



Tetrahedron Vol. 67, Issue 47, 2011

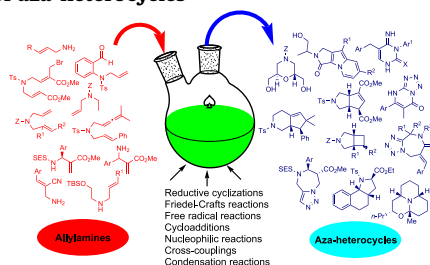
Contents

REPORT

Applications of allylamines for the syntheses of aza-heterocycles

Somnath Nag, Sanjay Batra*

pp 8959–9061



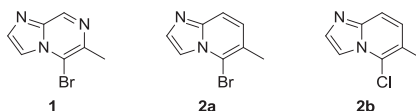
The synthetic applications of substituted allylamines for the preparation of diverse aza-heterocyclic systems employing nucleophilic reactions, lactamizations, cycloadditions, free radical reactions, cross-couplings and reductive cyclizations are reviewed.

ARTICLES

Synthesis of 5-bromo-6-methyl imidazopyrazine, 5-bromo and 5-chloro-6-methyl imidazopyridine using electron density surface maps to guide synthetic strategy

pp 9063–9066

Anthony R. Harris, Deane M. Nason, Elizabeth M. Collantes, Wenjian Xu, Yushi Chi, Zhihan Wang, Bingzhi Zhang, Qingjian Zhang, David L. Gray, Jennifer E. Davoren*

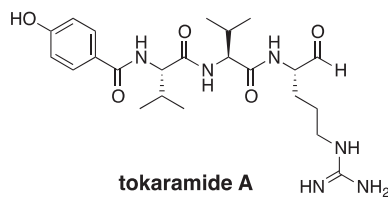


Small heteroaromatic rings are valuable monomers in drug discovery that can enable rapid access to novel and desirable chemical space. Installation of a synthetic handle on a heteroaromatic core may be difficult if steric and electronic factors are not in alignment with the desired transformation. Described are practical routes for the construction of 5-bromo-6-methyl imidazopyrazine (**1**) as well as 5-bromo and 5-chloro-6-methyl imidazopyridines (**2a** and **2b**), which were developed using electron density surface maps encoded with ionization potential to guide synthetic strategy.

Synthesis of tokaramide A, a cysteine protease inhibitor from marine sponge *Theonella aff. Mirabilis*

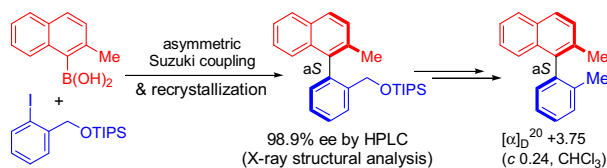
pp 9067–9071

Hiroyuki Konno*, Kazuto Nosaka, Kenichi Akaji

**Determination of absolute configuration of 2-methyl-1-(*o*-tolyl)naphthalene and the related axially chiral biaryls**

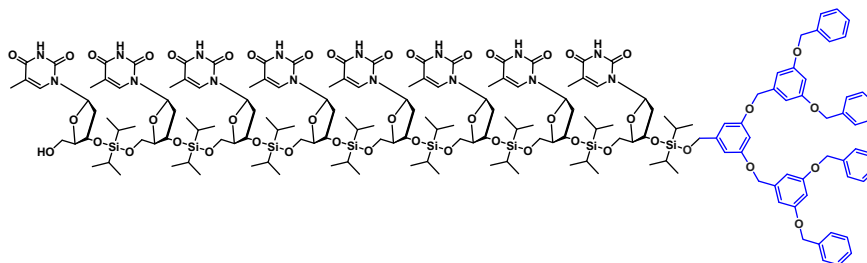
pp 9072–9079

Lijie Sun, Wei-Min Dai*

**Synthesis of dendritic oligodeoxyribonucleotide analogs with nonionic diisopropylsilyl linkage**

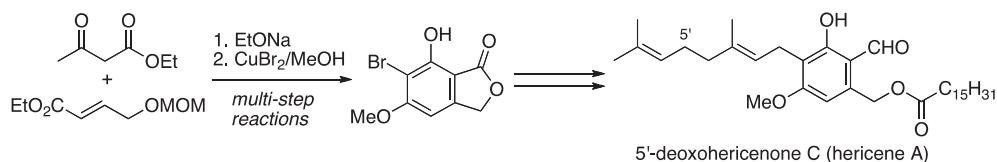
pp 9080–9086

Jin-Liang Lv, Zhi-Yong Zhao, Zhong-Qiang Yang, Dong-Sheng Liu*, Qing-Hua Fan*

**Rapid access to 6-bromo-5,7-dihydroxyphthalide 5-methyl ether by a CuBr₂-mediated multi-step reaction: concise total syntheses of hericenone J and 5'-deoxyhericenone C (hericene A)**

