



Tetrahedron Vol. 69, Issue 2, 2013

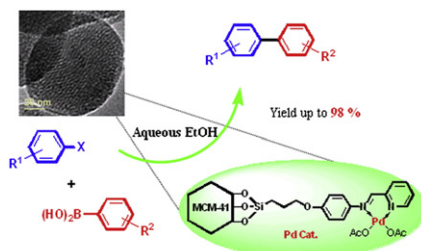
Contents

ARTICLES

Recyclable palladium(II) imino-pyridine complex immobilized on mesoporous silica as a highly active and recoverable catalyst for Suzuki–Miyaura coupling reactions in aqueous medium

pp 447–454

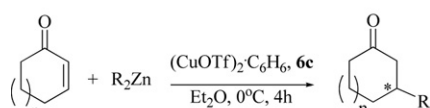
Qiang Zhang, Hong Su, Jun Luo*, Yunyang Wei



Chiral phosphite ligands derived from L-(+)-tartaric acid: synthesis and application in the Cu-catalyzed 1,4-conjugate addition of organozincs to cyclic enones

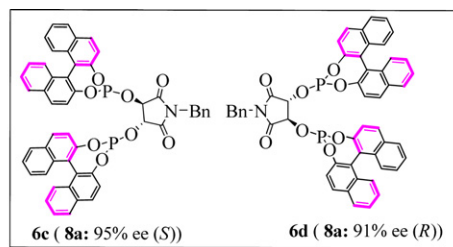
pp 455–459

Ai-ping Xing, Cui-bing Bai, Lai-lai Wang*



7a n=1
7b n=0
7c n=2
7a n=1
7a n=1

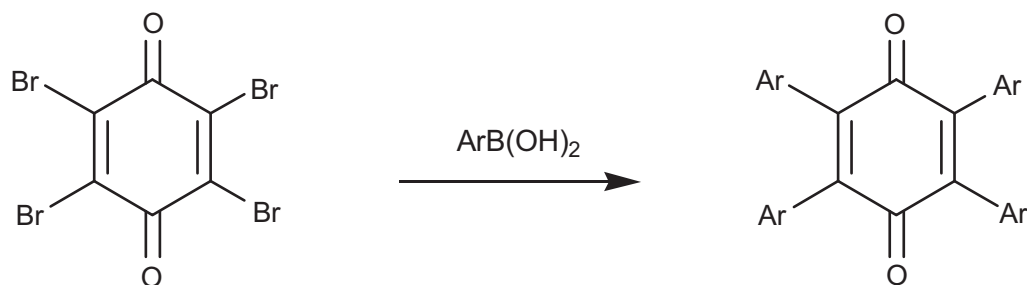
8a n=1, R=Et, 95% ee (*S*)
8b n=0, R=Et, 95% ee (*R*)
8c n=2, R=Et, 63% ee (*R*)
8d n=1, R=Me, 67% ee (*S*)
8e n=1, R=Ph, 22% ee (*R*)



Synthesis of tetraaryl-*p*-benzoquinones and 2,3-diaryl-1,4-naphthoquinones via Suzuki–Miyaura cross-coupling reactions

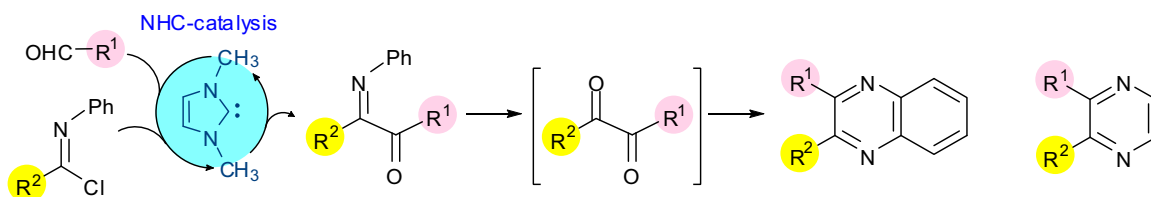
pp 460–469

Zahid Hassan, Ihsan Ullah, Iftikhar Ali, Rasheed Ahmad Khara, Ingo Knepper, Asad Ali, Tamás Patonay, Alexander Villinger, Peter Langer*


One-pot synthesis of unsymmetrical benzils and *N*-heteroarenes through nucleophilic arylation catalyzed by *N*-heterocyclic carbene

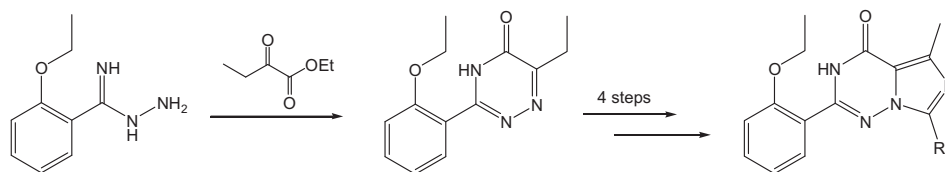
pp 470–473

Yumiko Suzuki*, Mai Murofushi, Kei Manabe


Alternative method for the synthesis of imidazo[5,1-*f*][1,2,4]triazin-4(3*H*)-one—a substrate for the preparation of phosphodiesterase (5) inhibitors

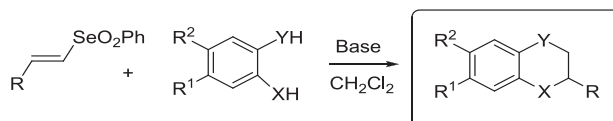
pp 474–480

Teresa Olszewska, Ewa P. Gajewska, Maria J. Milewska*


Vinyl selenones: annulation agents for the synthesis of six-membered benzo-1,4-heterocyclic compounds

pp 481–486

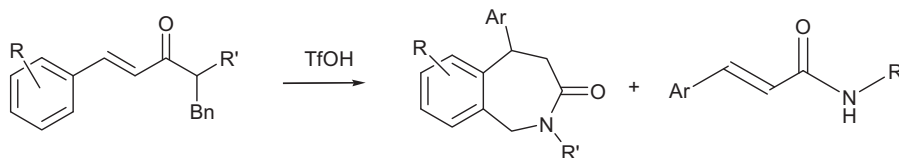
Luana Bagnoli*, Sara Casini, Francesca Marini, Claudio Santi, Lorenzo Testaferri



The triflic acid-mediated cyclisation of *N*-benzyl-cinnamamides

Frank D. King*, Stephen Caddick

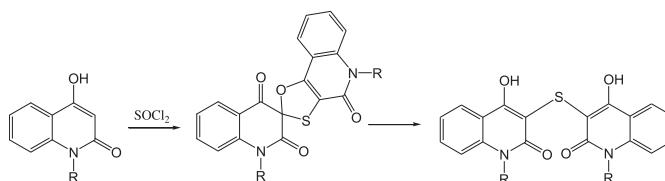
pp 487–491



Reaction of 4-hydroxy-2-quinolones with thionyl chloride—preparation of new spiro-benzo[1,3]oxathioles and their transformations

Antonín Klásek*, Ondřej Rudolf, Michal Rouchal, Antonín Lyčka, Aleš Růžička

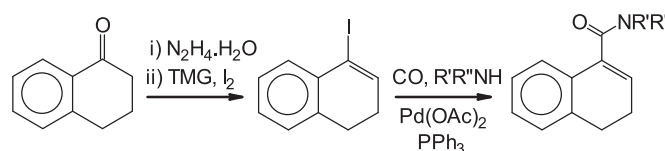
pp 492–499



High-yielding synthesis of 1-carboxamido-3,4-dihydronaphthalenes via palladium-catalyzed aminocarbonylation

Roland Farkas, Erik A. Molnár, Péter Ács, Attila Takács, László Kollár*

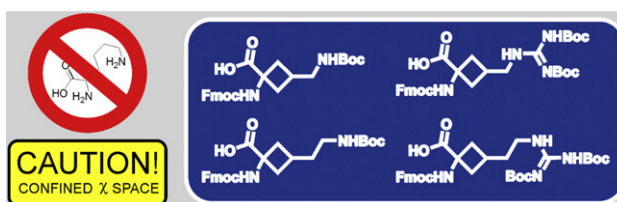
pp 500–504



Confining the χ space of basic natural amino acids: cyclobutane-derived $\chi_{1,1}\chi_{2,2}$ -constrained analogues of arginine, lysine and ornithine

