Tetrahedron 65 (2009) 2377–2385

Contents lists available at ScienceDirect

Tetrahedron

journal homepage: www.elsevier.com/locate/tet

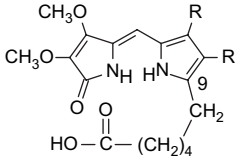
Tetrahedron Vol. 65, No. 12, 2009

Contents

REPORT

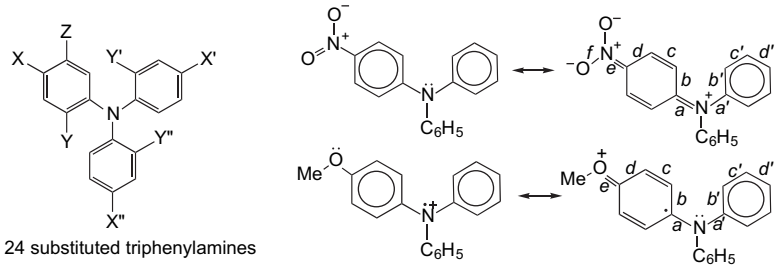
Methods for the synthesis of 2-substituted 2-imidazolines are reviewed. While older, more established methods continue to be used for the preparation of these compounds, more recent reports describe techniques that provide multiple points of diversity, making them especially useful in library development for this pharmacologically-important class of compounds.

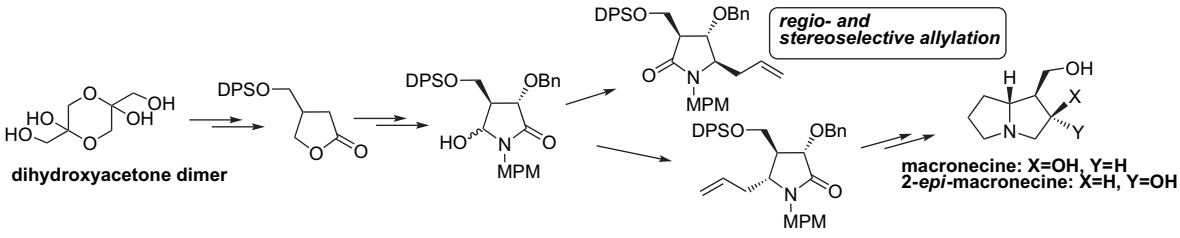
ARTICLES

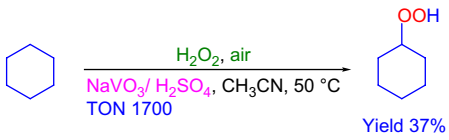


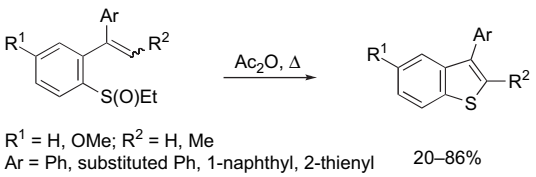
1: R = OCH_3; **2**: R = CH_3

Synthesized from the corresponding 9*H*-dipyrrinones, [6]-semirubins **1** and **2** were shown to be intramolecularly hydrogen-bonded in $CDCl_3$ by ^1H NMR and monomeric in $CHCl_3$ by vapor pressure osmometry. Yet X-ray crystallography of **1** indicates intermolecular hydrogen-bonded dimers.



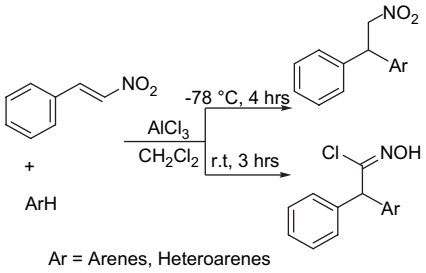




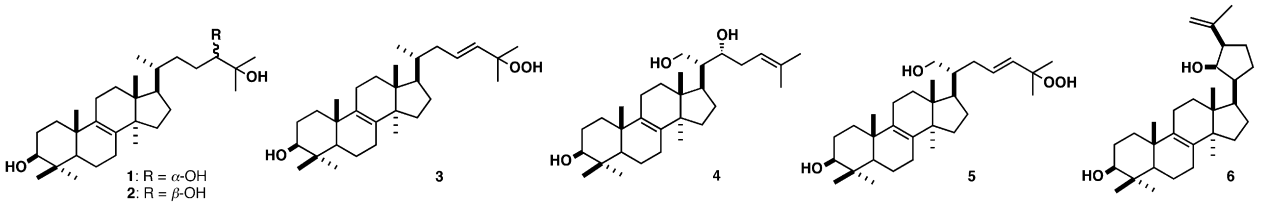


An efficient method for the synthesis of α-arylated nitroalkanes and α-arylated hydroximoyl chlorides mediated by $AlCl_3$ **pp 2436–2442**
Zhijay Tu, B. Rama Raju, Tzuo-Rung Liou, Veerababurao Kavala, Chun-Wei Kuo, Yaochung Jang, Yu-Hsuan Shih, Chun-Chao Wang, Ching-Fa Yao*

