

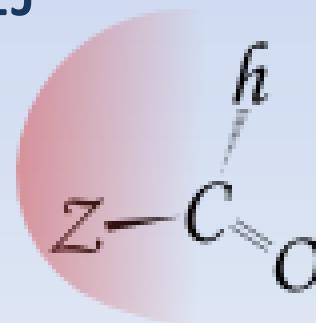


SYNTEZA ASYMETRYCZNA

Dr inż. Tomasz Rowicki

ZAKŁAD CHEMII ORGANICZNEJ

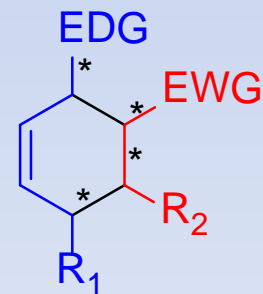
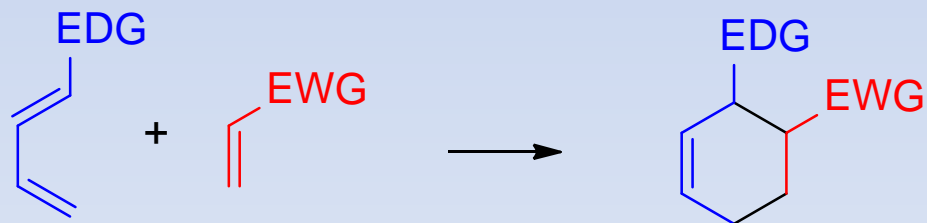
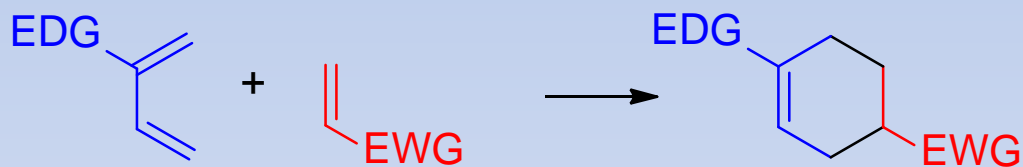
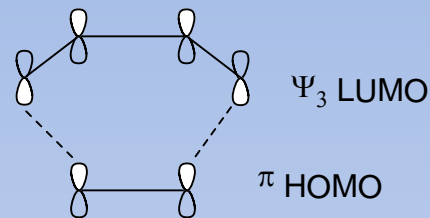
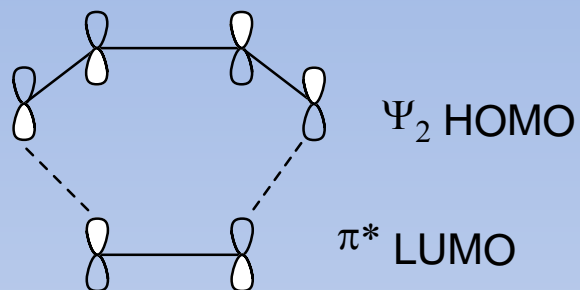
Konsultacje: pon. 14¹⁵-16⁰⁰, pok. 135, G.Ch.



