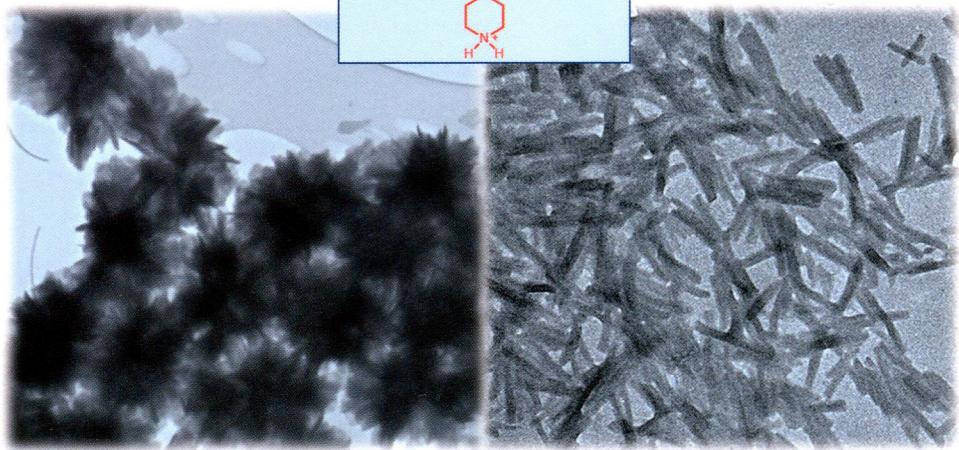
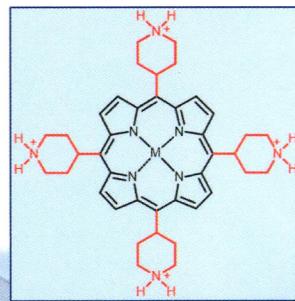


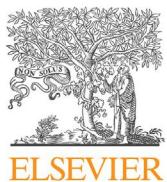
Tetrahedron

THE INTERNATIONAL JOURNAL FOR THE RAPID PUBLICATION OF FULL
ORIGINAL RESEARCH PAPERS AND CRITICAL REVIEWS IN ORGANIC CHEMISTRY

IN THIS ISSUE

Synthesis and nanostructures of 5,10,15,20-tetrakis(4-piperidyl)porphyrin



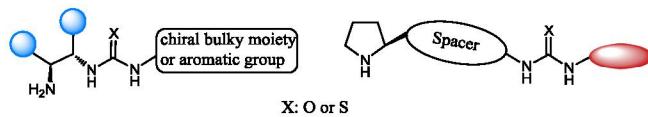


Tetrahedron Vol. 69, Issue 48, 2013

Contents

REPORT

- Primary and secondary amine-(thio)ureas and squaramides and their applications in asymmetric organocatalysis** pp 10199–10222
Michail Tsakos, Christoforos G. Kokotos*



ARTICLES

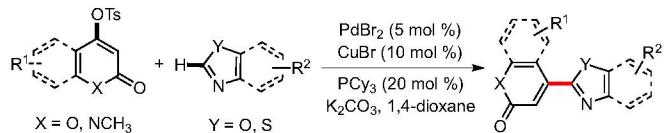
- Chiral benzisoselenazolones: conformational analysis based on experimental and DFT calculated ^{77}Se NMR** pp 10223–10229
Mariola Zielińska-Błajet, Przemysław J. Boratyński, Jerzy Palus, Jacek Skarżewski*



Generation of 4-substituted coumarins via C–H bond activation under palladium bromide–copper(I) bromide cooperative catalysis

pp 10230–10234

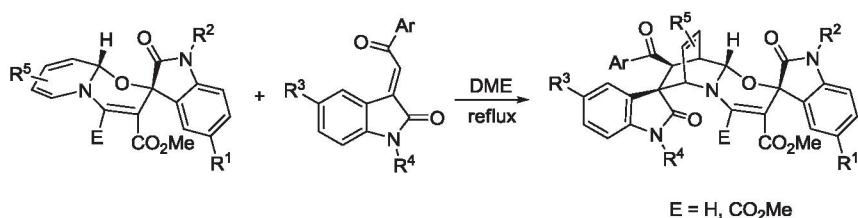
Jie Sheng, Congbin Fan, Jie Wu*



Diastereoselective synthesis of dispirooxindoline fused [1,3]oxazines via Diels–Alder reaction of functionalized 1,2-dihydropyridines with (E)-1,3-dihydro-3-phenacylidene-2H-indol-2-ones

