

How To...

Explore by Research Topic

Use SciFinder® to explore an area of research by entering a phrase or sentence in English. SciFinder uses relationships among the key words to quickly retrieve results that are relevant to your research interests.

1. Enter a topic of interest. Click **Search**.

Tips:

- Specify two or three concepts using plain English.
- Include prepositions and articles to connect the concepts.
- Place acronyms or synonyms in parentheses after the synonymous concept.
- Use "not" or "except" to exclude a particular term.
- Use limits to reduce the number of results in your answer set.

Explore References

Research Topic	Research Topic ⓘ	<input type="text" value="intramolecular hydroamination of aminoalkenes"/>	<input type="button" value="Search"/>
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Examples:
The effect of antibiotic residues on dairy products
Photocyanation of aromatic compounds

Publication Year(s) ⓘ	<input type="text"/>
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Examples: 1995, 1995-1999, 1995-, -1995

Document Type(s) ⓘ	<input type="checkbox"/> Biography	<input type="checkbox"/> Dissertation	<input type="checkbox"/> Patent
	<input type="checkbox"/> Book	<input type="checkbox"/> Editorial	<input type="checkbox"/> Preprint
	<input type="checkbox"/> Clinical Trial	<input type="checkbox"/> Historical	<input type="checkbox"/> Report
	<input type="checkbox"/> Commentary	<input type="checkbox"/> Journal	<input type="checkbox"/> Review
	<input type="checkbox"/> Conference	<input type="checkbox"/> Letter	

Language(s) ⓘ	<input type="checkbox"/> Chinese	<input type="checkbox"/> German	<input type="checkbox"/> Polish
	<input type="checkbox"/> English	<input type="checkbox"/> Italian	<input type="checkbox"/> Russian
	<input type="checkbox"/> French	<input type="checkbox"/> Japanese	<input type="checkbox"/> Spanish

Author Name ⓘ	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Last *	First	Middle

Company Name ⓘ	<input type="text"/>
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Examples:
Minnesota Mining and Manufacturing
DuPont

Start with a broad search or apply limits such as publication year(s) and document types.

LIMIT BY...	WHEN YOU WANT TO ELIMINATE ALL REFERENCES EXCEPT THOSE FROM...
Publication year	A particular time period.
Document type	Certain type(s) of documents.
Language	Particular languages.
Author name	A specific author.
Company Name	A specific company or organization.

SciFinder automatically searches related terms and considers alternate spellings and word endings when retrieving results.

2. Select candidate references of interest according to the relationship of the terms and concepts within records. Click **Get References**.

Research Topic Candidates

5 Topics 1 Selected

[Select All](#) [Deselect All](#)

	Research Topic Candidates	References
<input type="checkbox"/>	13 references were found containing "intramolecular hydroamination of aminoalkenes" as entered.	13
<input checked="" type="checkbox"/>	94 references were found containing the two concepts "intramolecular hydroamination" and "aminoalkenes" closely associated with one another.	94
<input type="checkbox"/>	126 references were found where the two concepts "intramolecular hydroamination" and "aminoalkenes" were present anywhere in the reference.	126
<input type="checkbox"/>	621 references were found containing the concept "intramolecular hydroamination" .	621
<input type="checkbox"/>	670 references were found containing the concept "aminoalkenes" .	670

Get References

Tips:

SCIFINDER CONSIDERS TERMS TO BE...	WHEN THE TERMS ARE FOUND...
"As entered"	Exactly as you have entered them.
"Closely associated with one another"	Within the same sentence or title.
"Present anywhere within a reference"	Anywhere (perhaps widely separated) within a record's title, abstract, or indexing.
"Containing the concept"	In the record. The entered term(s), synonymous term(s), or similar term(s) are found within the record.

3. Review your answers.

The search terms are highlighted in the title and abstract.