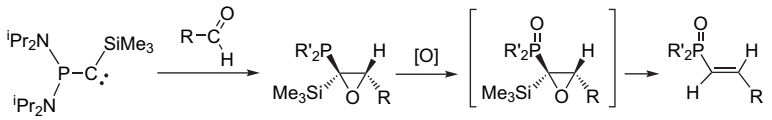
Friedel–Crafts alkylation of various arenes/heteroarenes to β-nitrostyrenes mediated by aluminum chloride is described. The interesting feature of this methodology pertain the formation of different products by tuning the reaction temperature. α-Arylated nitroalkanes were formed predominately at −78 °C, whereas α-arylated hydroximoyl chlorides were obtained at room temperature without any side products in high yields.



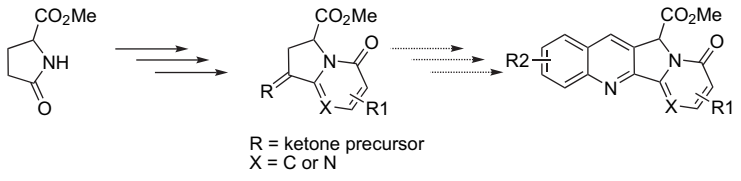
Absolute stereostructures of inoterpenes A–F from sclerotia of *Inonotus obliquus* **pp 2443–2450**
Seikou Nakamura, Junko Iwami, Hisashi Matsuda, Shuichi Mizuno, Masayuki Yoshikawa*

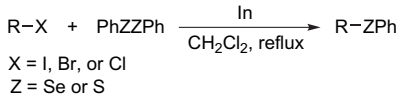


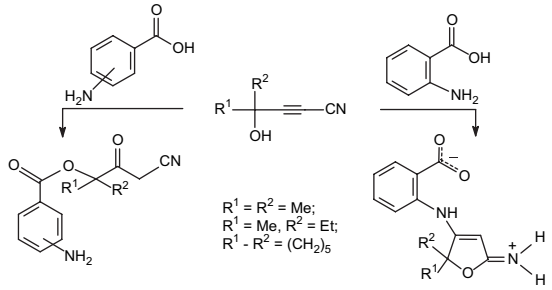
A stereoselective synthetic entry to β-substituted α-[(*trans*)-vinyl] phosphonamides **pp 2451–2454**
Ona Illa, Sergio Celis, Aimée El-Kazzi, Heinz Gornitzka, Antoine Baceiredo, Vicenç Branchadell, Rosa M. Ortuño*

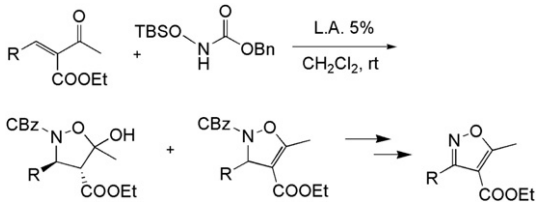


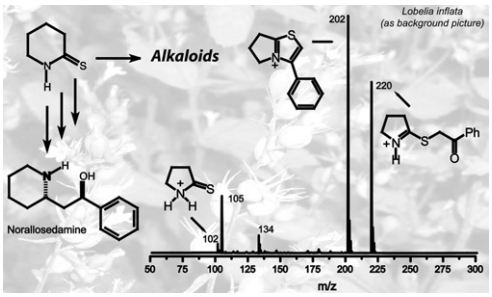
Toward new camptothecins. Part 5: On the synthesis of precursors for the crucial Friedländer reaction **pp 2455–2466**
Thomas Boisse, Laurent Gavara, Jean-Pierre Hénichart, Benoît Rigo*, Philippe Gautret*

