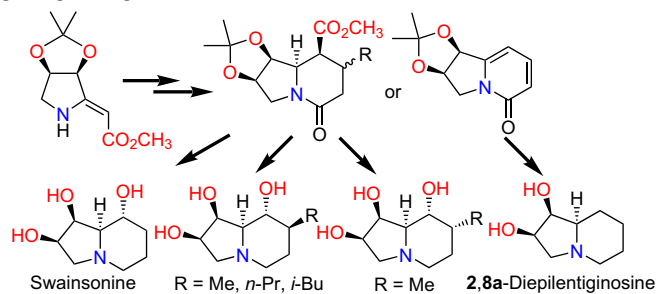
Laurent Gavara, Thomas Boisse, Benoît Rigo*, Jean-Pierre Hénichart*



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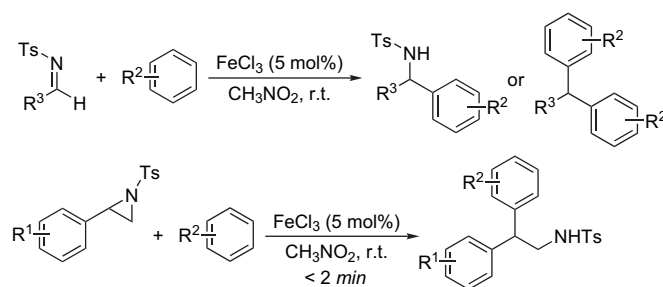
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Gao-Feng Shi, Jia-Qi Li, Xiao-Ping Jiang, Ying Cheng*


FeCl₃: an efficient catalyst for reactions of electron-rich arenes with imines or aziridines

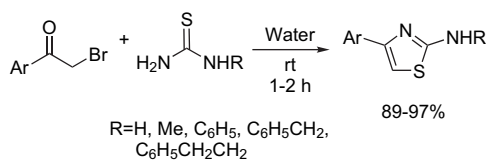
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Zhiyong Wang, Xiaoyu Sun, Jie Wu*


Catalyst-free efficient synthesis of 2-aminothiazoles in water at ambient temperature

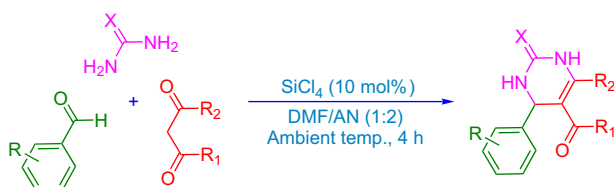
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Taterao M. Potewar, Sachin A. Ingale, Kumar V. Srinivasan*


Tetrachlorosilane catalyzed multicomponent one-step fusion of biopertinent pyrimidine heterocycles

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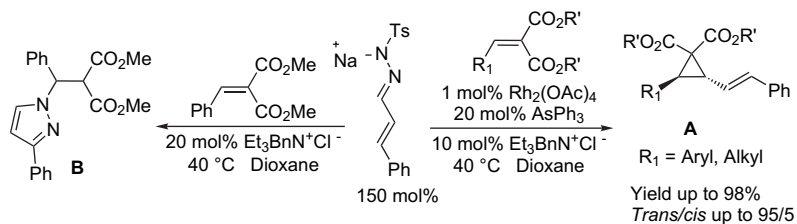
Chennan Ramalingam, Young-Woo Kwak*



AsPh₃-catalyzed ylide cyclopropanation for the synthesis of trisubstituted vinylcyclopropane derivatives

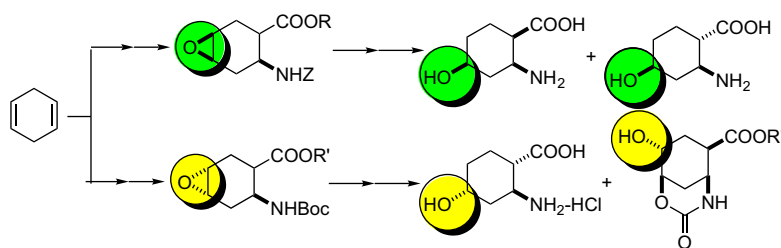
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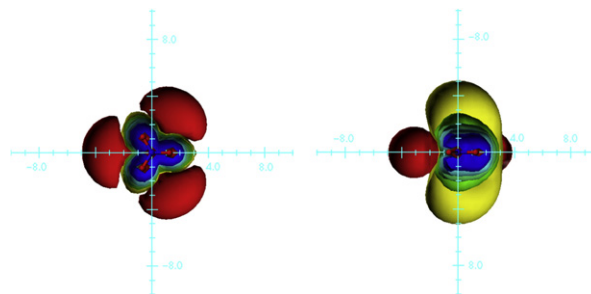
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**Anisotropic effect of the nitrate anion—manifestation of diamagnetic proton chemical shifts in the ¹H NMR spectra of NO₃⁻ coordinated complexes**