References Get Substances Get Reactions Get Related Tools Send to SciPlanner

94 References 0 Selected Save Print Export

Select All Deselect All Sort by: Accession Number ↓ Answers per Page [15] 1 2 3 4 5 6 7

Display:

1. **New Highly Active Heteroscorpionate-Containing Lutetium Catalysts for the Hydroamination of Aminoalkenes: Isolation and Structural Characterization of a Dipyrrolidinide-Lutetium Complex** Full Text

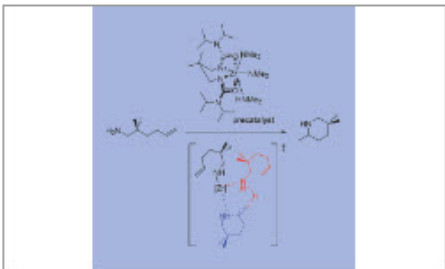
By Otero, Antonio; Lara-Sanchez, Agustin; Najera, Carmen; Fernandez-Baeza, Juan; Marquez-Segovia, Isabel; Castro-Osma, Jose Antonio; Martinez, Javier; Sanchez-Barba, Luis F.; Rodriguez, Ana M.
From *Organometallics* (2012), 31(6), 2244-2255. | Language: English, Database: CAPLUS

The reactions of the hybrid scorpionate/cyclopentadiene compds., as a mixt. of regioisomers, 1-[2,2-bis(3,5-dimethylpyrazol-1-yl)-1,1-diphenylethyl]-1,3-cyclopentadiene and 2-[2,2-bis(3,5-dimethylpyrazol-1-yl)-1,1-diphenylethyl]-1,3-cyclopentadiene (bpzcpH) and 1-[2,2-bis(3,5-dimethylpyrazol-1-yl)-1-tert-butylethyl]-1,3-cyclopentadiene and 2-[2,2-bis(3,5-dimethylpyrazol-1-yl)-1-tert-butylethyl]-1,3-cyclopentadiene (bpztcpH), with [Lu(CH₂SiMe₃)₃(THF)₂] proceed in very high yields to give the free solvent neutral heteroscorpionate dialkyl Lu complexes [Lu(CH₂SiMe₃)₂(bpzcp)] (1) and chiral [Lu(CH₂SiMe₃)₂(bpztcp)] (2). The structures in soln. of 1 and 2 were studied by VT NMR spectroscopy, and a fluxional behavior corresponding to an exchange between the alkyl groups was obsd. The Lu complex [Lu(CH₂SiMe₃)₂(bpztcp)(THF)] (3) was isolated as an enantiomerically enriched complex. Supramol. CH-n interactions between mol. in crystals of 3 were identified in its x-ray mol. anal., and they explain the formation of a conglomerate among mol. of 3. Complexes 1-3 are efficient catalysts for the **intramol. hydroamination of aminoalkenes**, giving TOF values of up to 475 h⁻¹ at 90° for 2,2-diphenyl-pent-4-enylamine (4) by using complex 3 as catalyst. Enantioselectivities up to 70% ee were achieved in the cyclization of the 1,2-disubstituted olefin 6 with the high enantiopurity complex 3. The **hydroamination** reactions show apparently zero-order rate dependence on substrate concn. and 1st-order rate dependence on catalyst concn. Addnl., bicyclization of 2-allyl-2-methylpent-4-enylamine (10) was achieved at 60 and 100°, giving *exo,exo*-2,4,6-trimethyl-1-azabicyclo[2.2.1]heptane (12). The protonolysis reaction of [Lu(CH₂SiMe₃)₂(bpztcp)] (2) with 2 equiv of 2,2-diphenyl-pent-4-enylamine (4) yielded a dipyrrolidinide Lu complex [Lu(NC₄H₅-2-Me-4,4-Ph₂)₂(bpztcp)] (13) as a mixt. of two diastereoisomers. The structures of the complexes were detd. by spectroscopic methods, and the x-ray crystal structures of 3 and 13 were also established.