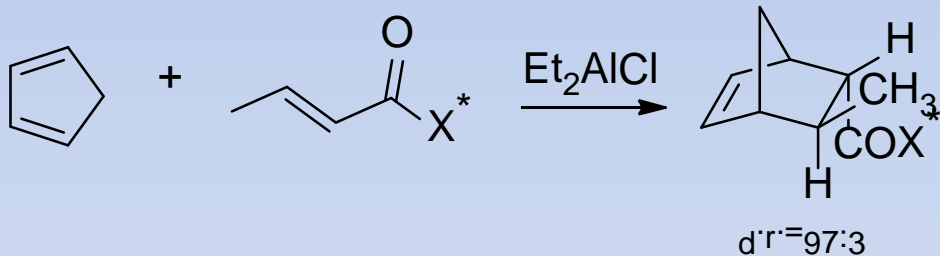
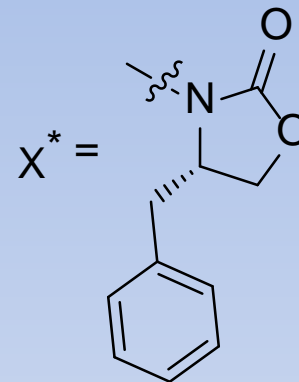
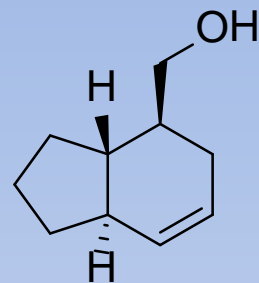
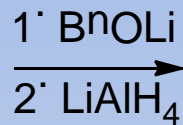
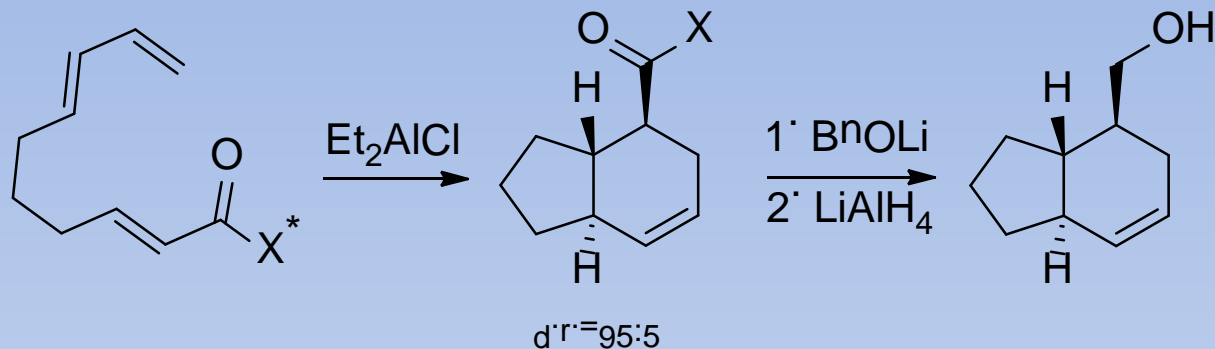
Zagadnienia na dziś