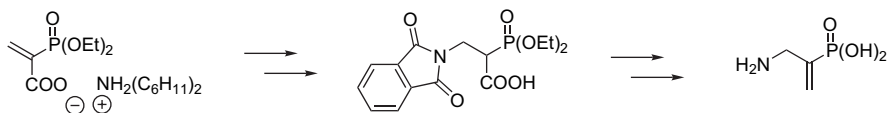
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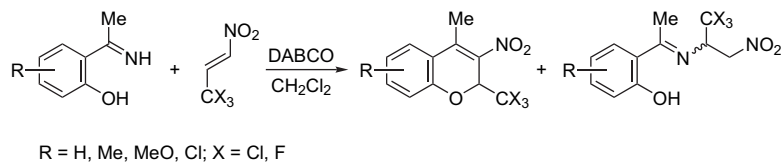
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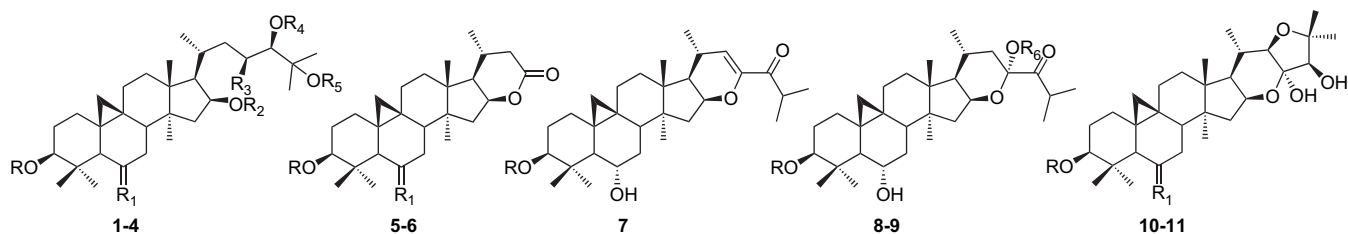
Vladislav Yu. Korotaev, Vyacheslav Ya. Sosnovskikh*, Igor B. Kutyashev, Alexey Yu. Barkov, Evgeniya G. Matochkina, Mikhail I. Kodess



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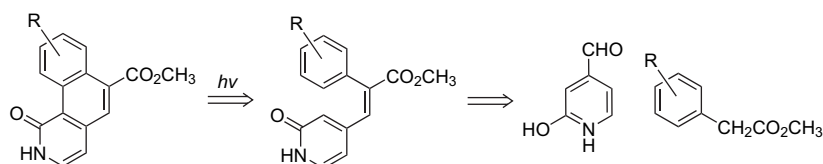
Angela Perrone, Milena Masullo, Carla Bassarello, Elena Bloise, Arafa Hamed, Patrizia Nigro, Cosimo Pizza, Sonia Piacente*



Photochemical synthesis of benz[*h*]isoquinolines

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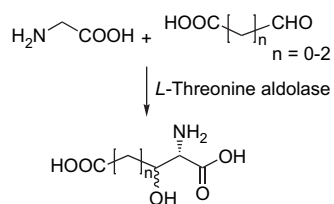
Belinda M. Abbott, Frank D. Ferrari, Suzannah J. Harnor, John C. Barnes, Rodolfo Marquez*



Enzymatic synthesis of ω-carboxy-β-hydroxy-(L)-α-amino acids

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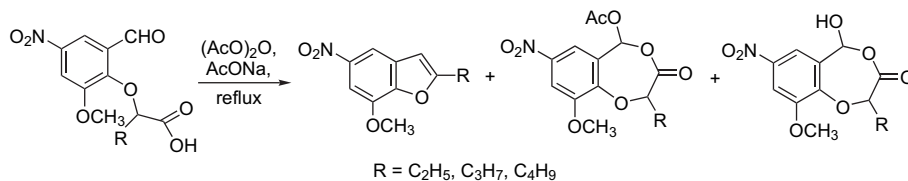
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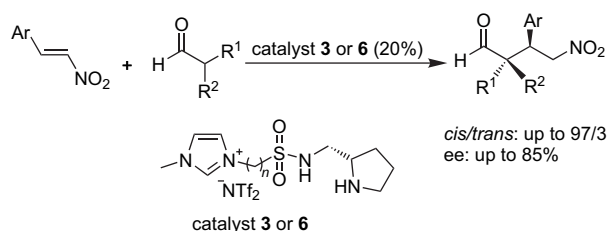
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Monika Kowalewska, Halina Kwiecień*


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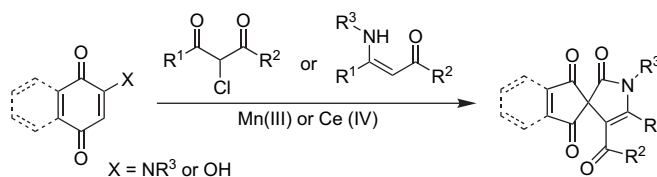
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Qianying Zhang, Bukuo Ni*, Allan D. Headley*


1,2-Acyl group migration in the oxidative free radical reaction of 2-substituted-1,4-quinones

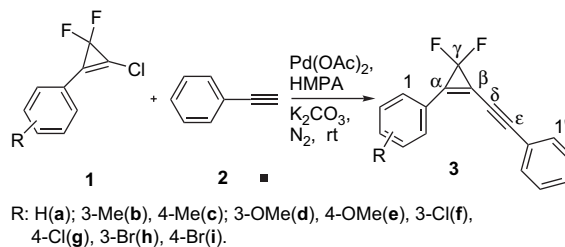
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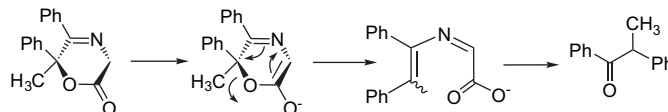
Shaw-Tao Lin*, Chuan-Chen Lee, En-Chien Wu



Electrocyclic ring-opening reactions may cause failure of enolate alkylation of 1,4-oxazin-2-one based chiral glycine equivalents

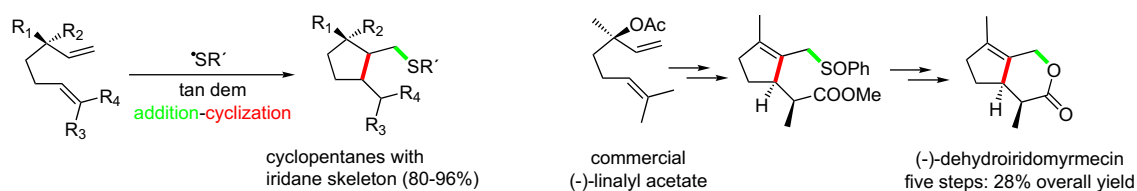
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Soňa Šimonyiová, Klaus T. Wanner*