Dmytro S. Radchenko, Oleg M. Michurin, Oleksandr O. Grygorenko*, Kathi Scheinpflug, Margitta Dathe, Igor V. Komarov

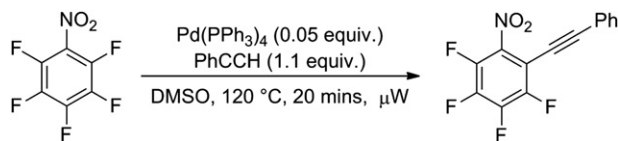
pp 505–511



Pd-catalyzed sp^2 – sp cross-coupling reactions involving C–F bond activation in highly fluorinated nitrobenzene systems

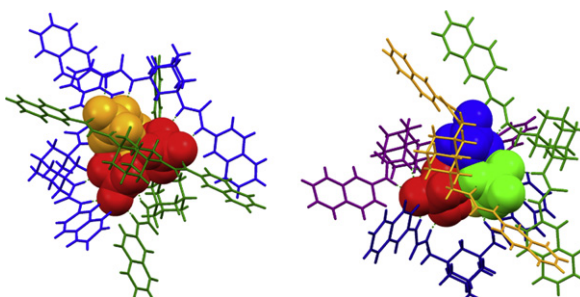
pp 512–516

Matthew R. Cargill, Graham Sandford*, Pinar Kilickiran, Gabriele Nelles

**Adamantane bisurea derivatives: anion binding in the solution and in the solid state**

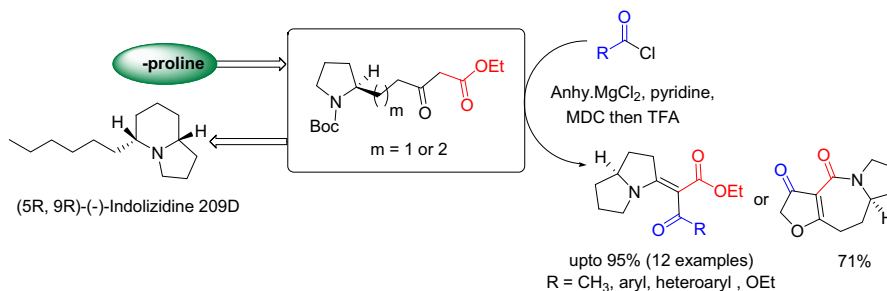
pp 517–526

Vesna Blažek, Krešimir Molčanov, Kata Mlinarić-Majerski, Biserka Kojić-Prodić, Nikola Basarić*

**Sequential deprotection–cyclisation reaction: stereoselective synthesis of azabicyclic β -enamino ester derivatives and (–) indolizidine 209D**

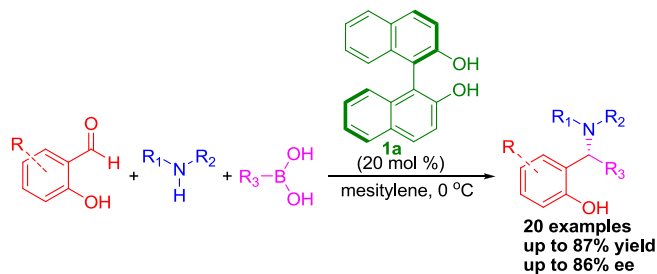
pp 527–536

Thanasekaran Ponpandian, Shanmugam Muthusubramanian*

**Enantioselective Petasis reaction among salicylaldehydes, amines, and organoboronic acids catalyzed by BINOL**

pp 537–541

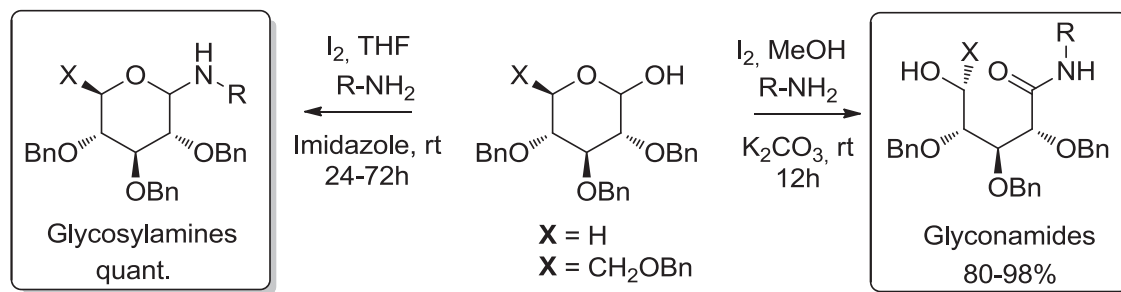
Wen-Yong Han, Jian Zuo, Xiao-Mei Zhang, Wei-Cheng Yuan*



Synthesis of glycosylamines and glyconamides using molecular iodine

pp 542–550

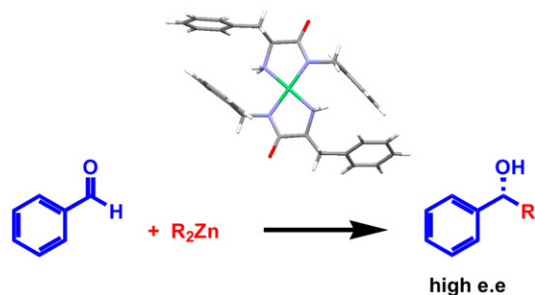
Maxime B. Fusaro, Vincent Chagnault*, Denis Postel



C₂ symmetrical nickel complexes derived from α-amino amides as efficient catalysts for the enantioselective addition of dialkylzinc reagents to aldehydes

pp 551–558

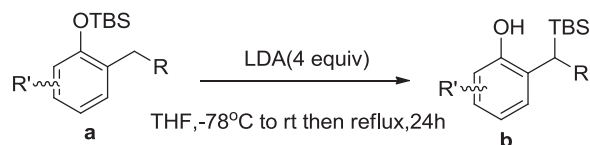
Jorge Escorihuela, Belen Altava, M. Isabel Burguete, Santiago V. Luis*



Regioselective lithiation/retro-Brook rearrangement via direct deprotonation

pp 559–563

Yongping He, Haitao Hu, Xingang Xie, Xuegong She*



R= H, alkyl, Ar,
alkenyl or allyl

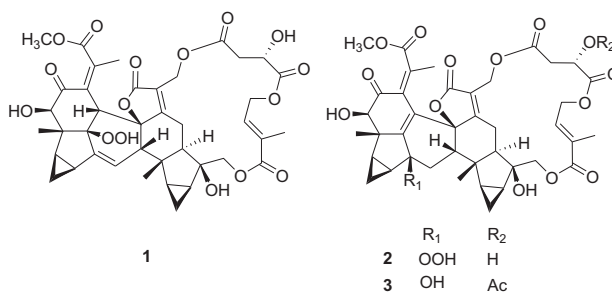
13 examples
up to 93% yields



Cytotoxic sesquiterpenoids from *Sarcandra glabra*

pp 564–569

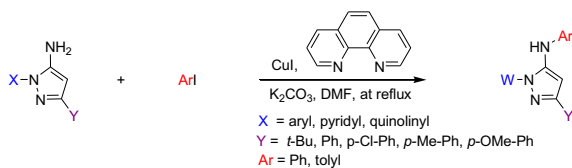
Gang Ni, Hua Zhang, Hong-Chun Liu, Sheng-Ping Yang, Mei-Yu Geng, Jian-Min Yue*



Synthesis of 5-arylamino-1-arylpiperazines from 5-aminopyrazoles with arylhalides via CuI catalyzed Ullman coupling reaction