pp 10235–10244

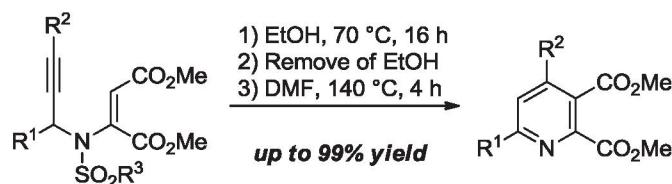
Jing Sun, Hui Gong, Chao-Guo Yan*



One-pot synthesis of pyridines from 3-aza-1,5-enynes

pp 10245–10248

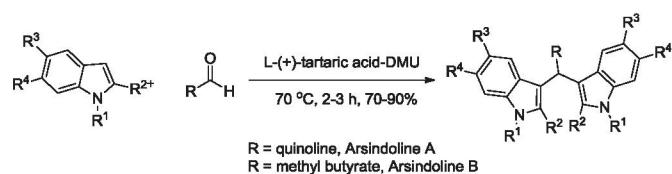
Xiaoyi Xin, Dongping Wang, Xincheng Li, Boshun Wan*



Synthesis of indole alkaloids arsindoline A, arsindoline B and their analogues in low melting mixture

pp 10249–10253

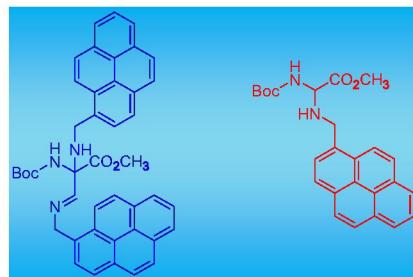
Rama Raju Jella, Rajagopal Nagarajan*



Synthesis and photophysical studies of new pyrenylamino acids

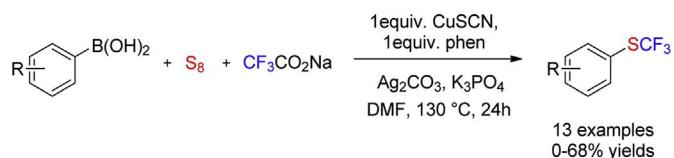
Goreti Pereira, Elisabete M.S. Castanheira*, Peter Schellenberg, M. Belsley, Paula M.T. Ferreira, Luís S. Monteiro

pp 10254–10261

**Copper-mediated oxidative trifluoromethylthiolation of aryl boronic acids with CF₃CO₂Na and elemental sulfur**

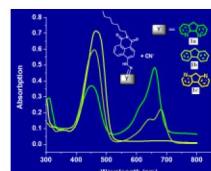
Lijuan Zhai, Yaming Li*, Jun Yin, Kun Jin, Rong Zhang, Xinmei Fu, Chunying Duan*

pp 10262–10266

**An investigation of the deprotonation of hydrazone-based receptors on interaction with anion: develop a colorimetric system distinguishing cyanide from anions**

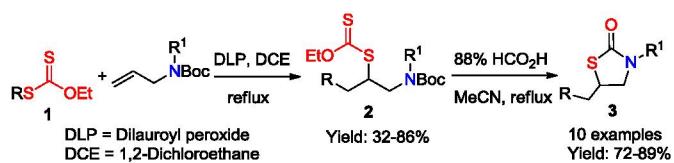
Jing Cao*, Xiao-Meng Wang

pp 10267–10271

**Efficient synthesis of 5-substituted thiazolidin-2-ones from xanthates and *tert*-butyl *N*-allylcarbamates**

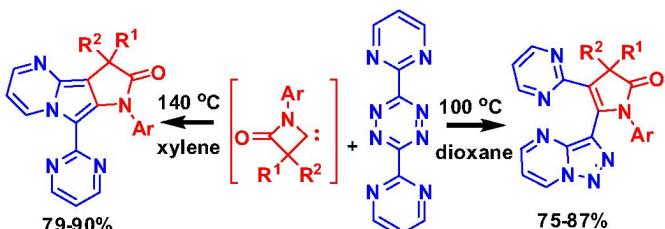
Zhongyan Huang, Jiaxi Xu*

pp 10272–10278



The reaction of β -lactam carbenes with 3,6-di(2-pyrimidinyl)tetrazine: regulating products by reaction conditions
Cai-Xia Yan, Yuan Zhao, Xiao-Rong Wang, Ying Cheng*