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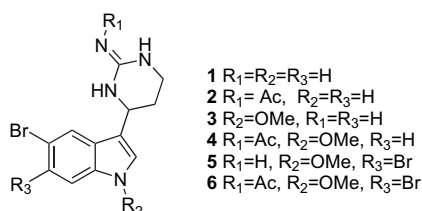
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Elena M. Sánchez, Jesús F. Arteaga, Victor Domingo, José F. Quílez del Moral, M. Mar Herrador, Alejandro F. Barrero*


Aplicyanins A–F, new cytotoxic bromoindole derivatives from the marine tunicate *Aplidium cyaneum*

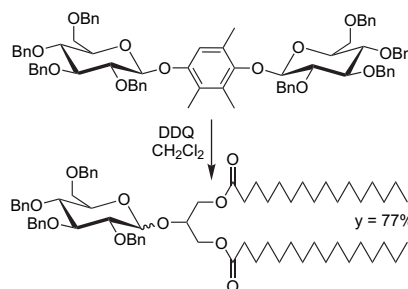
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Fernando Reyes*, Rogelio Fernández, Alberto Rodríguez, Andrés Francesch, Sergi Taboada, Conxita Ávila, Carmen Cuevas


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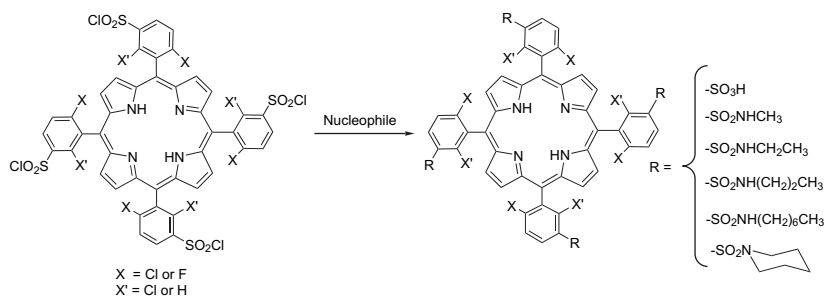
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Hans Günter Thomas, Jean-Luc Miesusset*



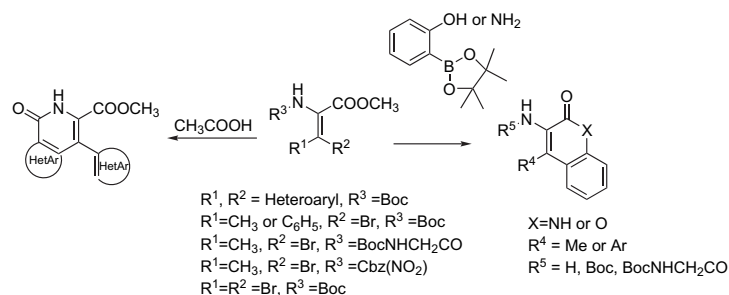
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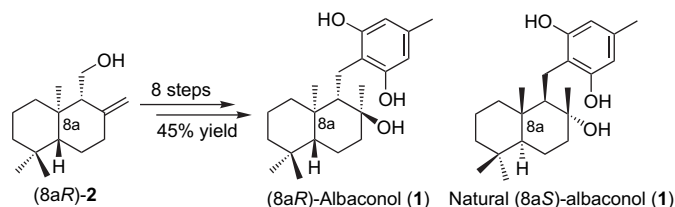
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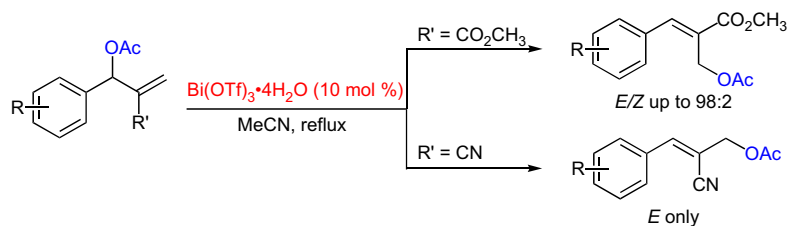
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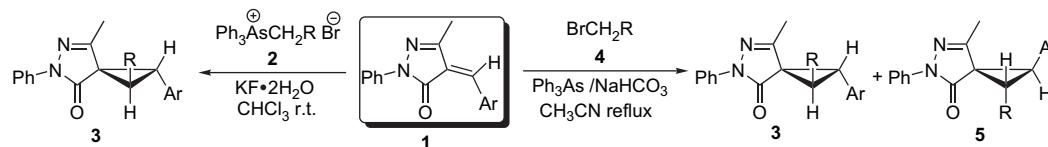
Thierry Ollevier*, Topwe M. Mwene-Mbeja



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Zhongjiao Ren*, Weiguo Cao*, Jie Chen, Yali Chen, Hongmei Deng, Min Shao, Danyi Wu



Total synthesis of clavosolide A

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Tushar Kanti Chakraborty*, Vakiti Ramkrishna Reddy, Praveen Kumar Gajula