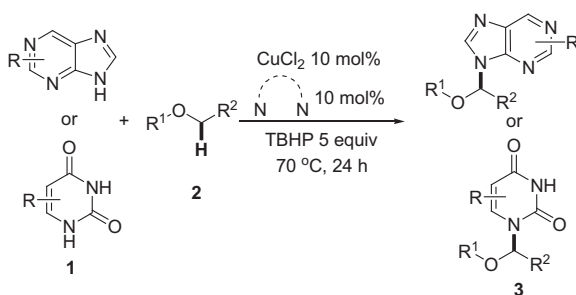
pp 570–576

En-Chiuan Chang, Chun-Yen Chen, Li-Ya Wang, Yu-Ying Huang, Mou-Yung Yeh*, Fung Fuh Wong*


Copper-catalyzed N-alkoxyalkylation of nucleobases involving direct functionalization of sp^3 C–H bonds adjacent to oxygen atoms

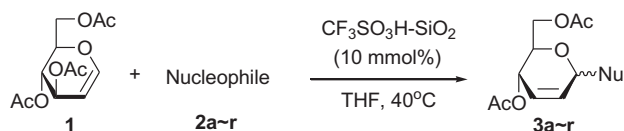
pp 577–582

Rui Huang, Chunsong Xie*, Lin Huang, Jinhua Liu*


 $\text{CF}_3\text{SO}_3\text{H-SiO}_2$ as catalyst for Ferrier rearrangement: an efficient procedure for the synthesis of pseudoglycosides

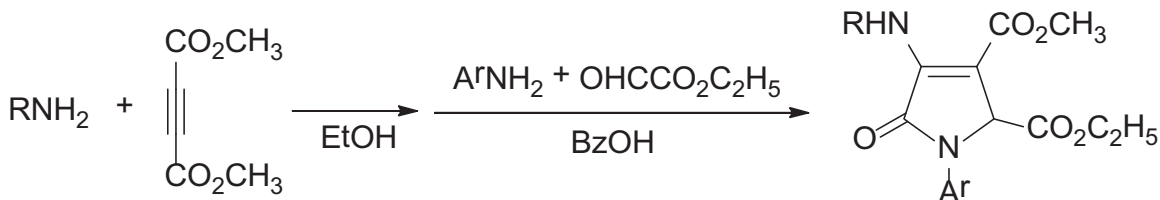
pp 583–588

Peiran Chen*, Shaoshan Wang

Eighteen examples. Yield upto 90%. Anomeric selectivity: α : β 3/1–100/0.
Synthesis of functionalized 2-pyrrolidinones via domino reactions of arylamines, ethyl glyoxylate and acetylenedicarboxylates

pp 589–594

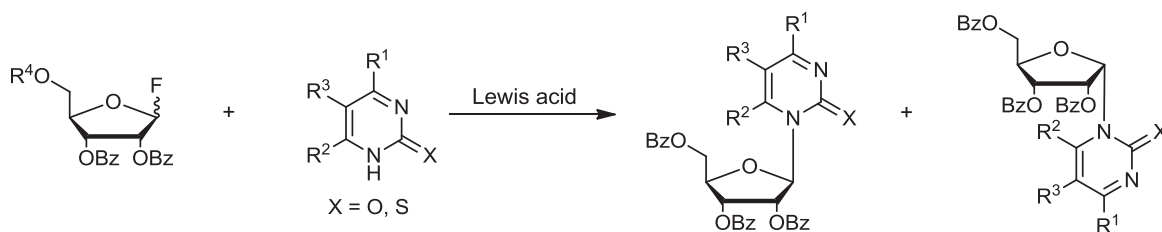
Hong Gao, Jing Sun, Chao-Guo Yan*



Synthesis of novel nucleosides and stereoselectivity of N-glycosidation

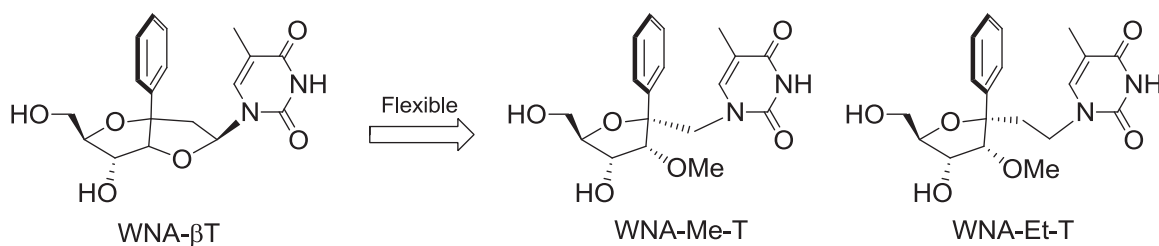
Kyosuke Michigami, Satoshi Uchida, Miho Adachi, Masahiko Hayashi*

pp 595–599

**Synthesis of 1'-phenyl-2'-OMe ribose analogues connecting the thymine base at the 1' position through a flexible linker for the formation of a stable anti-parallel triplex DNA**

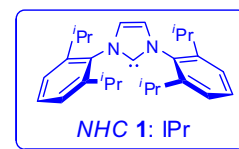
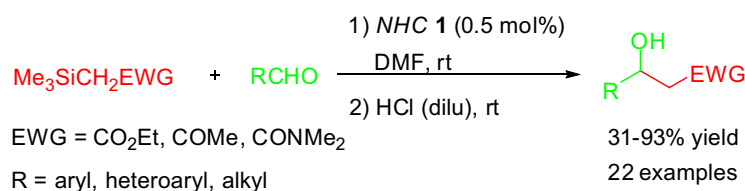
Yosuke Taniguchi, Hidenori Okamura, Norihiko Fujino, Shigeki Sasaki*

pp 600–606

**N-Heterocyclic carbene mediated Reformatsky reaction of aldehydes with α-trimethylsilylcarbonyl compounds**

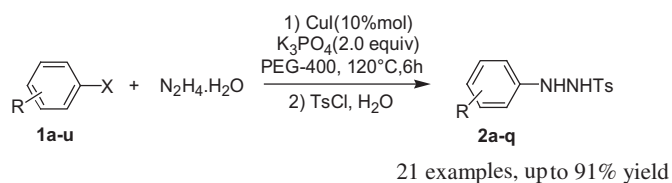
Xiao-Lei Zou, Guang-Fen Du*, Wan-Fu Sun, Lin He*, Xiao-Wei Ma, Cheng-Zhi Gu, Bin Dai*

pp 607–612

**Efficient synthesis of aryl hydrazines using copper-catalyzed cross-coupling of aryl halides with hydrazine in PEG-400**

Junmin Chen*, Yimin Zhang, Wenyan Hao, Rongli Zhang, Fei Yi

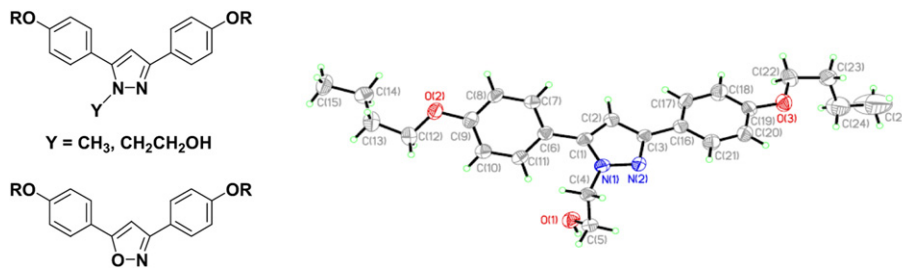
pp 613–617



Heterocyclic 3,5-disubstituted phenylpyrazoles and isoxazoles: synthesis and mesomorphic behavior

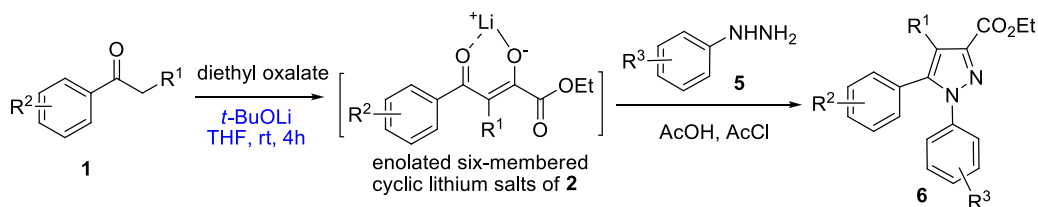
pp 618–626

Hsiu-Ming Kuo, Shao-Ling Tsai, Gene-Hsiang Lee, Hwo-Shuenn Sheu, Chung K. Lai*

**'One-pot' synthesis of 4-substituted 1,5-diaryl-1H-pyrazole-3-carboxylates via lithium *tert*-butoxide-mediated sterically hindered Claisen condensation and Knorr reaction**