1. Reakcja Dielsa-Aldera
2. Reakcja metatezy
3. Reakcja Friedla-Craftsa

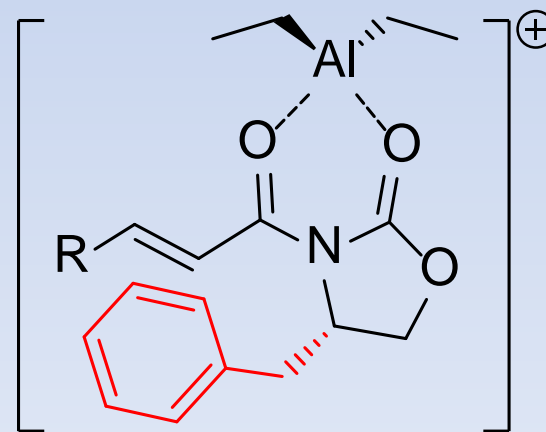
Reakcja Dielsa-Aldera



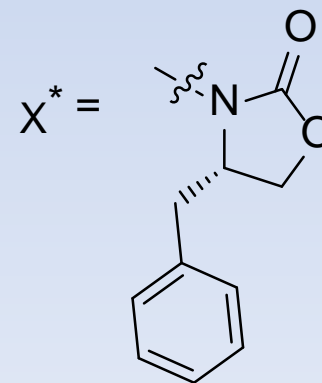
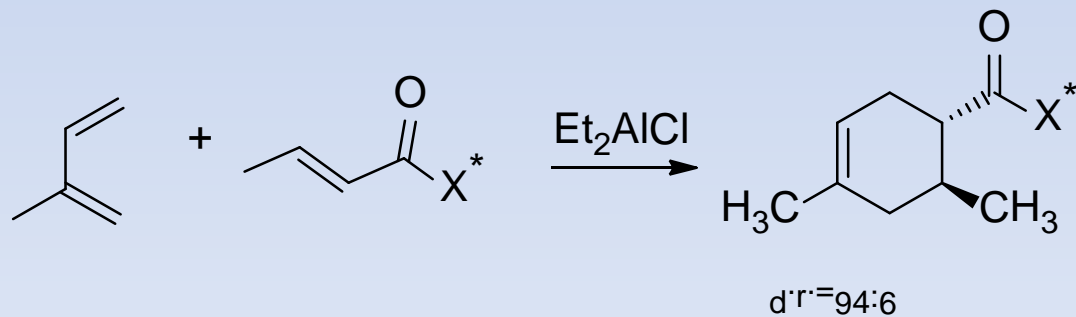
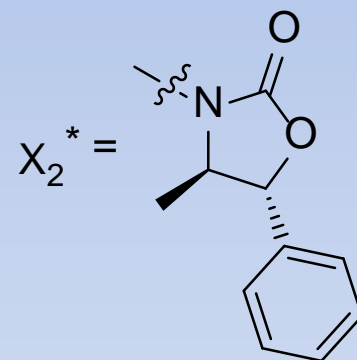
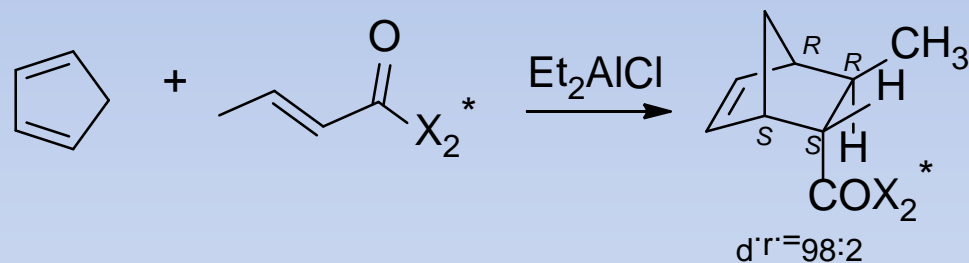
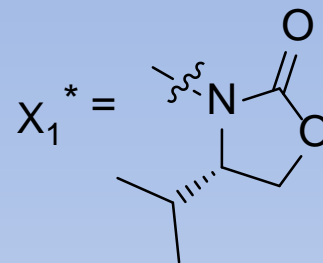
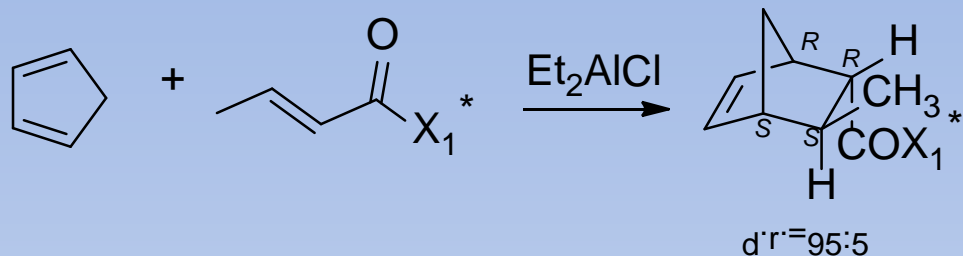
Reakcja Dielsa-Aldera