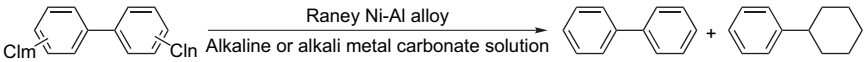


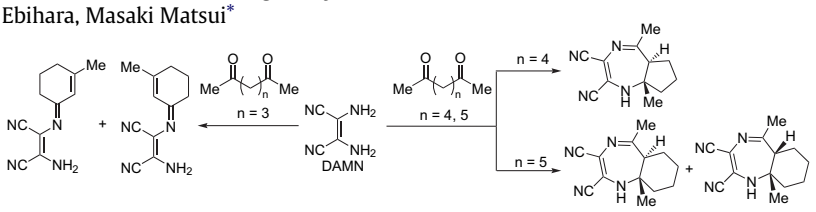




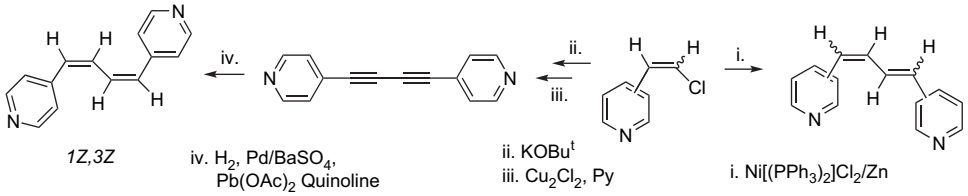


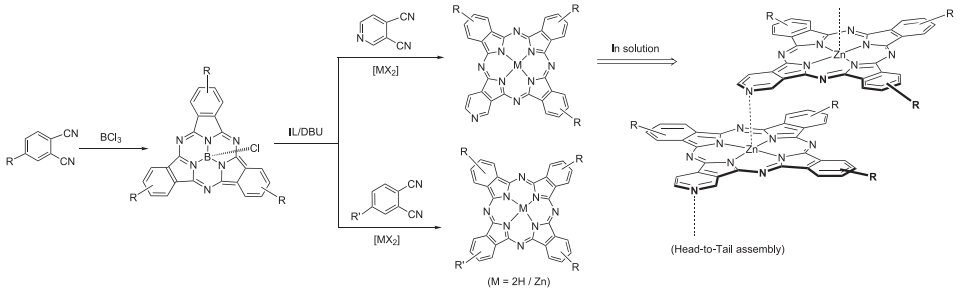


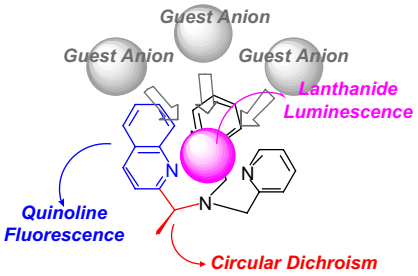




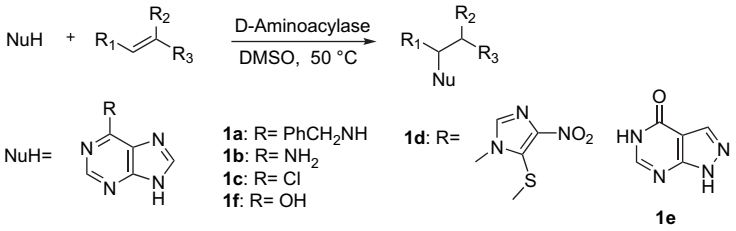
2,3-Diaminomaleonitrile (DAMN) was allowed to react with 2,6-heptanedione to produce (2*Z*)-2-amino-3-[(1*E*)-3-methylcyclohex-2-enylideneamino]but-2-enedinitrile and (2*Z*)-2-amino-3-[(1*Z*)-3-methylcyclohex-2-enylideneamino]but-2-enedinitrile. The reaction of DAMN with 2,7-octanedione yielded *trans*-5,8a-dimethyl-1,5a,6,7,8,8a-hexahydrocyclopenta[*e*]-1,4-diazepine-2,3-dicarbonitrile. DAMN reacted with 2,8-nonanedione to afford *trans*- and *cis*-5,9a-dimethyl-5a,6,7,8,9,9a-hexahydro-1*H*-benzo[*e*]-1,4-diazepine-2,3-dicarbonitrile.