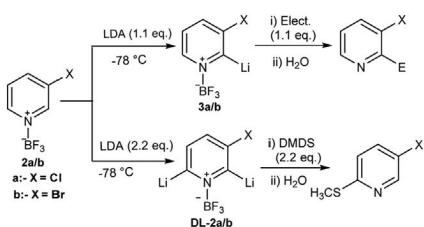
pp 10279–10283



A study on the BF_3 directed lithiation of 3-chloro- and 3-bromopyridine

pp 10284–10291

Jaspreet S. Dhau*, Amritpal Singh, Yoganjaneyulu Kasetti, Sonam Bhatia, Parsad V. Bharatam*, Paula Brandão, Vítor Félix, Kamal N. Singh

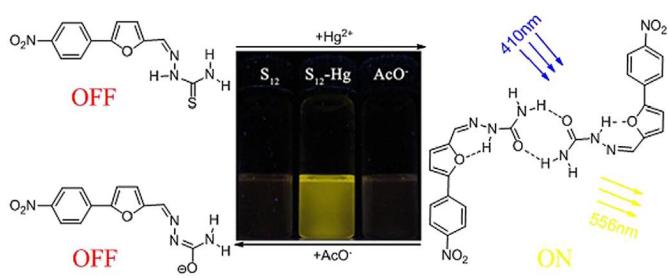


The reactions of 3-chloro- or 3-bromopyridine– BF_3 adduct with LDA (1.1 equiv) followed by quenching with benzaldehyde or iodine gave the C-2 substituted product. However, with 2.2 equiv of LDA and dimethyl disulfide, a C-6 substituted product was obtained.

A selective fluorogenic chemodosimeter for Hg^{2+} based on the dimerization of desulfurized product

pp 10292–10298

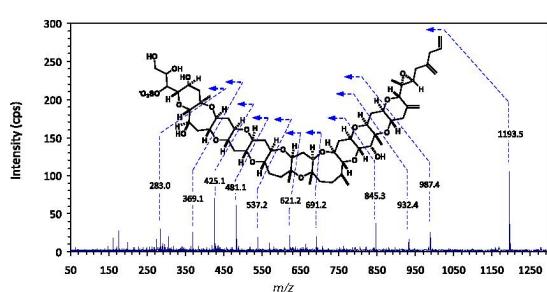
Peng Zhang, BingBing Shi, YouMing Zhang, Qi Lin, Hong Yao, XingMei You, TaiBao Wei*



Gambieroxide, a novel epoxy polyether compound from the dinoflagellate *Gambierdiscus toxicus* GTP2 strain

pp 10299–10303

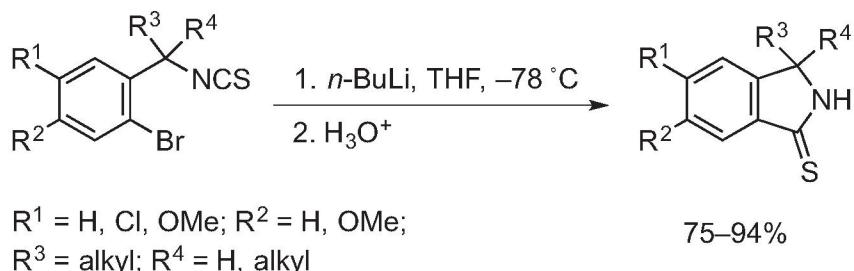
Ryuichi Watanabe*, Hajime Uchida, Toshiyuki Suzuki, Ryoji Matsushima, Mika Nagae, Yoshikazu Toyohara, Masayuki Satake, Yasukatsu Oshima, Akio Inoue, Takeshi Yasumoto



Synthesis of 2,3-dihydro-1*H*-isoindole-1-thiones via the bromine–lithium exchange between 1-bromo-2-(1-iso thiocyanatoalkyl)benzenes and butyllithium