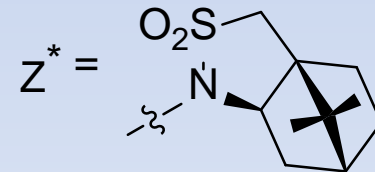
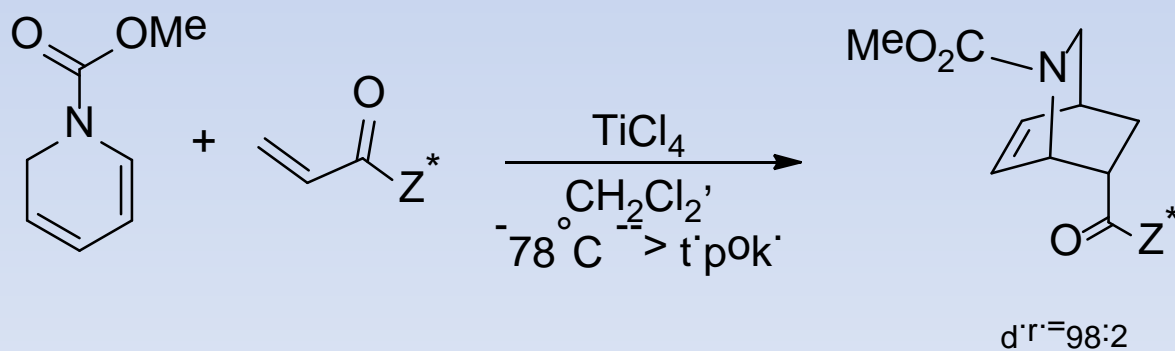
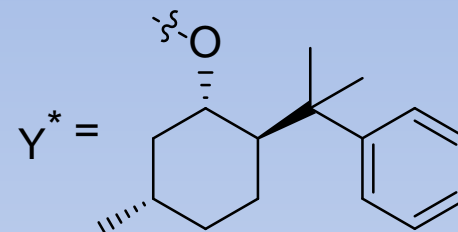
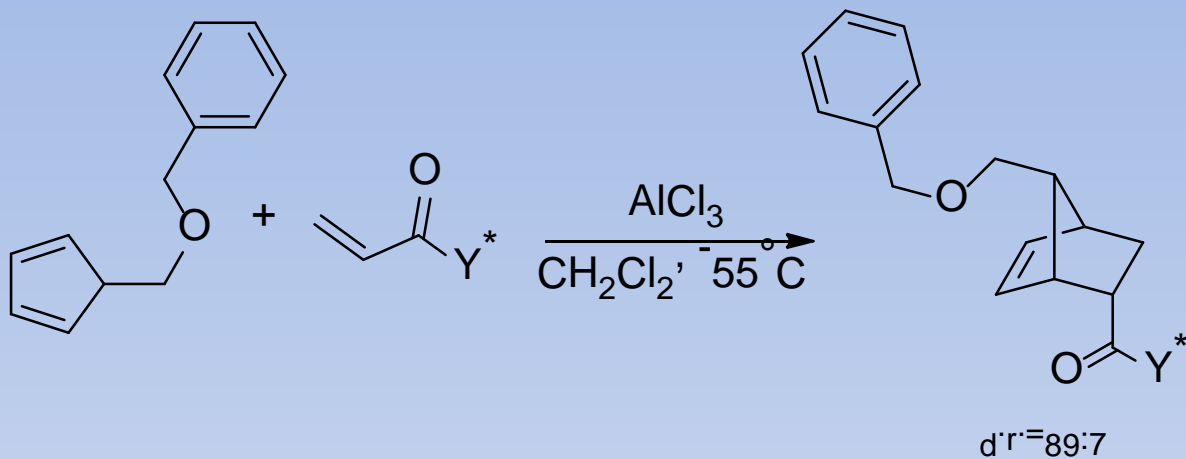