pp 9087–9092

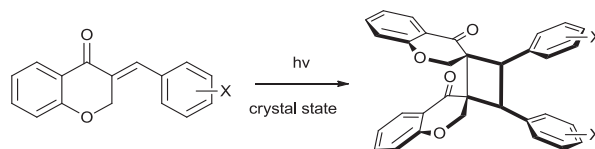
Shoji Kobayashi*, Ami Ando, Hiroyuki Kuroda, Shota Ejima, Araki Masuyama, Ilhyong Ryu



Topochemical photodimerization of (*E*)-3-benzylidene-4-chromanone derivatives from β -type structures directed by halogen groups

Xue-Ming Cheng, Zhi-Tang Huang, Qi-Yu Zheng*

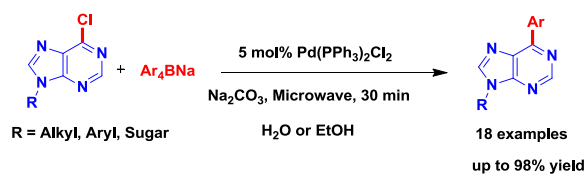
pp 9093–9098



Microwave promoted palladium-catalyzed Suzuki–Miyaura cross-coupling reactions of 6-chloropurines with sodium tetraarylborate in water

Gui-Rong Qu*, Peng-Yang Xin, Hong-Ying Niu, Xin Jin, Xiao-Ting Guo, Xi-Ning Yang, Hai-Ming Guo*

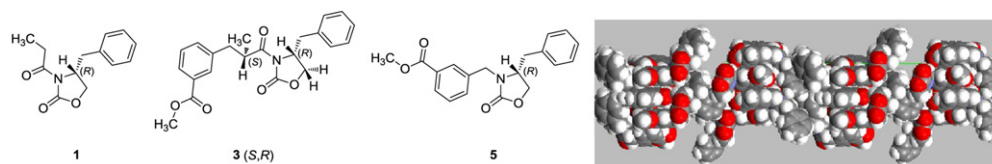
pp 9099–9103



Oxazolidinone cross-alkylation during Evans' asymmetric alkylation reaction

Nieves Fresno, Ruth Pérez-Fernández*, Pilar Goya, M^a Luisa Jimeno, Ibón Alkorta, José Elguero, Laura Menéndez-Taboada*, Santiago García-Granda

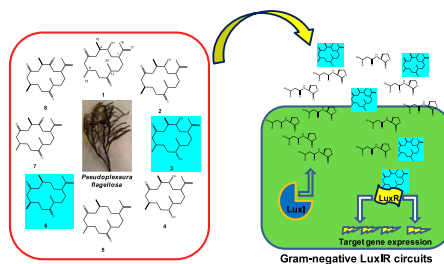
pp 9104–9111



Absolute stereochemistry of antifouling cembranoid epimers at C-8 from the Caribbean octocoral *Pseudoplexaura flagellosa*. Revised structures of plexaurolones

Edisson Tello, Leonardo Castellanos, Catalina Arevalo-Ferro, Jaime Rodríguez, Carlos Jiménez, Carmenza Duque*

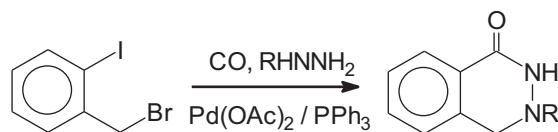
pp 9112–9121



Synthesis of tetrahydrophthalazine and phthalamide (phthalimide) derivatives via palladium-catalysed carbonylation of iodoarenes

pp 9122–9128

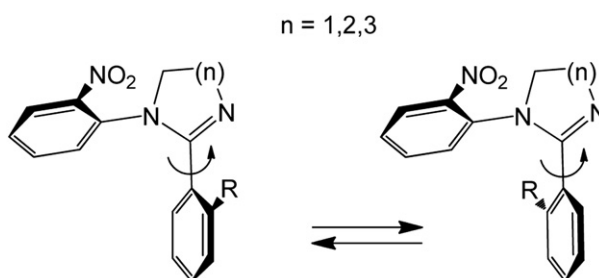
Diána Marosvölgyi-Haskó, Andrea Petz, Attila Takács, László Kollár*