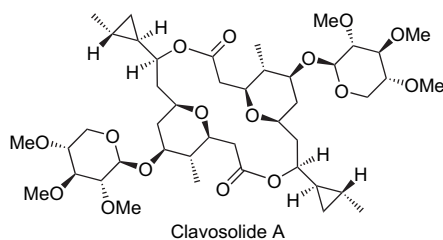
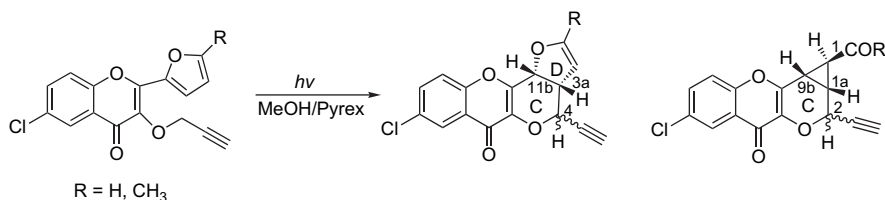


Photo-transformations of 6-chloro-3-propargyloxy-2-aryl-4-oxo-4H-1-benzopyran: 1,4-hydrogen abstraction in propargylethers

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Mandeep Thakur, Surinder Berar, Urmila Berar, Surinder Arora, Satish C. Gupta, Ramesh C. Kamboj*

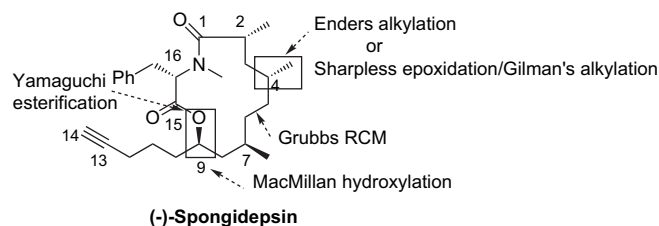


1,4-Biradicals generated in the Norrish type-II reactions of 3-propargyloxy-2-arylchromones lead to cyclisation involving the 2-aryl group. The formation and distribution of products varied with the nature of 2-aryl group.

Formal total synthesis of (-)-spongidepsin

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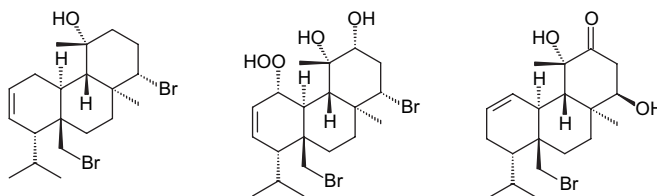
S. Chandrasekhar*, S. R. Yaragorla, L. Sreelakshmi, Ch. Raji Reddy



Cytotoxic bromoditerpenes from the red alga *Sphaerococcus coronopifolius*

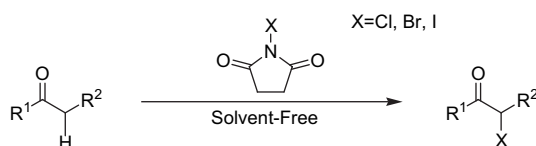
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Vangelis Smyrniotopoulos, Antonio Quesada, Constantinos Vagias, Dimitri Moreau, Christos Roussakis, Vassilios Roussis*

**Halogenation of ketones with *N*-halosuccinimides under solvent-free reaction conditions**

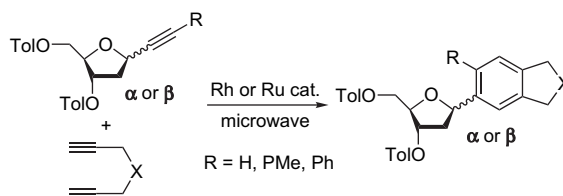
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Igor Pravst, Marko Zupan, Stojan Stavber*

**Co- and homocyclotrimerization reactions of protected 1-alkynyl-2-deoxyribofuranose. Synthesis of *C*-nucleosides, *C*-di- and *C*-trisaccharide analogues**

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Petr Novák, Sylva Číhalová, Miroslav Otmar, Michal Hocek*, Martin Kotora*

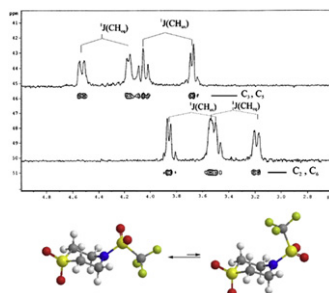


(2-Deoxy-D-ribofuranose-1-yl)alkynes undergo cyclotrimerizations with diynes to benzene derivatives under Rh or Ru-catalysis and microwave irradiation.

***N*-Triflyl substituted 1,4-diheterocyclohexanes—stereodynamics and the Perlin effect**

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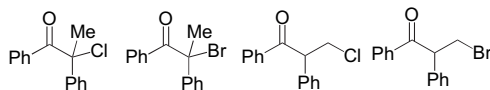
Bagrat A. Shainyan*, Igor A. Ushakov, Ljudmila L. Tolstikova, Andreas Koch, Erich Kleinpeter*



Rearrangement during halogenation of 2-hydroxy-1,2-diphenylpropan-1-one (α -methylbenzoin)

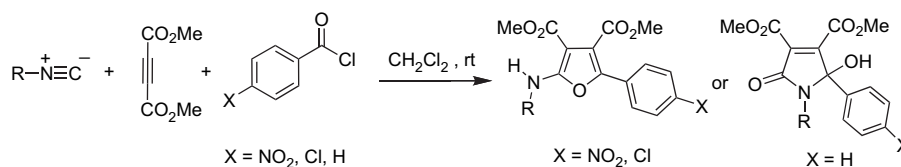
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Kati M. Aitken, R. Alan Aitken*

**Reaction of benzoyl chlorides with Huisgen's zwitterion: synthesis of functionalized 2,5-dihydro-1H-pyrroles and tetrasubstituted furans**