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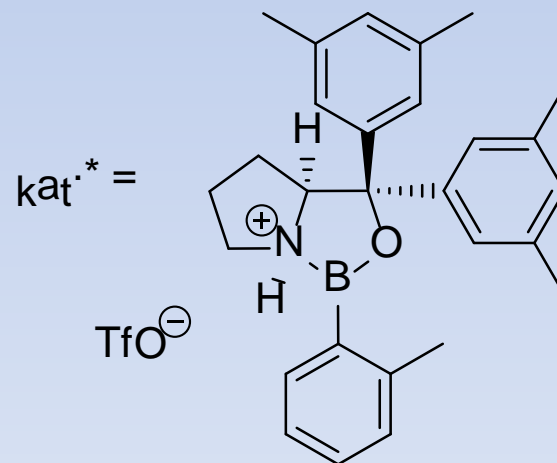
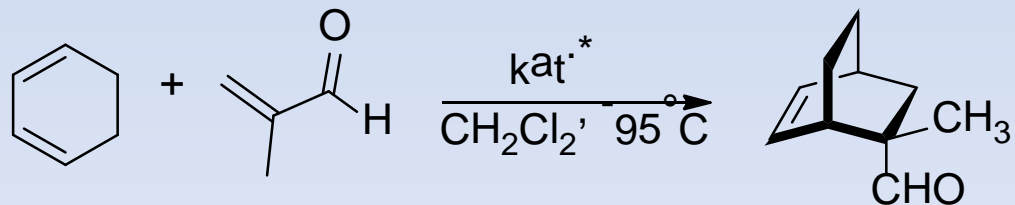
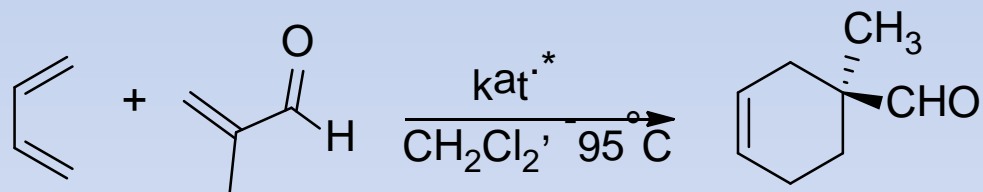
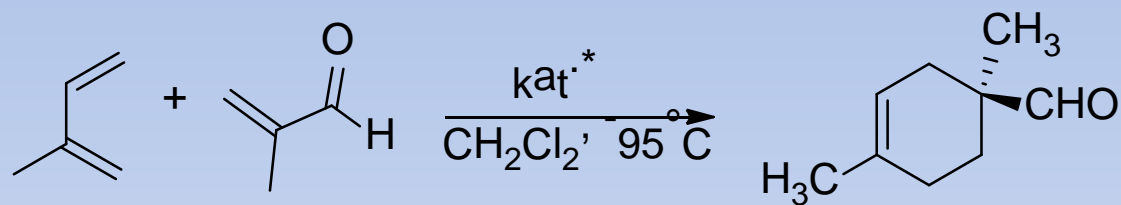