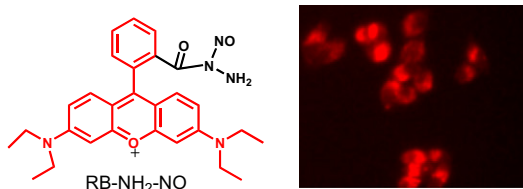
pp 627–635

Jian-An Jiang, Wei-Bin Huang, Jiao-Jiao Zhai, Hong-Wei Liu, Qi Cai, Liu-Xin Xu, Wei Wang*, Ya-Fei Ji*

**Fluorimetric and colorimetric detection of nitric oxide in living cells by rhodamine derivatives assisted by Cu²⁺**

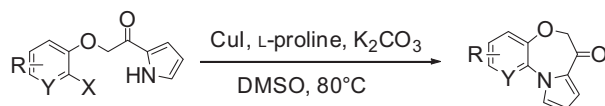
pp 636–641

Qingtao Meng*, Yixin Zhang, Dongyan Hou, Guang Xin, Tiechun Li, Cheng He, Chunying Duan*

Two rhodamine derivatives were developed for the detection of NO in aqueous solution and living systems assisted by Cu²⁺.**Synthesis of pyrrolobenzoxazepinones by CuI/L-proline-catalyzed intramolecular coupling reactions**

pp 642–646

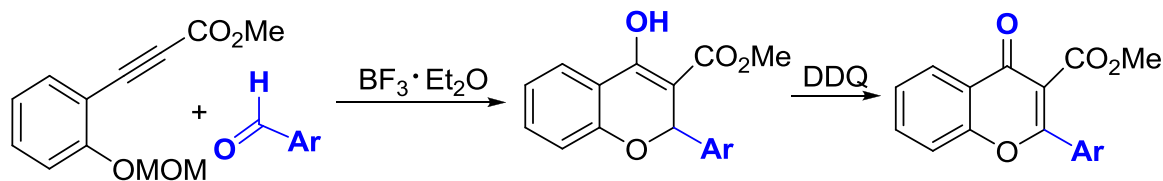
Aiping Huang, Lei Feng*, Zhi Qiao, Wei Yu, Qingqing Zheng, Chen Ma*



One-pot synthesis of 2-aryl-3-alkoxycarbonyl chromones through a cascade Lewis acid-catalyzed aldehyde olefination/oxa-Michael addition/oxidation

pp 647–652

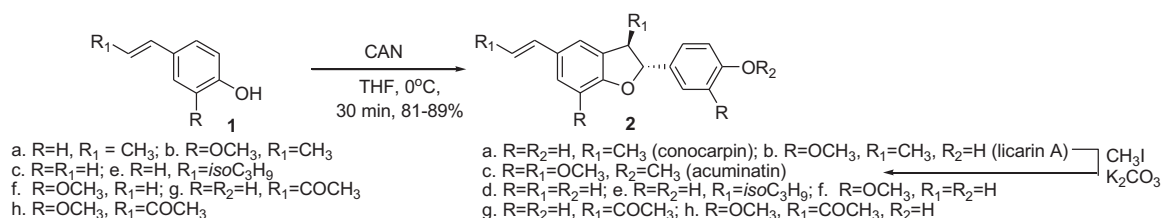
Ningning Wang, Shuying Cai, Chao Zhou, Ping Lu*, Yanguang Wang*



Cerium ammonium nitrate-mediated the oxidative dimerization of *p*-alkenylphenols: a new synthesis of substituted (\pm)-*trans*-dihydrobenzofurans

pp 653–657

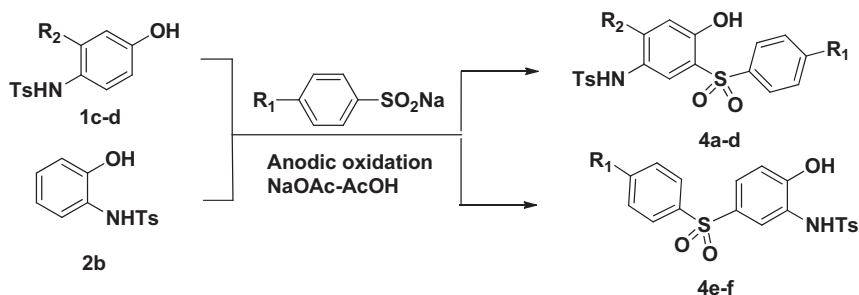
Po-Yuan Chen, Yi-Hua Wu, Mon-Huei Hsu, Tzu-Pin Wang, Eng-Chi Wang*



Electrochemical oxidation of aminophenols in the presence of benzenesulfinate

pp 658–663

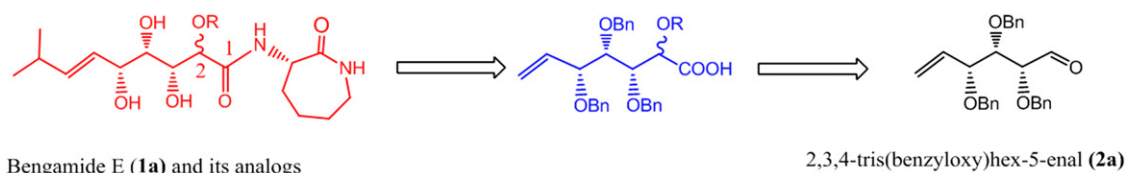
Huan-Lan Xiao, Cheng-Wen Yang, Ni-Tao Zhang, Cheng-Chu Zeng*, Li-Ming Hu, Hong-Yu Tian, R. Daniel Little



Concise synthesis and antitumor activity of Bengamide E and its analogs

pp 664–672

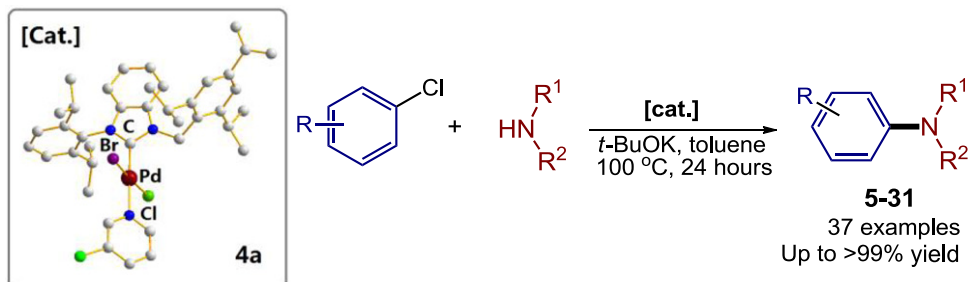
Wenxuan Zhang, Qingzhao Liang, Hui Li, Xiangbao Meng*, Zhongjun Li*



Novel robust benzimidazolylidene palladium complexes: synthesis, structure, and catalytic applications in amination of chloroarenes

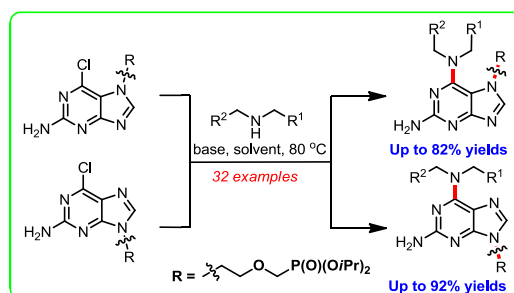
pp 673–679

Weiwei Fang, Jian Jiang, Yong Xu, Juefei Zhou, Tao Tu*


Diversity oriented efficient access of trisubstituted purines via sequential regioselective Mitsunobu coupling and S_NAr based C^6 functionalizations

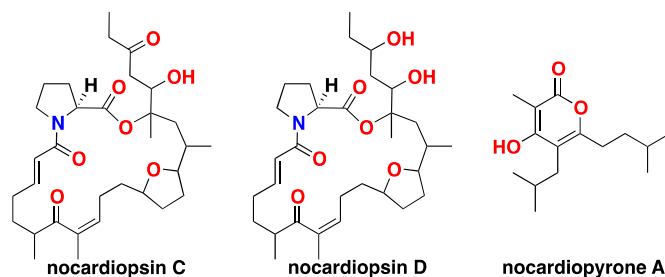
pp 680–691

Atul Manvar, Anamik Shah*


Nocardiopsins C and D and nocardipyronone A: new polyketides from an Australian marine-derived *Nocardiopsis* sp.

