Synthesis of Heterocycles through a Ruthenium-Catalyzed Tandem Ring-Closing Metathesis/Isomerization/N-Acyliminium Cyclization Sequence - DTU Orbit (28/02/2019)

Synthesis of Heterocycles through a Ruthenium-Catalyzed Tandem Ring-Closing Metathesis/Isomerization/N-Acyliminium Cyclization Sequence

Tandem bicycle: In the title reaction double bonds created during ring-closing metathesis isomerize to generate reactive iminium intermediates that undergo intramolecular cyclization reactions with tethered heteroatom and carbon nucleophiles. In this way, a series of biologically interesting heterocyclic compounds can be made, including a known precursor for the total synthesis of the antiparasitic natural product harmicine.

General information
State: Published
Organisations: Organic Chemistry, Department of Chemistry, Department of Organic Chemistry
Contributors: Ascic, E., Jensen, J. F., Nielsen, T. E.
Pages: 5188-5191
Publication date: 2011
Peer-reviewed: Yes

Publication information
Volume: 50
Issue number: 22
ISSN (Print): 1433-7851
Ratings:
  BFI (2019): BFI-level 2
  Web of Science (2019): Indexed yes
  BFI (2018): BFI-level 2
  Web of Science (2018): Indexed yes
  BFI (2017): BFI-level 2
  Scopus rating (2017): CiteScore 11.31 SJR 6.155 SNIP 2.165
  Web of Science (2017): Impact factor 12.102
  Web of Science (2017): Indexed yes
  BFI (2016): BFI-level 2
  Scopus rating (2016): CiteScore 10.8 SJR 5.954 SNIP 2.146
  Web of Science (2016): Impact factor 11.994
  Web of Science (2016): Indexed yes
  BFI (2015): BFI-level 2
  Scopus rating (2015): CiteScore 11.13 SJR 5.888 SNIP 2.225
  Web of Science (2015): Indexed yes
  BFI (2014): BFI-level 2
  Scopus rating (2014): CiteScore 10.84 SJR 5.811 SNIP 2.307
  Web of Science (2014): Indexed yes
  BFI (2013): BFI-level 2
  Scopus rating (2013): CiteScore 10.7 SJR 5.702 SNIP 2.198
  Web of Science (2013): Impact factor 11.336
  ISI indexed (2013): ISI indexed yes
  Web of Science (2013): Indexed yes
  BFI (2012): BFI-level 2
  Scopus rating (2012): CiteScore 10.55 SJR 6.407 SNIP 2.329
  Web of Science (2012): Impact factor 13.734
  ISI indexed (2012): ISI indexed yes
  Web of Science (2012): Indexed yes
  BFI (2011): BFI-level 2
  Scopus rating (2011): CiteScore 10.75 SJR 6.063 SNIP 2.361
  Web of Science (2011): Impact factor 13.455
  ISI indexed (2011): ISI indexed yes
Keywords: cyclization, isomerization, metathesis, ruthenium, tandem reactions

Bibliographical note
This work was supported by the Technical University of Denmark, the Danish Council for Strategic Research, the Danish Council for Independent Research, Natural Sciences, Technology and Production Sciences, the Lundbeck Foundation, the Carlsberg Foundation, and the Torkil Holm Foundation. We thank Prof. David Tanner for valuable discussions.