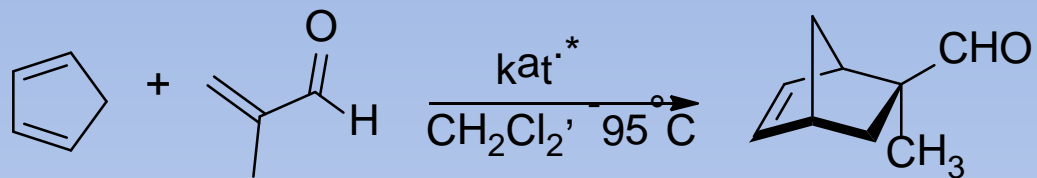
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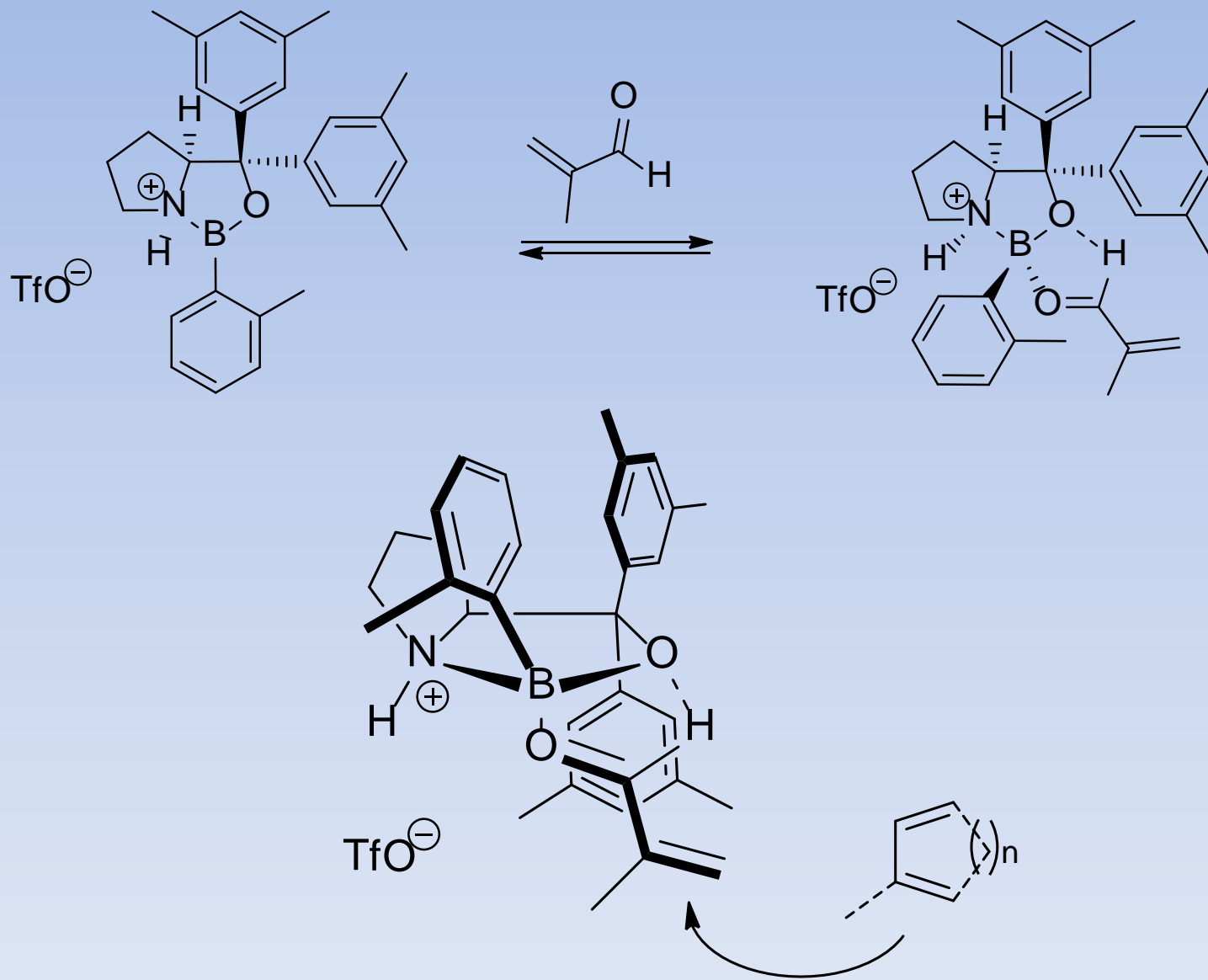
Reakcja Dielsa-Aldera