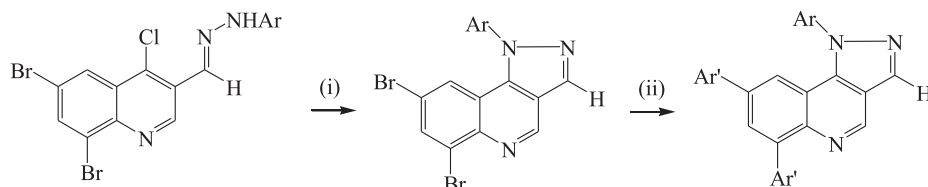
pp 692–698

Ritesh Raju, Andrew M. Piggott, Michelle Quezada, Robert J. Capon*


6,8-Dibromo-4-chloroquinoline-3-carbaldehyde as a synthon in the development of novel 1,6,8-triaryl-1H-pyrazolo [4,3-c]quinolines

pp 699–704

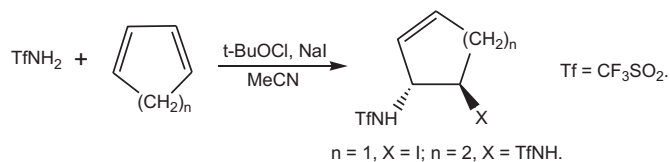
Marole M. Maluleka, Malose J. Mphahlele*

Reagents and conditions: (i) KOH, EtOH, heat, 3 h; (ii) Ar'B(OH)₂, PdCl₂(PPh₃)₂, PCy₃, K₂CO₃, DMF–water (3/1, v/v), heat, 3 h.

Oxidative addition of trifluoromethanesulfonamide to cycloalkadienes

Mikhail Yu Moskalik, Bagrat A. Shainyan*, Vera V. Astakhova, Uwe Schilde

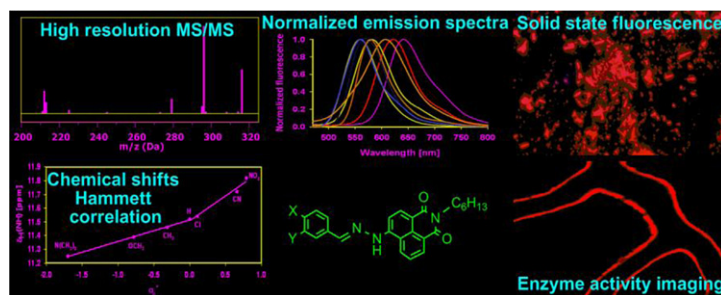
pp 705–711



Synthesis, structural analysis and application of a series of solid-state fluorochromes—aryl hydrazones of 4-hydrazino-N-hexyl-1,8-naphthalimide

Ivaylo P. Ivanov*, Mashenka B. Dimitrova, Donka N. Tasheva, Diana V. Cheshmedzhieva, Valentin S. Lozanov, Sonia V. Ilieva

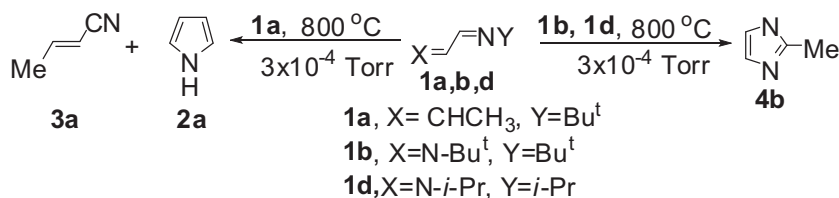
pp 712–721



Unusual reactivity of N-tert-butylimines under FVT conditions

Stanisław Leśniak*, Beata Pasternak, Katarzyna Justyna, Thien Y Vu, Thi Kieu Xuan Huynh, Saïd Khayar, Alain Dargelos, Anna Chrostowska*

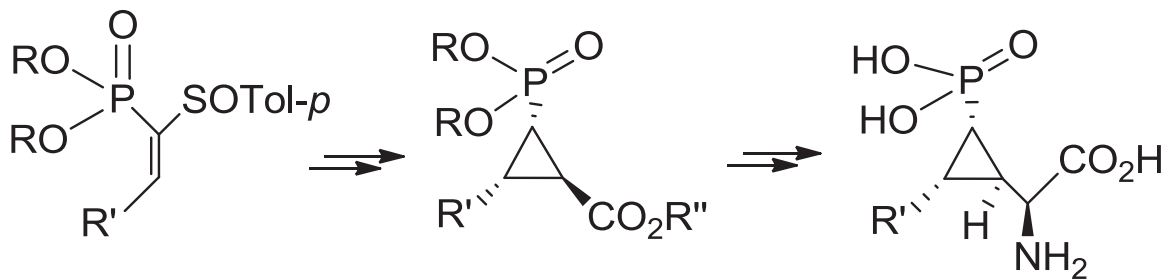
pp 722–729



Asymmetric synthesis of conformationally constrained L-AP4 analogues using chiral sulfinyl auxiliary

Wanda H. Midura*, Jerzy Krysiak, Aneta Rzewnicka, Anna Supel, Piotr Łyzwa, Ashraf M. Ewas

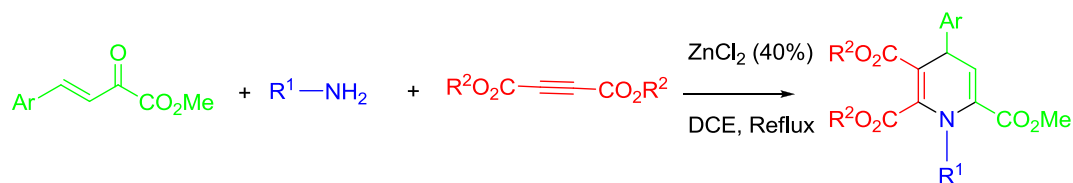
pp 730–737



Synthesis of polysubstituted 1,4-dihydropyridines via three-component reaction

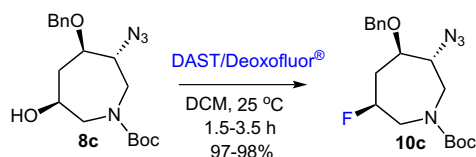
pp 738–743

Saeed Balalaie*, Leila Baoosi, Fatemeh Tahoori, Frank Rominger, Hamid Reza Bijanzadeh