pp 10304–10310

Kazuhiko Kobayashi*, Yuki Yokoi, Tatsuya Nakahara, Naoki Matsumoto

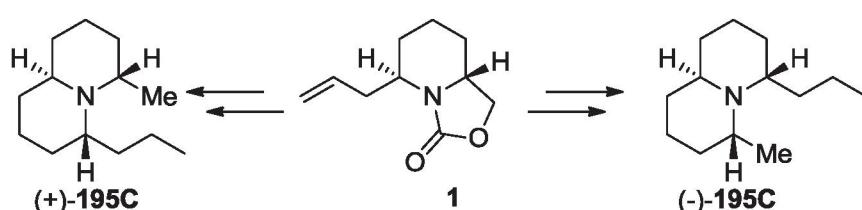


Enantiodivergent synthesis of the quinolizidine poison frog alkaloid 195C

Enantioconvergent synthesis of the quinonizolines

Xu Wang, Jie Li, Ralph A. Saporito, Naoki Toyooka*

pp 10311–10315

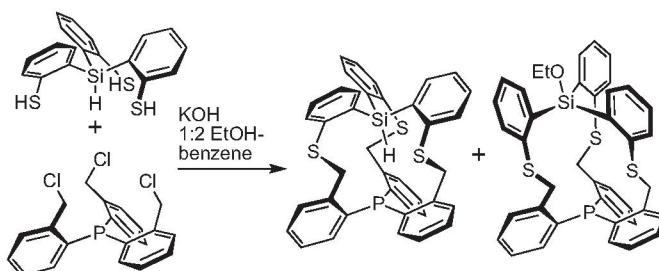


i+

Sterically congested macrobicycles with heteroatomic bridgehead functionality

Sterically congested macrobicycles with heteroatomic bridgedhead function

pp 10316–10321

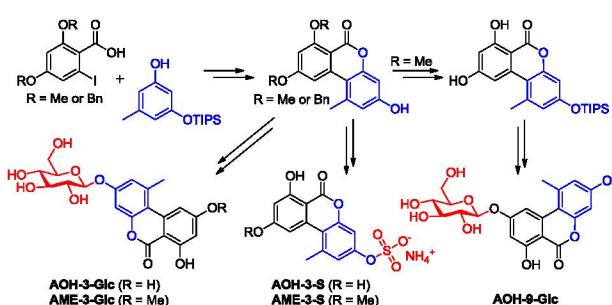


i+

Total synthesis of masked *Alternaria* mycotoxins—sulfates and glucosides of alternariol (AOH) and alternariol-9-methyl ether (AME)

pp 10322–10330

Hannes Mikula*, Philipp Skrinjar, Barbara Sohr, Doris Ellmer, Christian Hametner, Johannes Fröhlich



Synthesis of β -ketonitriles, α,β -alkynones and biscabinols from esters using *tert*-butoxide-assisted C(=O)–C (i.e., acyl–C) coupling under ambient conditions

pp 10331–10336

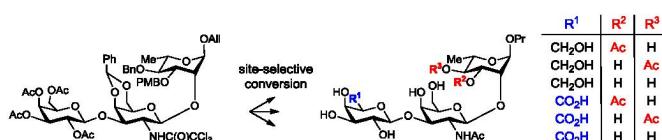
Bo Ram Kim, Hyung-Geun Lee, Seung-Beom Kang, Kwang-Ju Jung, Gi Hyeon Sung, Jeum-Jong Kim, Sang-Gyeong Lee, Yong-Jin Yoon*



Concise synthesis of di- and trisaccharides related to the O-antigens from *Shigella flexneri* serotypes 6 and 6a, based on late stage mono-O-acetylation and/or site-selective oxidation

pp 10337–10350

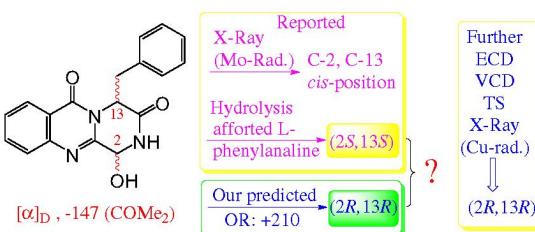
Pierre Chassagne, Laurent Raibaut, Catherine Guerreiro, Laurence A. Mular*



Challenges in the assignment of relative and absolute configurations of complex molecules: computation can resolve conflicts between theory and experiment

pp 10351–10356

Jie Ren, Guo-You Li, Lan Shen, Guo-Lin Zhang*, Laurance A. Nafie, Hua-Jie Zhu*

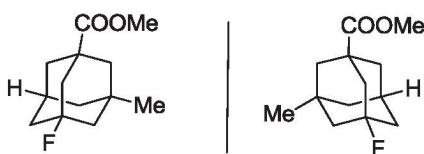


Transition state computations were performed for the conversion at the B3LYP/6-311++G(2d,p) level.