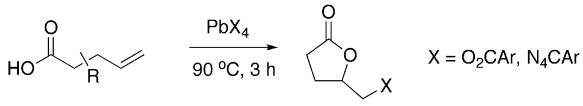


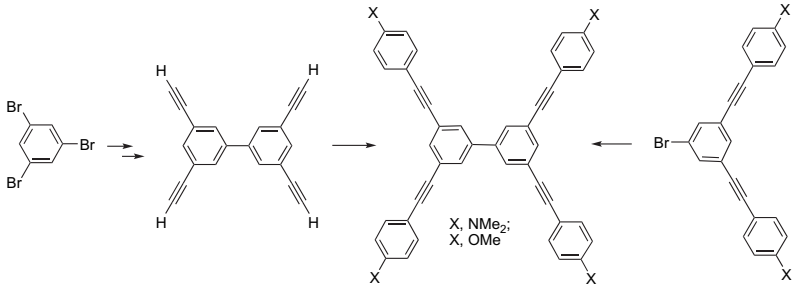


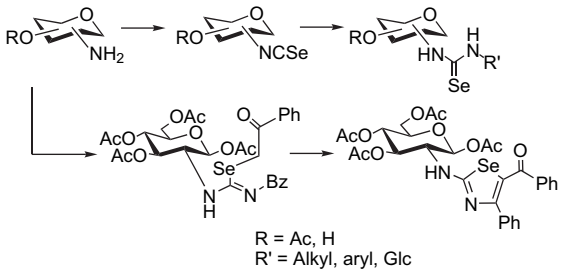


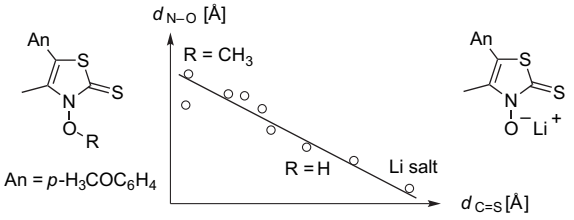
The chiral tripode–lanthanide complexes exhibited anion-responsive fluorescence, luminescence, and circular dichroism spectral characteristics as multiple anion-sensing probes.

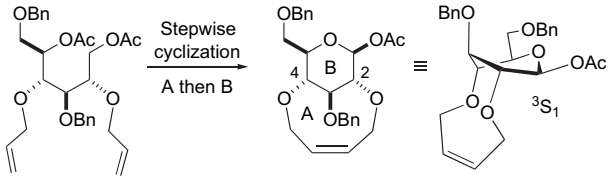


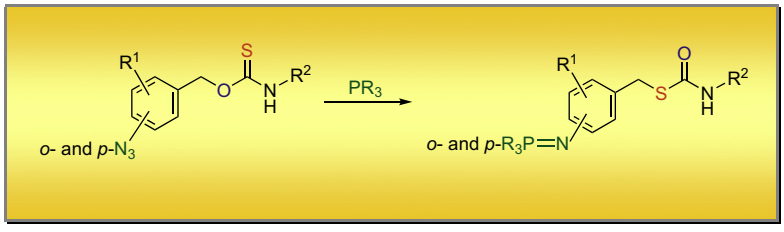


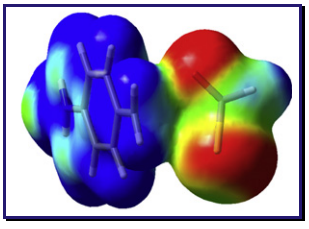




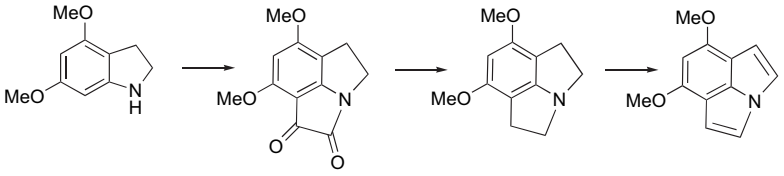


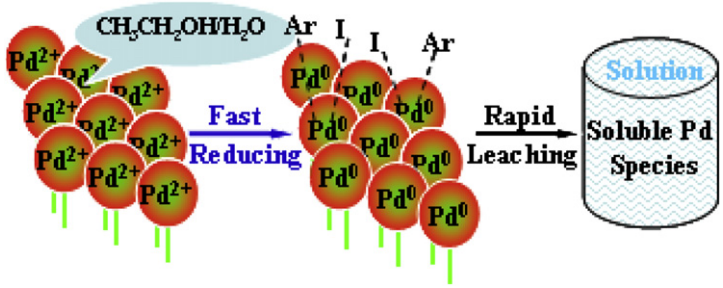


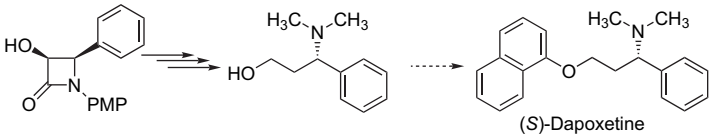




Transition state of the O to S benzyl shift







OTHER CONTENT

*Corresponding author
Supplementary data available via ScienceDirect

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