**Diastereospecific fluorination of substituted azepanes**

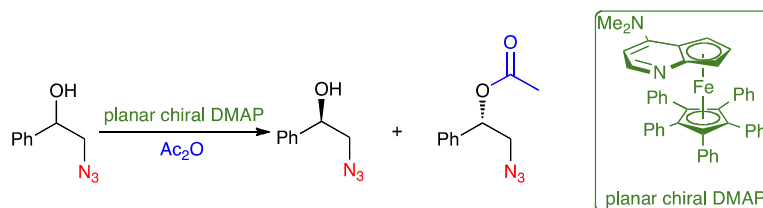
pp 744–752

Alpesh Ramanlal Patel, Fei Liu*

**Non-enzymatic kinetic resolution of 1,2-azidoalcohols using a planar-chiral DMAP derivative catalyst**

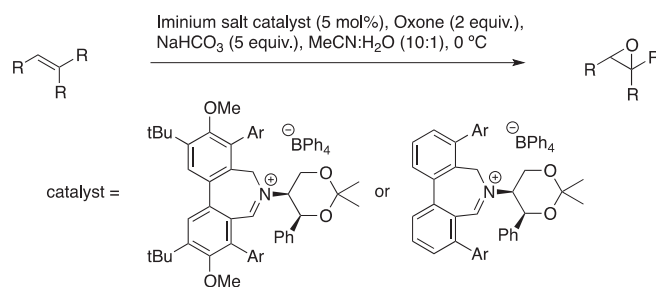
pp 753–757

Laura Mesas-Sánchez, Alba E. Díaz-Álvarez, Peter Dinér*

**Novel biphenyl organocatalysts for iminium ion-catalyzed asymmetric epoxidation**

pp 758–769

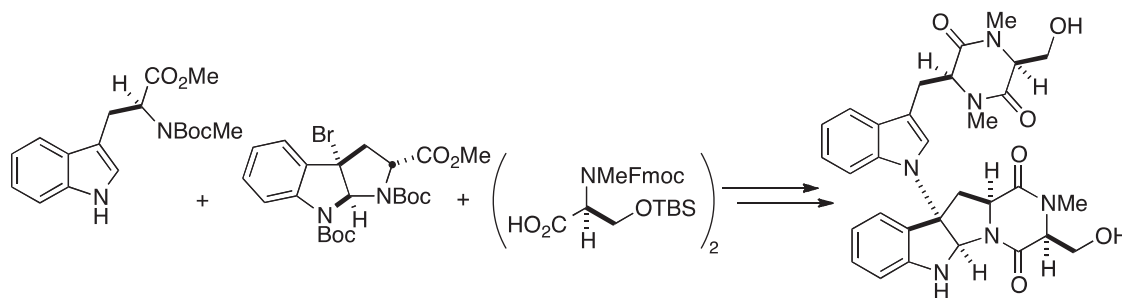
Mohamed M. Farah, Philip C. Bulman Page*, Benjamin R. Buckley, A. John Blacker, Mark R.J. Elsegood



Studies on the biosynthesis of chetomin: enantiospecific synthesis of a putative, late-stage biosynthetic intermediate

pp 770–773

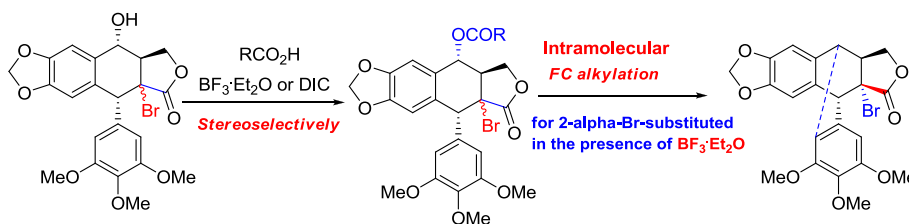
Timothy R. Welch, Robert M. Williams*



Stereoselective synthesis of 4 α -acyloxy-2 α / β -bromopodophyllotoxin derivatives as insecticidal agents

pp 774–781

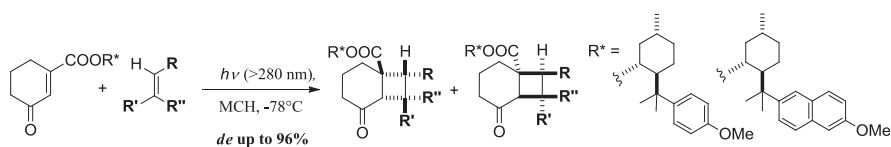
Yong Guo, Lingling Fan, Juanjuan Wang, Chun Yang, Huan Qu, Hui Xu*



Highly diastereodifferentiating and regioselective [2+2]-photoreactions using methoxyaromatic menthyl cyclohexenone carboxylates

pp 782–790

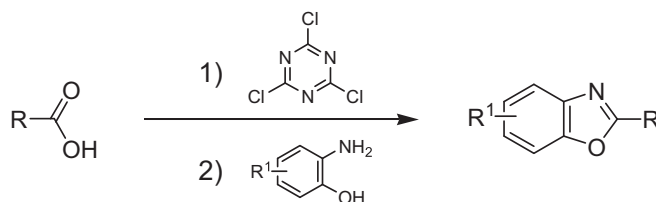
Inga Inhülsen*, Naoya Akiyama, Ken Tsutsumi, Yasuhiro Nishiyama, Kiyomi Kakiuchi*



A microwave assisted synthesis of benzoxazoles from carboxylic acids

pp 791–795

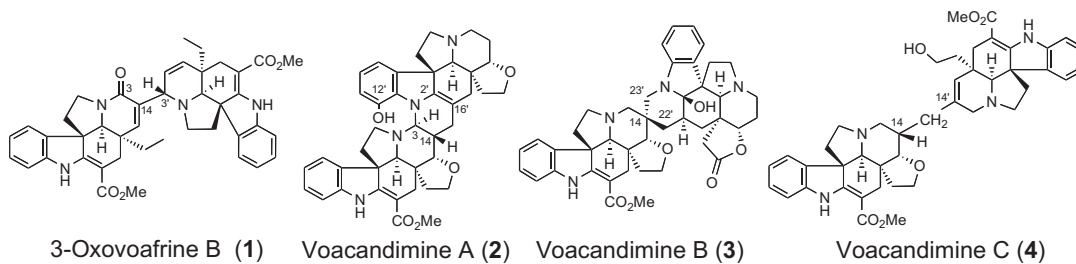
Giammario Nieddu*, Giampaolo Giacomelli



Aspidosperma–aspidosperma-type bisindole alkaloids from *Voacanga africana*

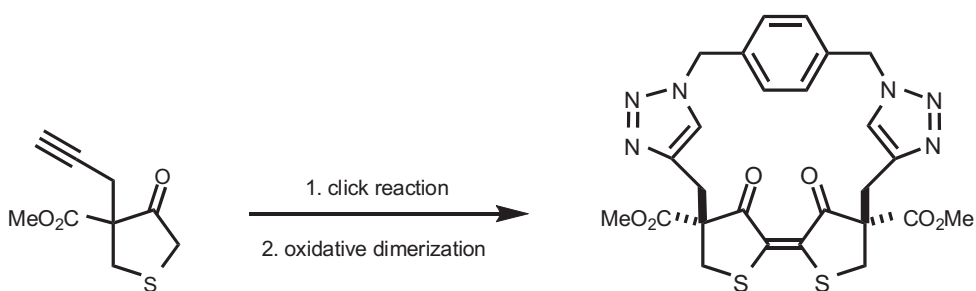
pp 796–801

Mariko Kitajima, Masumi Iwai, Noriyuki Kogure, Ruri Kikura-Hanajiri, Yukihiko Goda, Hiromitsu Takayama*

**New macrocyclic bistriazolophanes with thioindigo chromophore**

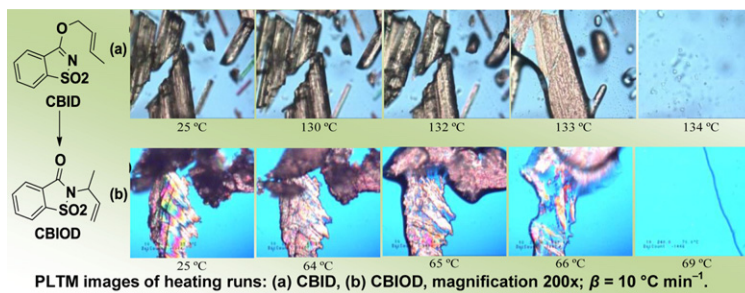
pp 802–809

Marvin Schulz, Jens Christoffers*

**The thermal sigmatropic isomerization of *pseudosaccharyl* crotyl ether**

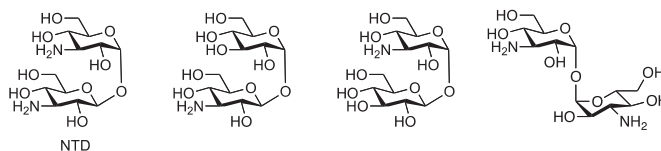
pp 810–815

L.I.L. Cabral, T.M.R. Maria, L. Martelo, M.E.S. Eusébio, M.L.S. Cristiano*, R. Fausto*