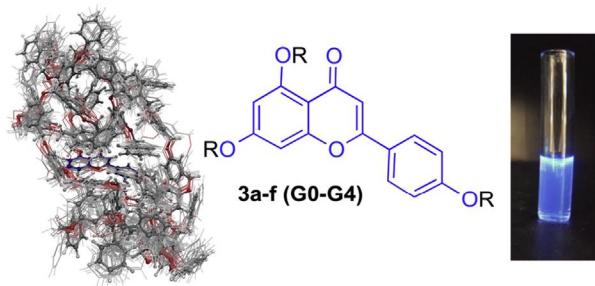
Synthesis of optically active fluoroadamantane derivative having different substituents on its *tert*-carbons and its use as a non-racemizable source for new optically active adamantane derivatives

pp 10357–10360

Motoshi Aoyama, Shoji Hara*

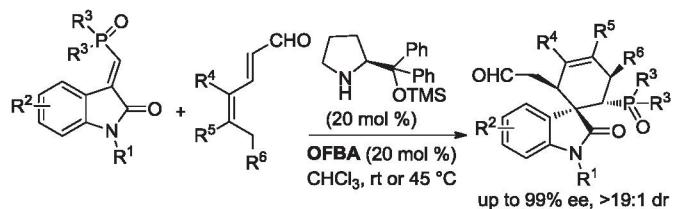


Size and branching effects on the fluorescence of benzylic dendrimers possessing one apigenin fluorophore at the core pp 10361–10368
 Petr Vinš, Martina Vermachová, Pavel Drašar, Melisa del Barrio, Carmen Jarne, Vicente L. Cebolla*, Abel de Cózar, Ronen Zangi, Fernando P. Cossío*



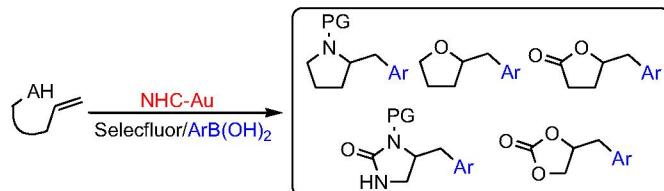
Aminocatalytic asymmetric Diels–Alder reaction of phosphorus dienophiles and 2,4-dienals
 Qing-Qing Zhou, Xin Yuan, You-Cai Xiao, Lin Dong, Ying-Chun Chen*

pp 10369–10374



N-Heterocyclic carbene–gold(I)-catalyzed carboheterofunctionalization of alkenes with arylboronic acids
 Shifa Zhu*, Lijuan Ye, Wanqing Wu, Huanfeng Jiang

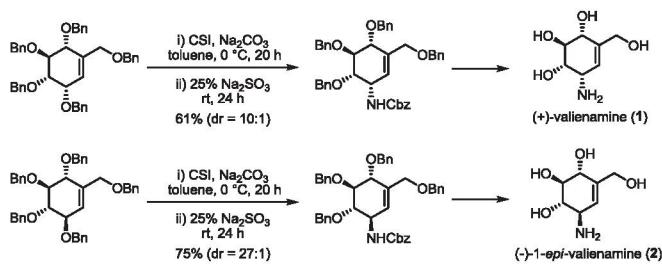
pp 10375–10383



Total synthesis of (+)-valienamine and (−)-1-*epi*-valienamine via a highly diastereoselective allylic amination of cyclic polybenzyl ether using chlorosulfonyl isocyanate

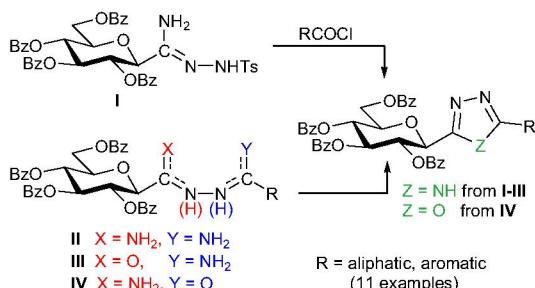
pp 10384–10390

Qing Ri Li, Seung In Kim, Sook Jin Park, Hye Ran Yang, A Reum Baek, In Su Kim, Young Hoon Jung*



C-(β -D-Glucopyranosyl)formamidrazones, formic acid hydrazides and their transformations into 3-(β -D-glucopyranosyl)-5-substituted-1,2,4-triazoles: a synthetic and computational study
 Éva Bokor, Attila Fekete, Gergely Varga, Béla Szőcs, Katalin Czifrák, István Komáromi*, László Somsák*

