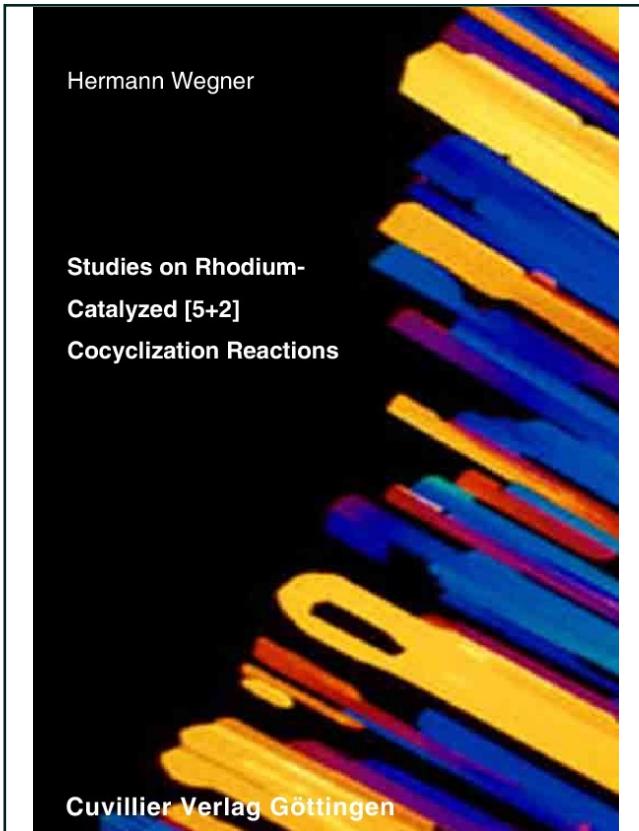




Hermann Wegner (Autor)

Studies on Rhodium-Catalyzed (5+2) Cocyclization Reactions



<https://cuvillier.de/de/shop/publications/2867>

Copyright:

Cuvillier Verlag, Inhaberin Annette Jentzsch-Cuvillier, Nonnenstieg 8, 37075 Göttingen,
Germany

Telefon: +49 (0)551 54724-0, E-Mail: info@cuvillier.de, Website: <https://cuvillier.de>

Contents

A. Introduction and Background	1
B. Main Part	15
1. Intramolecular Cocyclization of Vinylbicyclopropyls	15
1.1. The 1st-generation-precursor	15
1.2. The 2nd-generation-precursor	29
1.3. The 3rd-generation-precursor	36
1.4. The 4th-generation-precursor	50
1.5. The 5th-generation-precursor	55
1.6. Summary	57
2. Allenes in Intermolecular Cocyclizations with Vinylcyclopropanes	59
2.1. Allenynes	60
2.2. Other allenes	65
2.3. Nitriles as additives	70
2.4. Alkenes	72
2.5. [5 + 2 + 1] Cocyclization of allenynes	78
2.6. Mechanistic studies	81
2.7. Summary	86
C. Experimental	91
1. General	91
1.1. Reagents and Solvents	91
1.2. Chromatography	92
1.3. Physical and Spectroscopic Measurements	92
1.4. Preparation of known compounds	93
2. General procedures	94
3. Exploration of the Rh-catalyzed [5+2] cycloaddition with vinylbicyclo- propyls	96

3.1.	1st-Generation precursors	96
3.2.	2nd-Generation precursors	107
3.3.	3rd-Generation precursors	115
4.	[5 + 2] Cycloaddition of Vinylcyclopropanes with Allenes	140
4.1.	Starting materials	140
4.2.	Cycloadducts	144
D. Conclusion and Outlook		161
E. Bibliography		171
F. Spektra		181
1.	^1H -NMR-Spectra	182
2.	^{13}C -NMR-Spectra	189