2. **Intramolecular Aminoalkene Hydroamination Mediated by a Tethered Bis(ureate)zirconium Complex: Computational Perusal of Various Pathways for Aminoalkene Activation** Full Text

By Tobisch, Sven
From *Inorganic Chemistry* (Washington, DC, United States) (2012), 51(6), 3786-3795.
| Language: English, Database: CAPLUS


The present study comprehensively explores alternative mechanistic pathways for the **intramol. hydroamination** of the prototype 2,2-dimethyl-5-penten-1-amine **aminoalkene** (1) by bis(ureate)ZrIV(NMe₂)₂(HNMe₂) (2), which proceeds through a ZrIV(NHR)₂ intermediate using d. functional theory (DFT) calcns. The classical stepwise σ-insertive mechanism that includes insertion of the C=C double bond into the Zr-N amido σ bond followed by Zr-C alkyl-bond aminolysis has been compared with a single-step pathway for amidoalkene →



4. Clicking the Quick View icon  allows you to preview reference details without leaving your answer set.

Quick View 

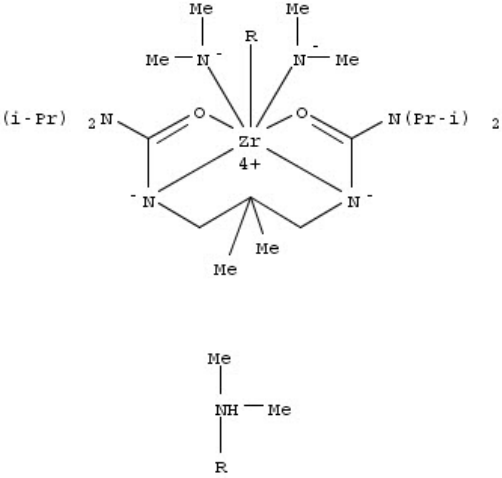
Intramolecular Aminoalkene Hydroamination Mediated by a Tethered Bis(ureate)zirconium Complex: Computational Perusal of Various Pathways for Aminoalkene

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The present study comprehensively explores alternative mechanistic pathways for the intramol. hydroamination of the prototype 2,2-dimethyl-5-penten-1-amine aminoalkene (1) by bis(ureate)ZrIV(NMe₂)₂(HMMe₂) (2), which proceeds through a ZrIV(NHR)₂ intermediate using d. functional theory (DFT) calcns. The classical stepwise σ -insertive mechanism that includes insertion of the C=C double bond into the Zr-N amido σ bond followed by Zr-C alkyl-bond aminolysis has been compared with a single-step pathway for amidoalkene \rightarrow cycloamine conversion through a concerted amino proton transfer assocd. with N-C ring closure. Noncompetitive kinetics for reversible σ -insertive cyclization, together with the incompatibility of a turnover-limiting insertion step with obsd. pronounced primary kinetic isotope effects (KIEs), strongly militates against the operation of a σ -insertive mechanism. A noninsertive pathway evolving through an ordered six-center transition-state structure describing N-C bond formation at an axial Zr-N amido σ bond triggered by concurrent proton transfer from an equatorially bound substrate mol. onto the adjacent olefin-carbon center is found to prevail energetically. The proton-triggered noninsertive cyclization commencing from a catalytically relevant ZrIV(NHR)₂(NH₂R) substrate adduct is strongly downhill, followed by product expulsion via dissociative amine exchange. The assessed effective barrier compares reasonably well with the previously detd. Eyring parameters, and the computationally estd. primary KIEs

Reference Images **Substance Images**

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Additional resources

To learn more about working with reference answer sets, refer to

- SciFinder online help files
- How To Guides for:
 - Analyze Reference Answer Sets
 - Refine Reference Answer Sets
 - Access Full Text
 - Identify Related Citations
 - Print, Save, and Export
- Self-directed learning options in the [Learning Solutions](#) resource center



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