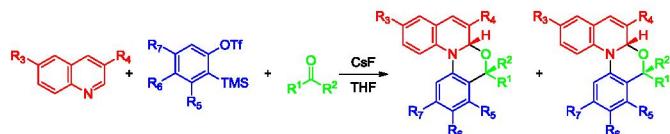
pp 10391–10404



Synthesis of benzo-annulated 1,3-oxazine derivatives through the multi-component reaction of arynes with N-heteroaromatics and aldehydes or ketones

pp 10405–10413

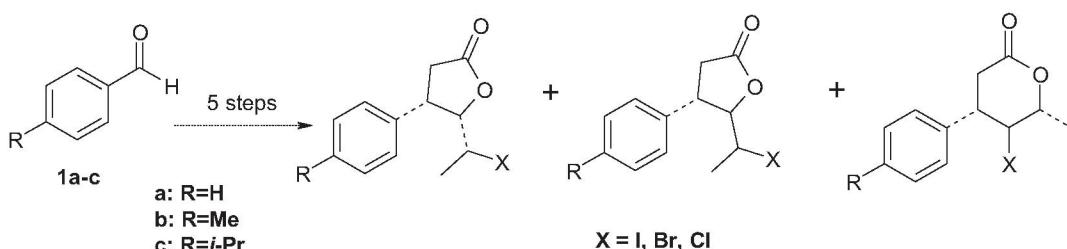
Peng Liu, Min Lei*, Lihong Hu*



Synthesis and anticancer activity of novel halolactones with β -aryl substituents from simple aromatic aldehydes

pp 10414–10423

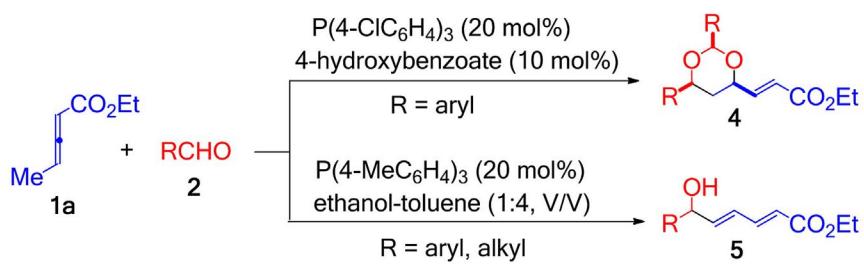
Witold Głodkowski*, Andrzej Skrobiszewski, Marcelina Mazur, Monika Siepka, Aleksandra Pawlak, Bożena Obmińska-Mrukowicz, Agata Białońska, Dominik Poradowski, Angelika Drynda, Mariusz Urbaniak



Phosphine-catalyzed formal vinylogous aldol reaction of γ -methyl allenoates with aldehydes: easy access to 1,3-dioxanes and dienols

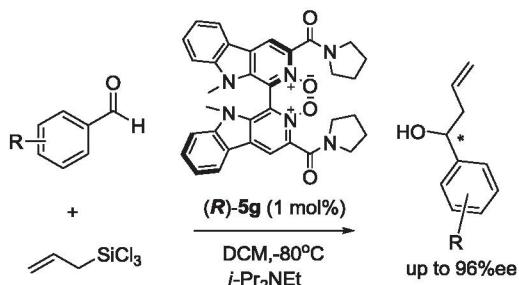
pp 10424–10430

Zifeng Qin, Renqin Ma, Silong Xu, Zhengjie He*



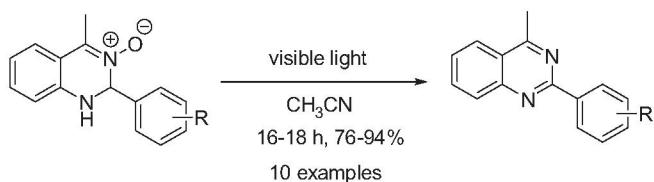
Addition of aldehydes with allyltrichlorosilane catalyzed by chiral bis-N–O secondary amides
 Yu Deng, Wei Pan, Yu-Ning Pei, Jin-Liang Li, Bing Bai, Hua-Jie Zhu*

pp 10431–10437



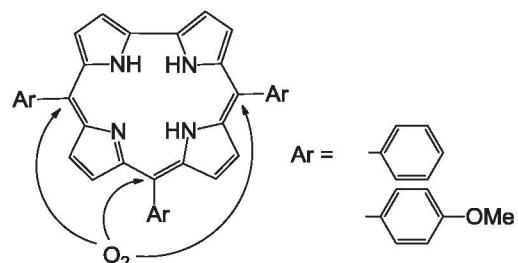
Visible light-mediated synthesis of quinazolines from 1,2-dihydroquinazoline 3-oxides
 Yi-Chou Chen, Ding-Yah Yang*