**Synthesis of 3,3'-neotrehalosdiamine and related 1,1'-aminodisaccharides using disarmed, armed, and superarmed building blocks**

pp 816–825

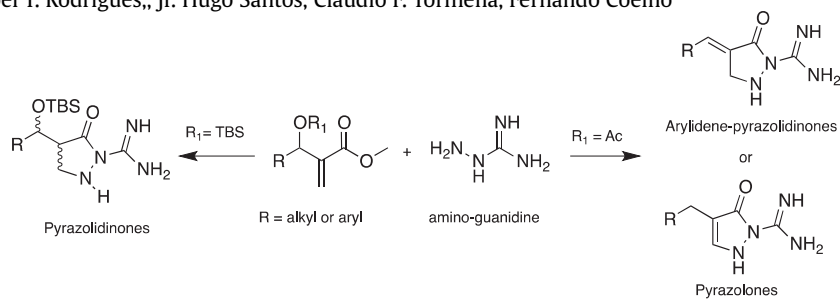
Shazia Anjum, Natasha D. Vetter, Joseph E. Rubin, David R.J. Palmer*



Heterocycles from Morita–Baylis–Hillman adducts: synthesis of 5-oxopyrazolidines, arylidene-5-oxopyrazolidines, and oxo-2,5-dihydro-pyrazols

pp 826–832

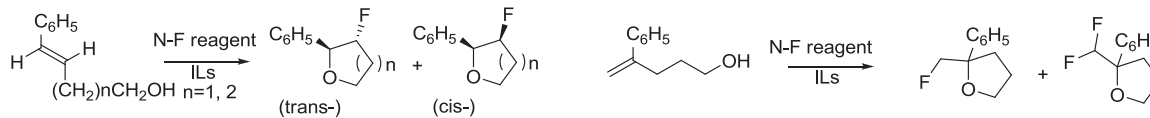
José Tiago M. Correia, Manoel T. Rodrigues, Jr. Hugo Santos, Cláudio F. Tormena, Fernando Coelho*



Electrophilic fluorocyclization of unsaturated alcohols in ionic liquids

pp 833–838

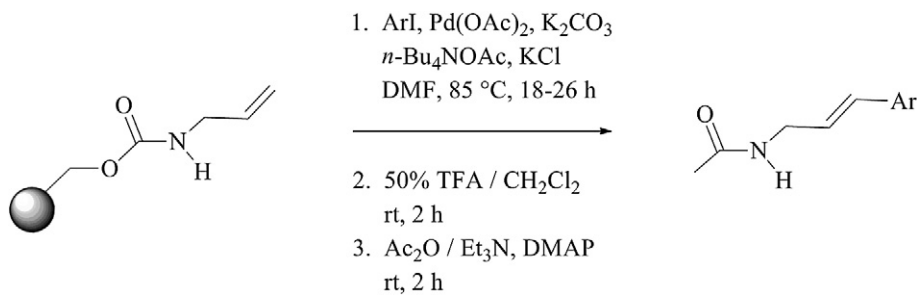
Lyudmila F. Lourie, Yurii A. Serguchev*, Maxim V. Ponomarenko*, Eduard B. Rusanov, Michail V. Vovk, Nikolai V. Ignat'ev



The Heck reaction of polymer-supported allylamine with aryl iodides

pp 839–843

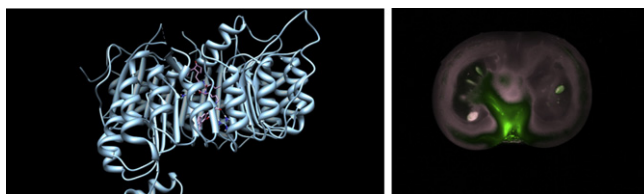
Tuomo Leikoski*, Pauli Wrigstedt, Jussi Helminen, Jorma Matikainen, Jussi Sipilä, Jari Yli-Kauhaluoma



Bioactive fluorescent jasmonate designed by molecular modeling and its migration in tomato visualized by fluorescent molecular imaging

pp 844–848

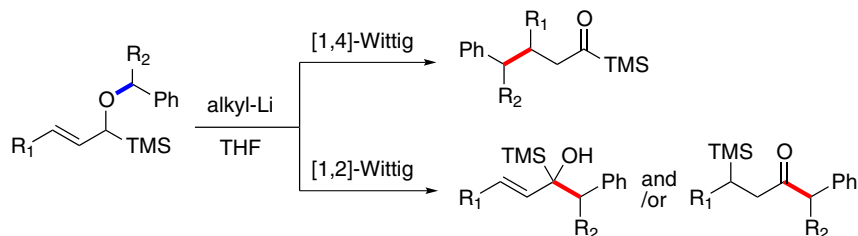
Songbai Liu*, Ruocheng Sang



[1,2]- and [1,4]-Wittig rearrangements of α -alkoxysilanes: effect of substitutions at both the migrating benzylic carbon and the terminal sp^2 carbon of the allyl moiety

pp 849–860

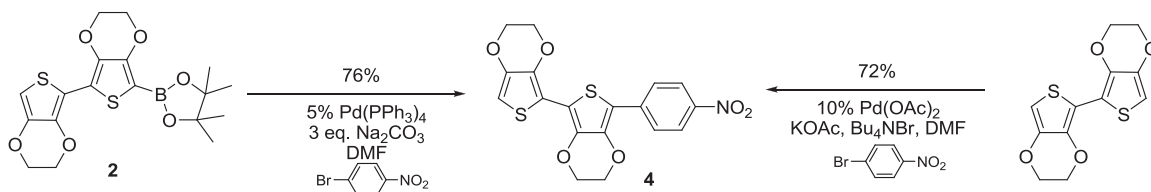
Edith N. Onyeozili, Luis M. Mori-Quiroz, Robert E. Maleczka, Jr.*



Synthesis of nitro- and amino-functionalized π -conjugated oligomers incorporating 3,4-ethylenedioxythiophene (EDOT) units

pp 861–866

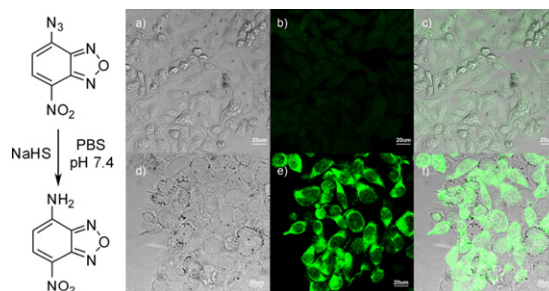
Gaëlle Trippé-Allard, Jean-Christophe Lacroix*



An NBD fluorophore-based colorimetric and fluorescent chemosensor for hydrogen sulfide and its application for bioimaging

pp 867–870

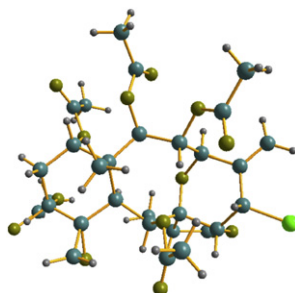
Guodong Zhou, Huilin Wang, Yang Ma, Xiaoqiang Chen*



Antifouling briarane type diterpenoids from South China Sea gorgonians *Dichotella gemmacea*

pp 871–880

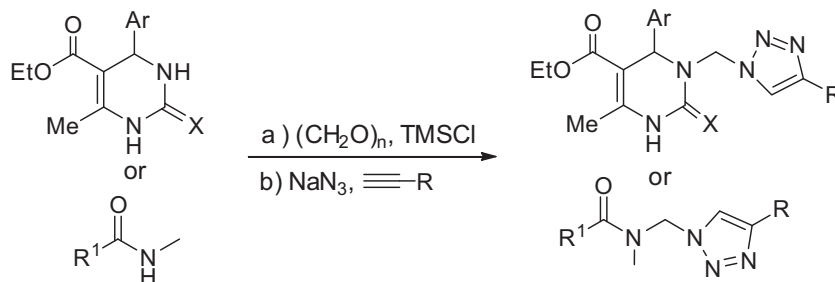
Jian-Fan Sun, Zhuang Han, Xue-Feng Zhou, Bin Yang, Xiuping Lin, Juan Liu, Yan Peng, Xian-Wen Yang, Yonghong Liu*