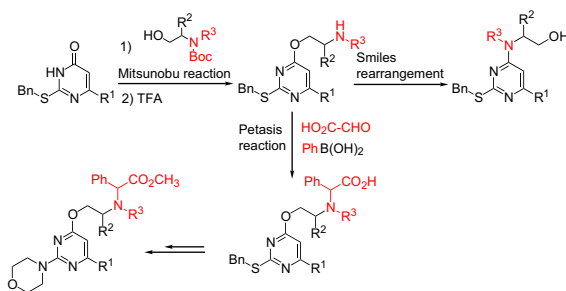
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Issa Yavari*, Ako Mokhtarporiani-Sanandaj, Loghman Moradi, Anvar Mirzaei

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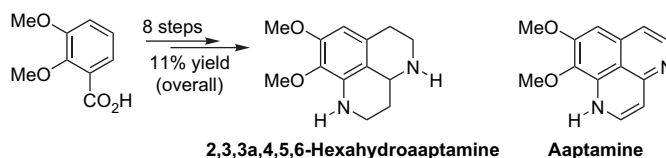
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David Font, Montserrat Heras*, José M. Villalgordo*

**A formal total synthesis of the marine alkaloid aptamine**

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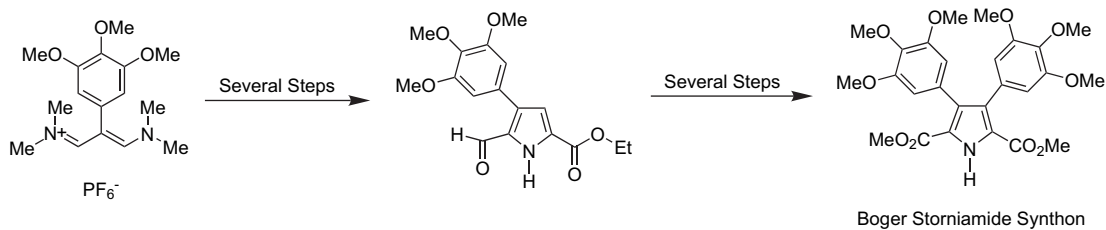
Enrique L. Larghi, Blaise V. Obrist, Teodoro S. Kaufman*



The application of vinylogous iminium salt derivatives and microwave accelerated Vilsmeier–Haack reactions to efficient relay syntheses of the polycytone and storniamide natural products

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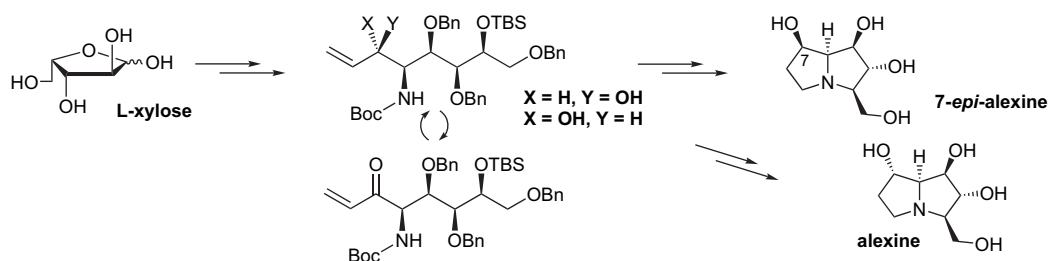
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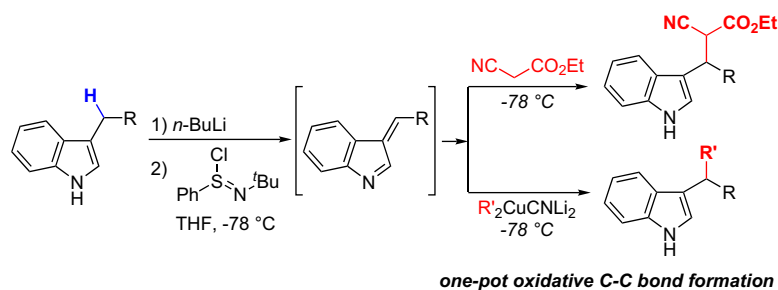
Masaki Takahashi, Tetsuya Maehara, Tetsuya Sengoku, Norifumi Fujita, Kunihiko Takabe, Hidemi Yoda*



One-pot oxidative carbon–carbon bond formation of 3-benzylic and 3-allylic indoles with carbon nucleophiles

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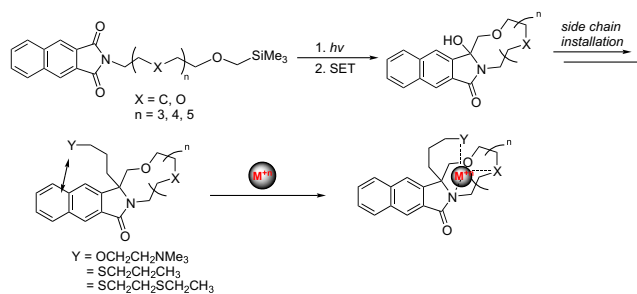
Jun-ichi Matsuo*, Yumi Tanaki, Hiroyuki Ishibashi*



Lariat-crown ether based fluorescence sensors for heavy metal ions

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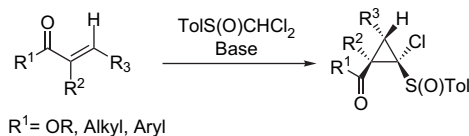
Hajime Maeda, David L. Tierney, Patrick S. Mariano*, Mainak Banerjee, Dae Won Cho, Ung Chan Yoon*



A short and stereoselective synthesis of highly substituted cyclopropanes from α,β -unsaturated carbonyl compounds with dichloromethyl *p*-tolyl sulfoxide