Conformation and stereodynamics of 1,2-diaryltetrahydropyrimidine and of its five- and seven-membered ring analogs

pp 9129–9133

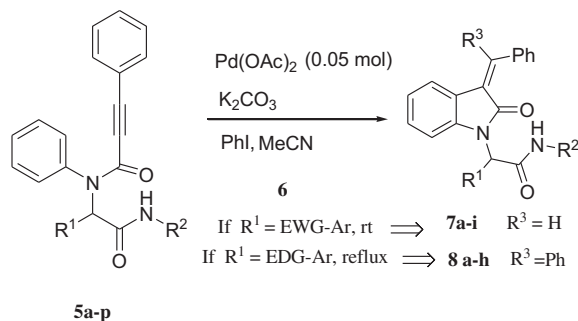
Jimena E. Díaz, Nadia Gruber, Lodovico Lunazzi, Andrea Mazzanti*, Liliana R. Orelli*



Pd-catalyzed synthesis of 3-(diarylmethylene)-2-oxindoles and 3-(arylmethylene)-2-oxindoles

pp 9134–9141

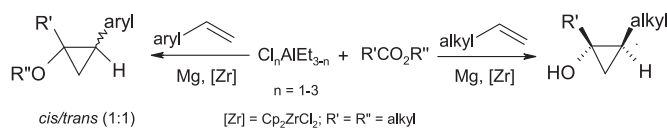
Saeed Balalaie*, Hassan Motaghedi, Morteza Bararjanian, Daryoush Tahmassebi*, Hamid Reza Bijanzadeh



Zirconium-catalyzed cyclopropanation of α -olefins mediated by $R'\text{CO}_2R''$ and $\text{Cl}_n\text{AlEt}_{3-n}$

pp 9142–9147

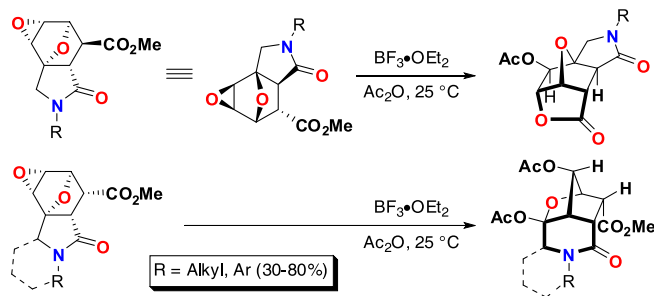
Leila O. Khafizova*, Rinat R. Gubaidullin, Usein M. Dzhemilev



Skeletal Wagner–Meerwein rearrangement of perhydro-3a,6;4,5-diepoxyisoindoles

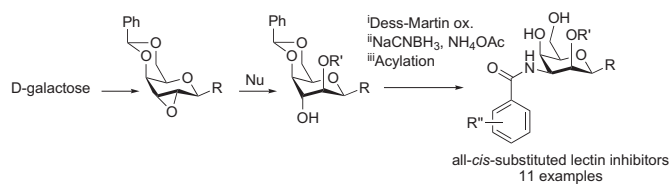
pp 9148–9163

Fedor I. Zubkov*, Vladimir P. Zaytsev, Eugeniya V. Nikitina, Victor N. Khurstalev, Sergey V. Gozun, Ekaterina V. Boltukhina, Alexey V. Varlamov

**Synthesis of 3-amido-3-deoxy-β-D-talopyranosides: all-cis-substituted pyranosides as lectin inhibitors**

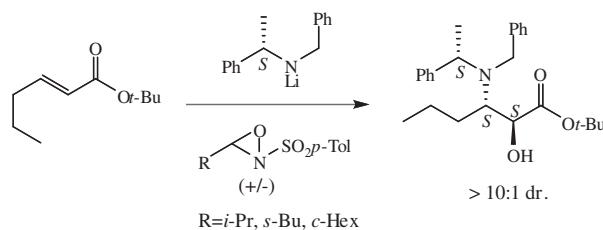
pp 9164–9172

Christopher T. Öberg, Ann-Louise Noresson, Hakon Leffler, Ulf J. Nilsson*

**Racemic N-sulfonyloxaziridines as highly diastereoselective enolate hydroxylating agents: enantioselective synthesis of (2S,3S)-3-amino-N-cyclopropyl-2-hydroxyhexanamide**