pp 10438–10444



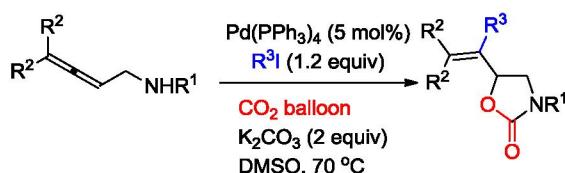
Photooxidation of unhindered triarylcorroles
 Jacek Wojaczyński*, Małgorzata Duszak, Lechosław Łatos-Grażyński

pp 10445–10449



Highly regioselective three-component palladium-catalyzed synthesis of 5-vinyloxazolidin-2-ones from 2,3-allenyl amines, organic iodides, and carbon dioxide
 Suhua Li, Juntao Ye, Weiming Yuan, Shengming Ma*

pp 10450–10456

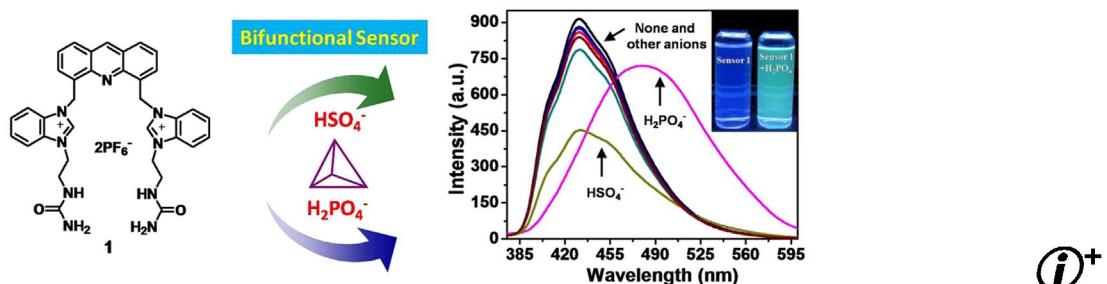


21 examples, mostly higher than 80% yields,



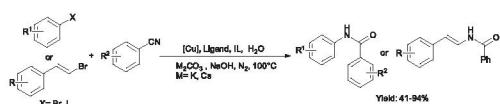
A bifunctional acridine-based fluorescent sensor: ratiometric sensing of H_2PO_4^- and obvious fluorescence quenching towards HSO_4^- through a synergistic binding effect of benzimidazolium and urea moieties pp 10457–10462

Dawei Zhang, XIAOZHI Jiang, Zhiyun Dong, Haiqiang Yang, Alexandre Martinez*, Guohua Gao*



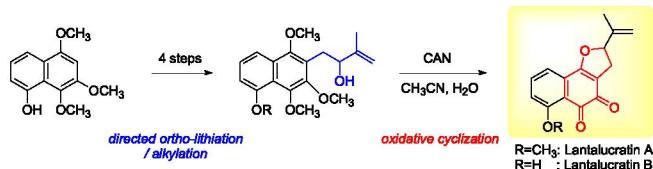
Copper catalyzed N-arylation between aryl halides and nitriles in water: an efficient tandem synthesis of benzilides pp 10463–10469

Jichao Wang, Xinchi Yin, Jun Wu, Datong Wu, Yuanjiang Pan*



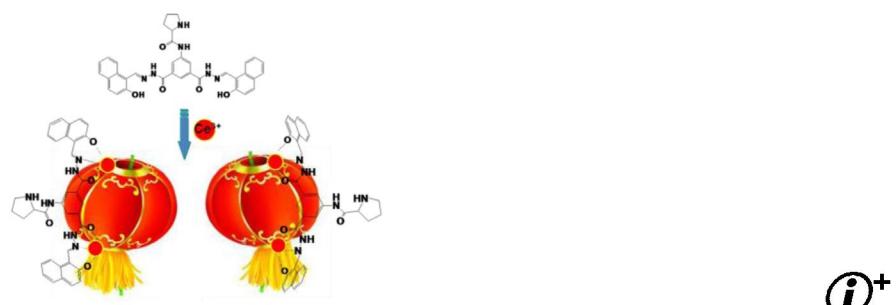
Total synthesis of (\pm)-lantalucratins A and B by CAN-mediated oxidative cyclization pp 10470–10476