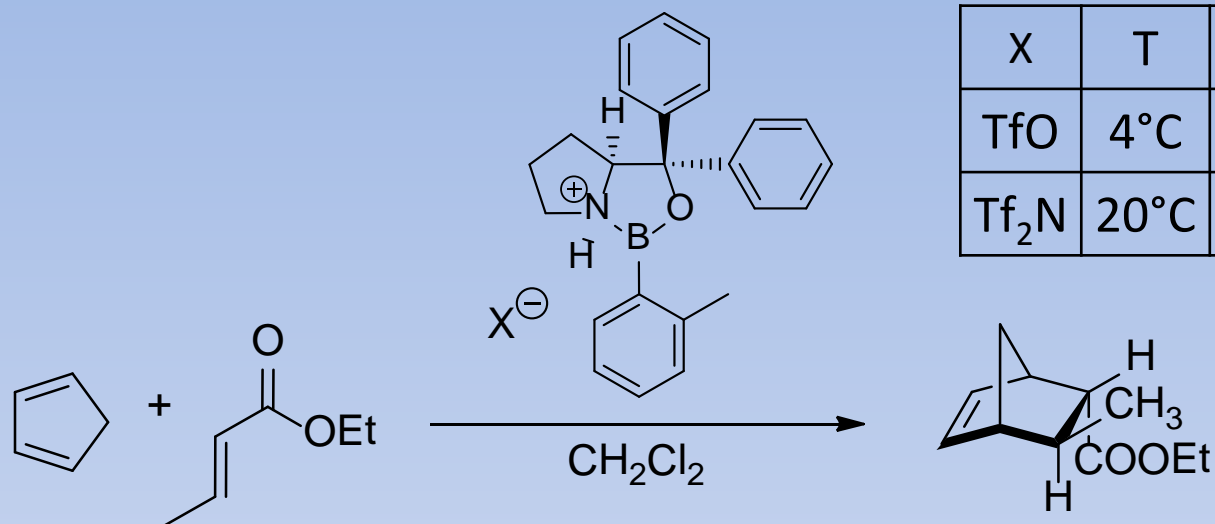
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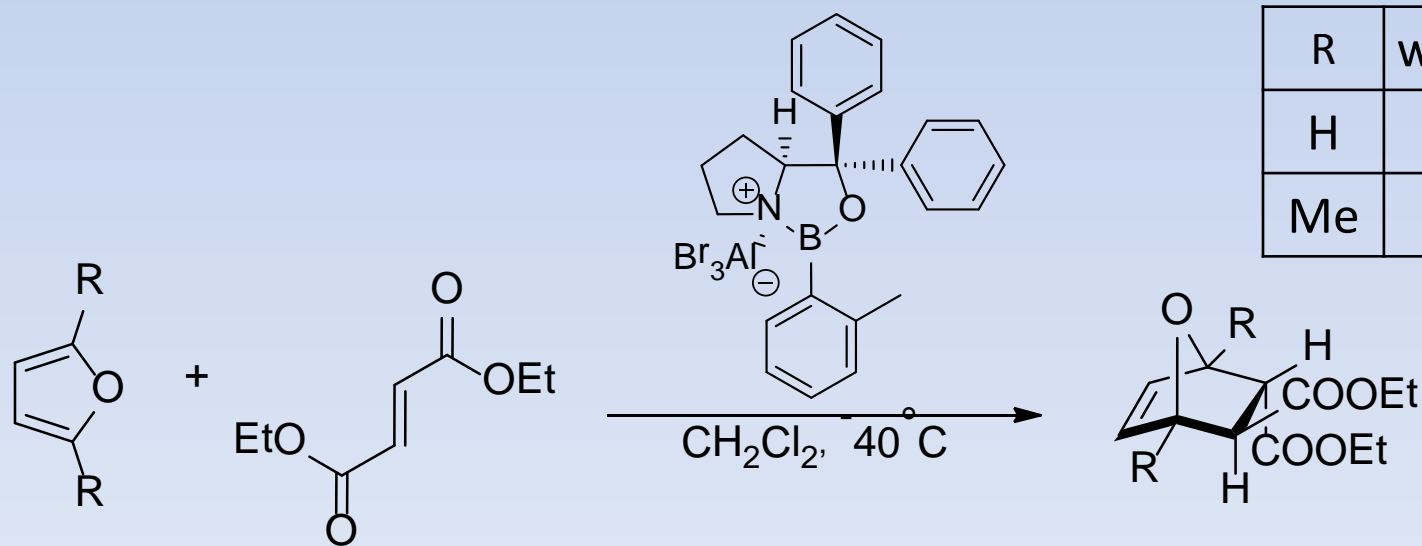
Reakcja Dielsa-Aldera