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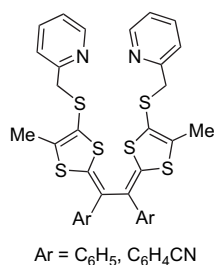
Toshifumi Miyagawa, Toshinori Tatenuma, Makoto Tadokoro, Tsuyoshi Satoh*



New redox active ligands involving a tetrathiafulvalene vinyllogue backbone

pp 5285–5290

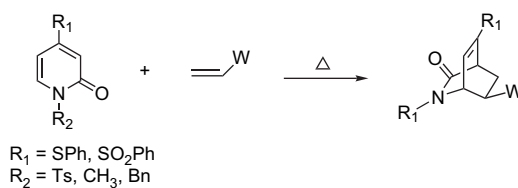
Michel Guerro, Ngoc Ha Pham, Julien Massue, Nathalie Bellec, Dominique Lorcy*



[4+2] Cycloaddition reactions of 4-sulfur-substituted 2-pyridones with electron-deficient dienophiles

pp 5291–5297

Shang-Shing P. Chou*, Hui-Chen Wang, Pong-Won Chen, Chun-Han Yang

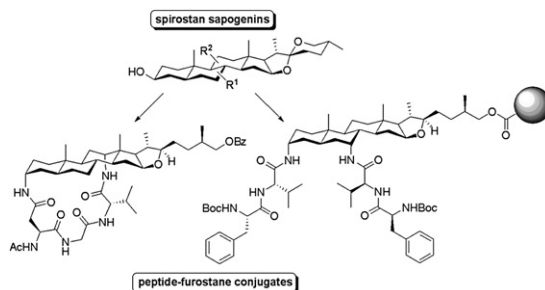


Cycloaddition reactions of 4-sulfide and sulfone-substituted 2-pyridones with electron-deficient dienophiles gave new isoquinuclidine products.

Synthesis of diamino-furostan saponogenins and their use as scaffolds for positioning peptides in a preorganized form

pp 5298–5305

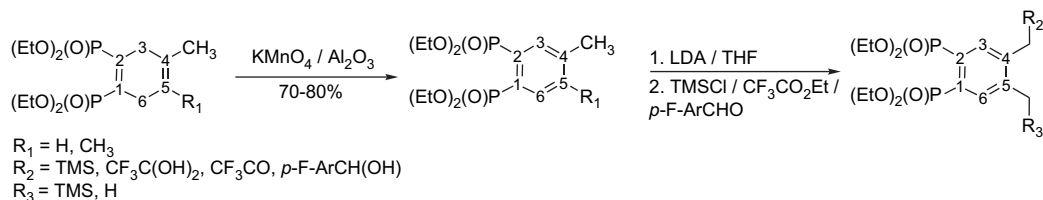
Daniel G. Rivera*, Odette Concepción, Karell Pérez-Labrada, Francisco Coll



New α -substituted alkylbenzene- and dialkylbenzene-1,2-diphosphonates: side-chain metalation of tetraethyl 4-methyl- and 4,5-dimethylbenzene-1,2-diphosphonates

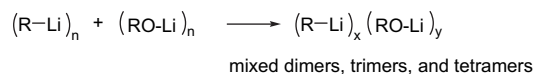
pp 5306–5313

Sergey N. Tverdomed*, Gerd-Volker Rösenthaler*, Nataliya Kalinovich, Enno Lork, Alla V. Dogadina, Boris I. Ionin

**A computational study of lithium methoxide mixed aggregates with alkyllithiums**

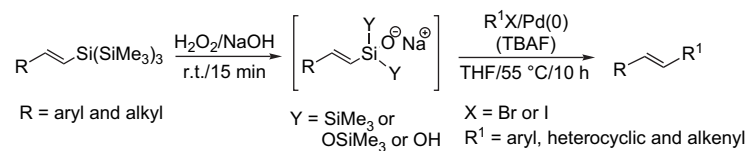
pp 5314–5321

Lawrence M. Pratt*, Ohyun Kwon, Thanh Chi Ho, Ngan Van Nguyen

**Vinyl tris(trimethylsilyl)silanes: substrates for Hiyama coupling**

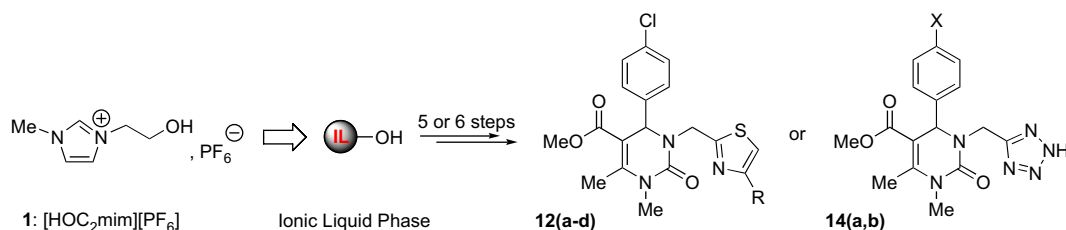
pp 5322–5327

Zhizhong Wang, Jean-Philippe Pitteloud, Lucrezia Montes, Magdalena Rapp, Djenny Derane, Stanislaw F. Wnuk*

**Ionic liquid phase organic synthesis (IoLiPOS) methodology applied to the preparation of new 3,4-dihydropyrimidine-2(1H)-ones bearing bisostere group in N-3 position**