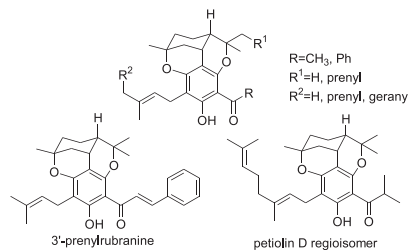
pp 9173–9178

Eleonóra Kiss, István E. Markó*, Michel Guillaume

**Efficient synthesis of polycycles bearing prenylated, geranylated, and farnesylated citrans: application to 3'-prenylrubranine and petiolin D regioisomer**

pp 9179–9184

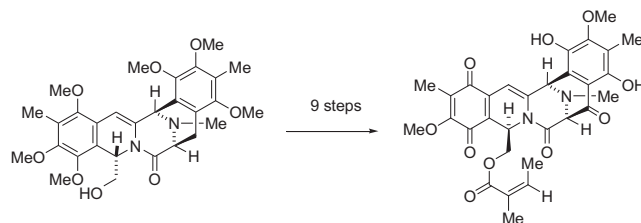
Xue Wang, Yong Rok Lee*



Chemistry of renieramycins. Part 11: Total synthesis of (±)-cribrostatin 4

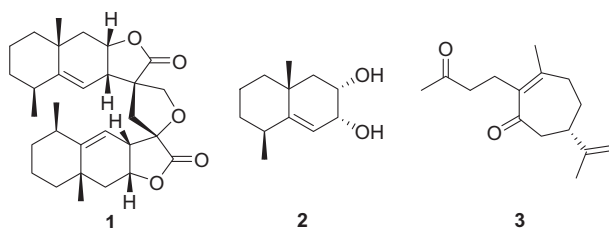
pp 9185–9192

Masashi Yokoya, Hiroshi Ito, Naoki Saito*

**Sesquiterpenoids, alantolactone analogues, and *seco*-guaiene from the roots of *Inula helenium***

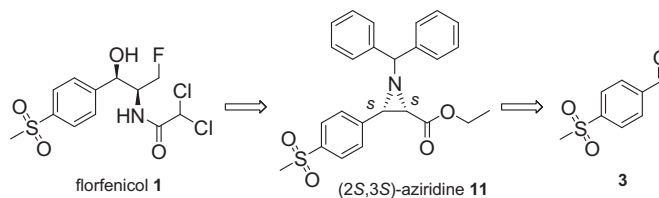
pp 9193–9198

Hai-Long Jiang, Jia Chen, Xiao-Jie Jin, Jun-Li Yang, Ya Li, Xiao-Jun Yao*, Quan-Xiang Wu*

**An efficient enantioselective synthesis of florfenicol via asymmetric aziridination**

pp 9199–9203

Zhonghua Wang, Feng Li, Lei Zhao, Qiuqin He, Fener Chen*, Chen Zheng

**The application of Stille cross-coupling reactions with multiple nitrogen containing heterocycles**

pp 9204–9213

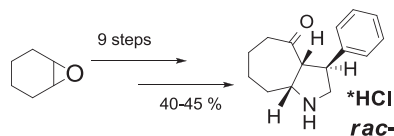
Roland Selig, Dieter Schollmeyer, Wolfgang Albrecht, Stefan Laufer*



Synthesis of (3*RS*,3*aSR*,8*aSR*)-3-phenyloctahydrocyclohepta[*b*]pyrrol-4(1*H*)-one via the aza-Cope–Mannich rearrangement

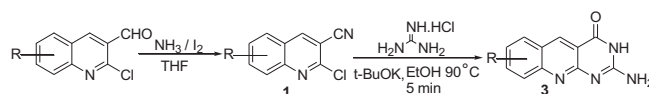
pp 9214–9218

Dmitry S. Belov, Evgeny R. Lukyanenko, Alexander V. Kurkin*, Marina A. Yurovskaya

**Base-catalyzed cyclization reaction of 2-chloroquinoline-3-carbonitriles and guanidine hydrochloride: a rapid synthesis of 2-amino-3*H*-pyrimido[4,5-*b*]quinolin-4-ones**

pp 9219–9224

Atish Chandra, Shraddha Upadhyay, Bhawana Singh, Neha Sharma, Radhey M. Singh*



*Corresponding author

Supplementary data available via 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, Medline, PASCAL, Research Alert, Science Citation Index, SciSearch. Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®



ELSEVIER

ISSN 0040-4020