Tokutaro Ogata, Yoshiko Sugiyama, Saki Ito, Kazuha Nakano, Eri Torii, Arisa Nishiuchi, Tetsutaro Kimachi*



Proline adducts of metallo-organic, sextuply-stranded lanterns as homogeneous catalysts for asymmetric catalysis pp 10477–10481

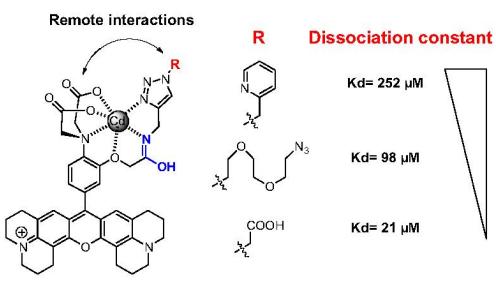
Wenting Zhu, Xiao Wu, Cheng He, Chunying Duan*



Unexpected remote effect in red fluorescent sensors based on extended APTRA

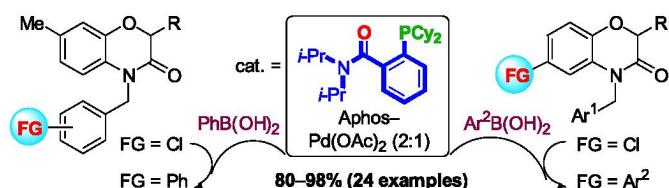
Mayeul Collot, Aurélie Lasoroski, Alsu I. Zamaleeva, Anne Feltz, Rodolphe Vuilleumier, Jean-Maurice Mallet*

pp 10482–10487

**Increasing appendage diversity on 3,4-dihydro-3-oxo-2H-1,4-benzoxazines via Aphos–Pd(OAc)₂-catalyzed Suzuki–Miyaura cross-coupling of aryl chlorides**

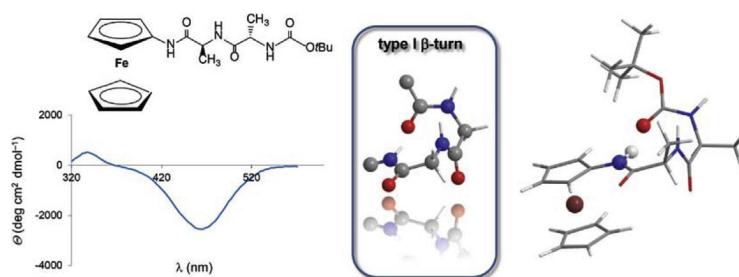
Gongli Yu, Yu Zheng, Jinlong Wu, Wei-Min Dai*

pp 10488–10496

**Ferrocene-dipeptide conjugates derived from aminoferrocene and 1-acetyl-1'-aminoferrocene: synthesis and conformational studies**

Veronika Kovač, Mojca Čakić Semenčić*, Ivan Kodrin*, Sunčica Roca, Vladimir Rapić

pp 10497–10506

**Synthesis and nanostructures of 5,10,15,20-tetrakis(4-piperidyl)porphyrin**

John L. Jacobsen, Patrick E. Berget, Michael C. Varela, Tony Vu, Neil E. Schore, Kathleen E. Martin, John A. Shelnutt, Luís M. Santos, Craig J. Medforth*

pp 10507–10515



Erratum

Erratum to 'Formation of 2-halomethylene-4-cyclopentene-1,3-diones and/or 2-halo-1,4-benzoquinones via ring-expansion of 4-ethynyl-4-hydroxy-2,3-substituted-2-cyclobuten-1-ones. Total synthesis of methyl linderone' [Tetrahedron 69 (2013) 9284–9293]

pp 10516–10518

Hong Yin, Shubhada W. Dantale, Novruz G. Akhmedov, Björn C.G. Söderberg*

COVER

A new water-soluble porphyrin T(4-Pip)P has been synthesized. T(4-Pip)P is structurally related to the classic water-soluble porphyrin T(4-Py)P (Py = pyridyl). One of the important difference between the two molecules is the solubility of T(4-Pip)P over an extended pH range. This is exploited to produce a range of binary ionic porphyrin nanostructures by ionic self-assembly.

*Corresponding author

ⓘ[†] Supplementary data available via ScienceDirect

Available online at www.sciencedirect.com

ScienceDirect

Full text of this journal is available, on-line from **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, PASCAL, Research Alert, Science Citation Index, SciSearch. Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®



ISSN 0040-4020