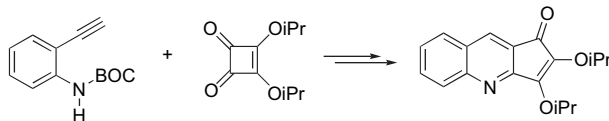
pp 5328–5335

Jean Christophe Legeay, Jean Jacques Vanden Eynde, Jean Pierre Bazureau*



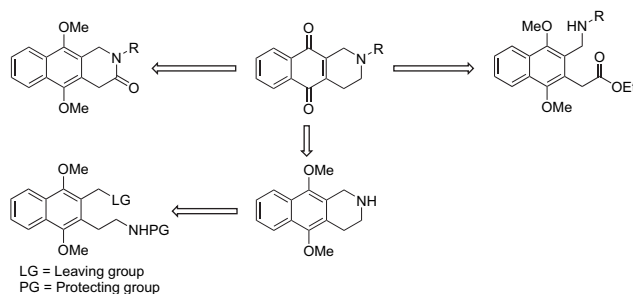
A novel entry to cyclopenta[*b*]quinolines via thermal ring-expansion of (2-aminophenyl)-ethynyl-substituted squaric acid derivatives pp 5336–5344

Peter S. Zehr, Reem Kayali, Eduardo Peña-Cabrera, Omar Robles-Resendiz, Alma D. Villanueva-Rendon, Björn C. G. Söderberg*



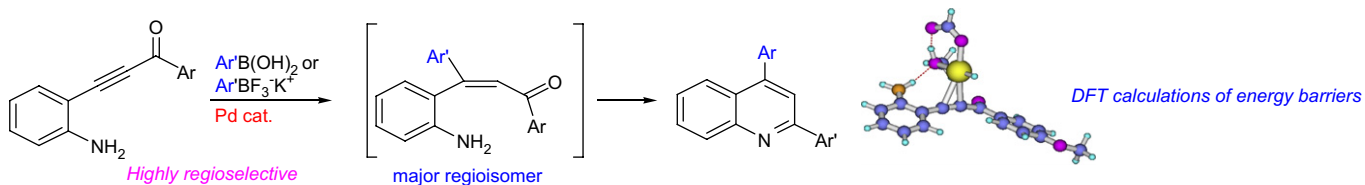
Synthesis of *N*-substituted 1,2,3,4-tetrahydrobenz[*g*]isoquinoline-5,10-diones pp 5345–5353

Jan Jacobs, Jurgen Deblander, Bart Kesteleyn, Kourosch Abbaspour Tehrani, Norbert De Kimpe*



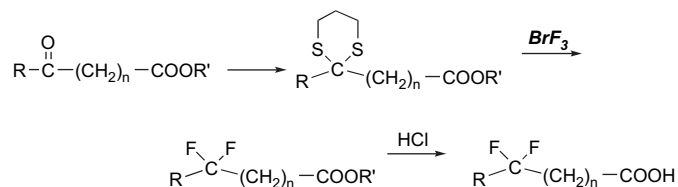
Pd-catalyzed regioselective hydroarylation of α -(2-aminoaryl)- α,β -ynones with organoboron derivatives as a tool for the synthesis of quinolines: experimental evidence and quantum-chemical calculations pp 5354–5361

Antonio Arcadi, Massimiliano Aschi, Fabio Marinelli*, Mirella Verdecchia



A general route for the synthesis of β,β -difluorocarboxylic acids pp 5362–5364

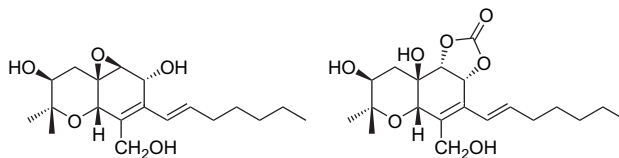
Or Cohen, Shlomo Rozen*



Cytosporin-related compounds from the marine-derived fungus *Eutypella scoparia*

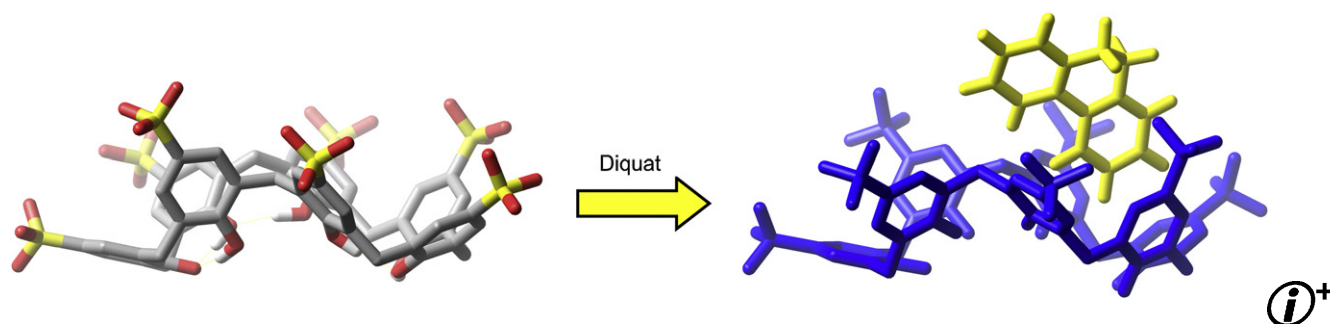
pp 5365–5369

Maria Letizia Ciavatta*, M. Pilar Lopez-Gresa, Margherita Gavagnin, Rosario Nicoletti, Emiliano Manzo, Ernesto Mollo, Yue-Wei Guo, Guido Cimino