Copper-catalyzed click synthesis of functionalized 1,2,3-triazoles with 3,4-dihydropyrimidinone or amide group via a one-pot four-component reaction

pp 881–887

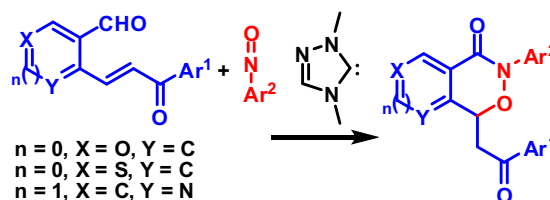
Zheng-Jun Quan*, Qiong Xu, Zhang Zhang, Yu-Xia Da, Xi-Cun Wang*



A versatile method for the synthesis of heterocyclic ring-fused 1,2-oxazinones from the NHC-catalyzed reactions of 2-arylvinylylaldehydes with nitrosoarenes

pp 888–894

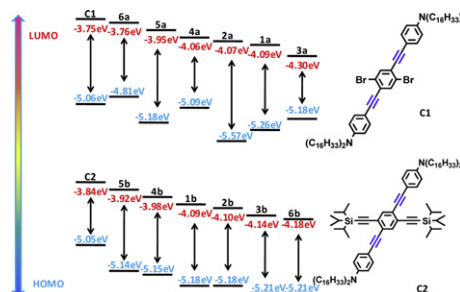
Jing Qu, Ying Cheng*



Energy-level modulation of organic alkynes by click chemistry

pp 895–901

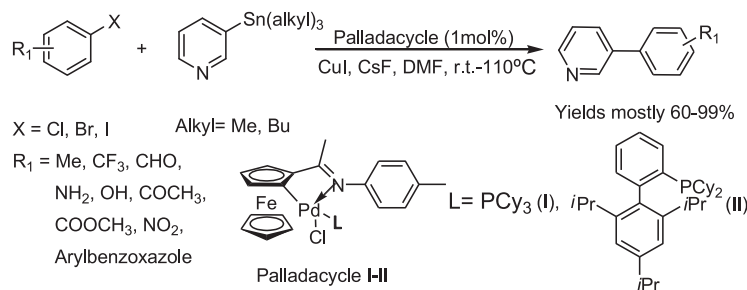
Dong Wang, Wanshu Zhang, Yan Xing, Hong Gao*, Xiangke Wang, Yuzhen Zhao, Huai Yang*



Facile synthesis of 3-arylpyridine derivatives by palladacycle-catalyzed Stille cross-coupling reaction

pp 902–909

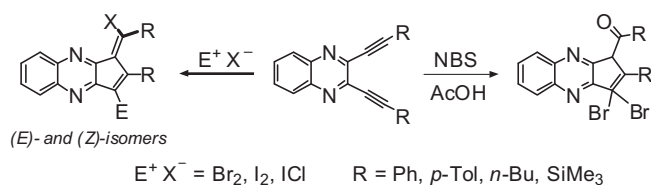
Gaizhi Ma, Yuting Leng*, Yusheng Wu, Yangjie Wu*



Electrophilic cyclizations of 2,3-dialkynylquinoxalines and 1,2-dialkynylbenzenes: a comparative study

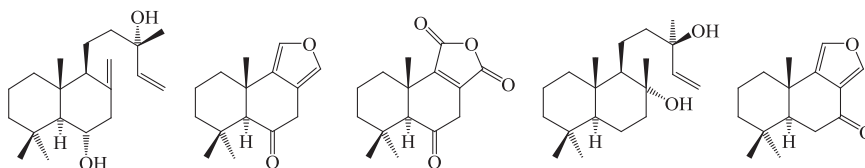
pp 910–917

Anna V. Gulevskaya*, Roman Yu Lazarevich, Alexander F. Pozharskii

**Regio- and stereoselective synthesis of (+)-6-ketoeryufuran, (+)-6-ketowinterin, and (–)-7-ketoeryufuran from accessible labdane diterpenoids (+)-larixol and (–)-sclareol**

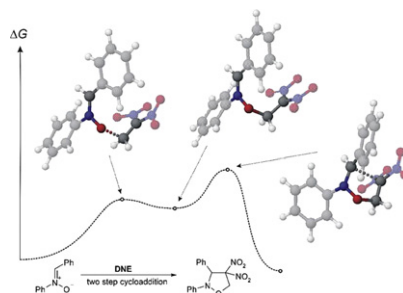
pp 918–926

Pavel F. Vlad*, Alexandru Ciocarlan, Carolina Edu, Aculina Aricu, Andrei Biriac, Mihai Coltsa, Michele D'Ambrosio*, Calin Deleanu, Alina Nicolescu, Sergiu Shova, Nicoleta Vornicu, Aede de Groot

**Competition between the one-step and two-step, zwitterionic mechanisms in the [2+3] cycloaddition of gem-dinitroethene with (Z)-C,N-diphenylnitrone: a DFT computational study**

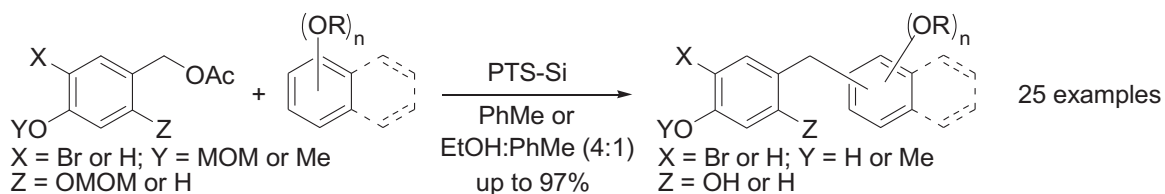
pp 927–932

Radomir Jasiński

**Facile synthesis of diarylmethanes via quinone methides**

pp 933–941

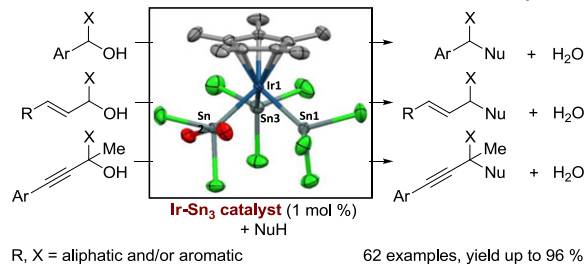
Kassrin Tangdenpaisal, Wong Phakhodee*, Somsak Ruchirawat, Poonsakdi Ploypradith*



Multimetallic Ir–Sn₃-catalyzed substitution reaction of π -activated alcohols with carbon and heteroatom nucleophiles

pp 942–956

Arnab Kumar Maity, Paresh Nath Chatterjee, Sujit Roy*

Atom Economic and Highly Catalytic Alkylation Reactions with Ir–Sn₃ Complex**CORRIGENDUM****Corrigendum to “A facile, moisture-insensitive method for synthesis of pillar[5]arenes—the solvent templation by halogen bonds” [Tetrahedron 68 (2012) 9419–9422]**

p 957

*Corresponding author

Supplementary data available via SciVerse ScienceDirect

Available online at www.sciencedirect.com**SciVerse ScienceDirect**Full text of this journal is available, on-line from **SciVerse ScienceDirect**. Visit www.sciencedirect.com for more information.

Abstracted/indexed in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts, Current Contents: Life Sciences, Current Contents: Physical, Chemical and Earth Sciences, Current Contents Search, Derwent Drug File, Ei compendex, EMBASE/ Excerpta Medica, Medline, PASCAL, Research Alert, Science Citation Index, SciSearch. Also covered in the abstract and citation database Sciverse SCOPUS®. Full text available on Sciverse ScienceDirect®



ELSEVIER

ISSN 0040-4020