***p*-Sulfonatocalix[7]arene: synthesis, protolysis, and binding ability**

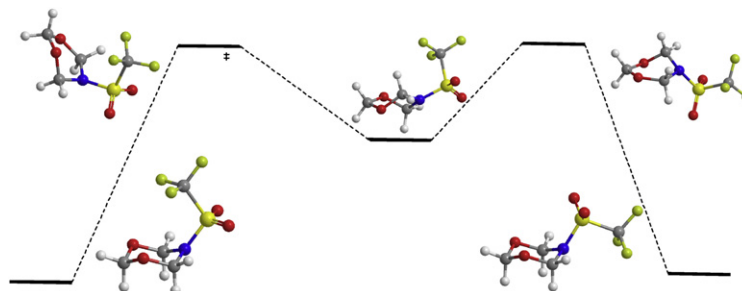
pp 5370–5378

Carmine Gaeta, Tonino Caruso, Milena Mincoelli, Francesco Troisi, Ermanno Vasca*, Placido Neri*

**Variable temperature NMR and theoretical study of the stereodynamics of 5-trifluoromethylsulfonyl-1,3,5-dioxazinanone: Perlin effect subject to heteroatom substitution**

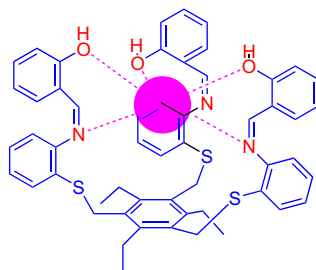
pp 5379–5383

Bagrat A. Shainyan*, Igor A. Ushakov, Vladimir I. Meshcheryakov, Andreas Koch, Erich Kleinpeter*

**Synthesis of new tripodal receptors—a 'PET' based 'off-on' recognition of Ag⁺**

pp 5384–5391

Vimal K. Bhardwaj, Ajay Pal Singh Pannu, Narinder Singh, Maninder Singh Hundal, Geeta Hundal*

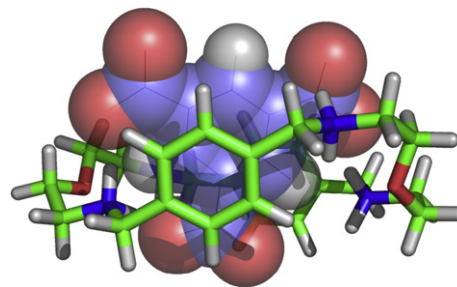


Binding studies of a protonated dioxatetraazamacrocycle with carboxylate substrates

pp 5392–5403

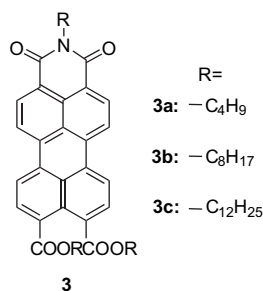
Sílvia Carvalho, Rita Delgado*, Michael G. B. Drew, Vânia Calisto, Vítor Félix

The binding ability of the tetraprotonated form of a dioxatetraazamacrocycle with carboxylate anionic substrates was evaluated in water by potentiometric, ¹H NMR techniques, and molecular dynamics simulations and in the solid state by X-ray crystallography.

**Synthesis, electrochemical, and spectroscopic properties of soluble perylene monoimide diesters**

pp 5404–5409

Lanying Yang, Minmin Shi*, Mang Wang, Hongzheng Chen*

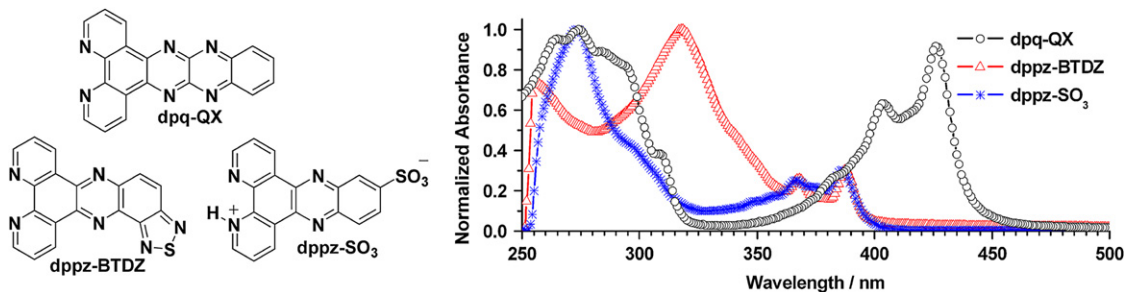


Three soluble perylene monoimide diesters are designed and synthesized, and their identical optical and electrochemical properties located between perylene diimides and perylene tetraesters are demonstrated.

Synthesis of substituted dipyrido[3,2-a:2',3'-c]phenazines and a new heterocyclic dipyrido[3,2-f:2',3'-h]-quinoxalino[2,3-b]quinoxaline

pp 5410–5415

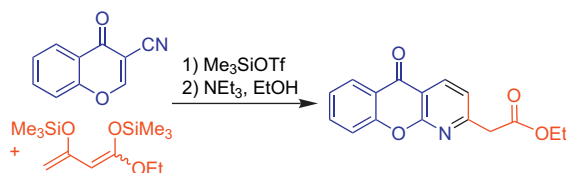
Fabio da Silva Miranda*, Aline Maria Signori, Juliano Vicente, Bernardo de Souza, Jacks Patrick Priebe, Bruno Szpoganicz, Norberto Sanches Gonçalves, Ademir Neves*

**Synthesis of 1-azaxanthenes by condensation of 1,3-bis(trimethylsilyloxy)-1,3-butadienes with**

pp 5416–5425


3-(cyano)benzopyrylium triflates and subsequent domino 'retro-Michael/nitrile-addition/heterocyclization' reaction

Muhammad A. Rashid, Nasir Rasool, Bettina Appel, Muhammad Adeel, Vahuni Karapetyan, Satenik Mkrtychyan, Helmut Reinke, Christine Fischer, Peter Langer*



OTHER CONTENT**Corrigendum****p 5426**

*Corresponding author

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