Reakcja Dielsa-Aldera

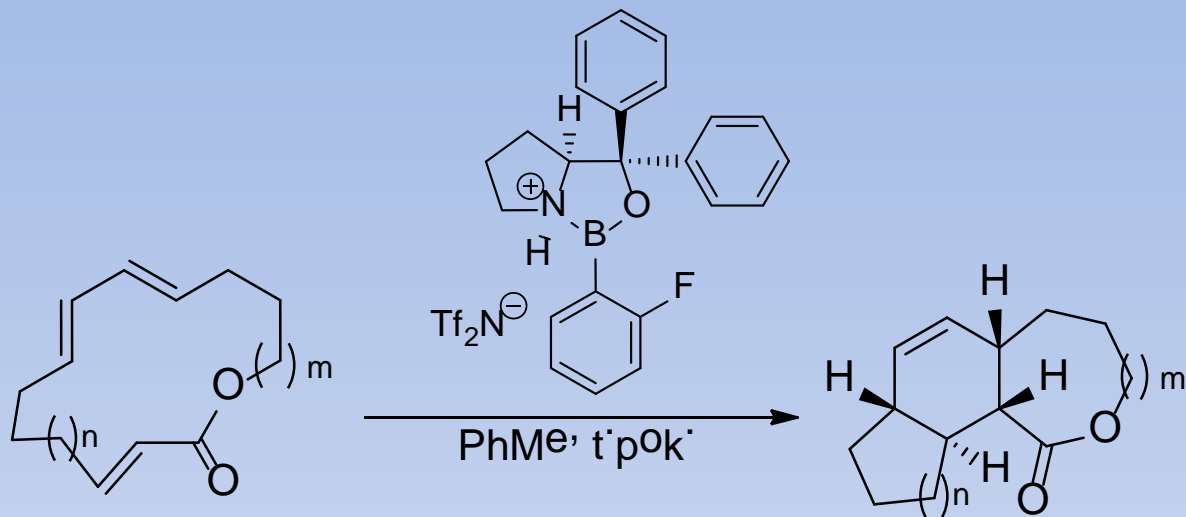


X	T	t	endo : exo	e.e. (%)
TfO	4°C	72h	91: 9	46
Tf ₂ N	20°C	16h	89: 11	94

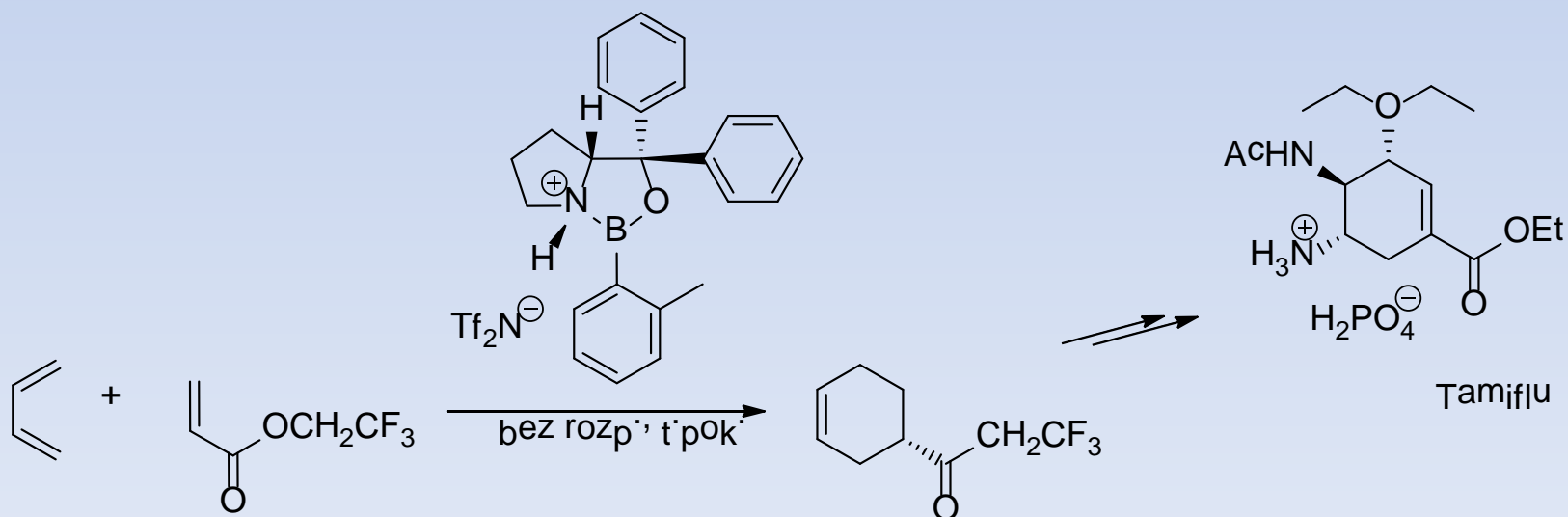


R	wyd. (%)	e.e. (%)
H	71	99
Me	72	91

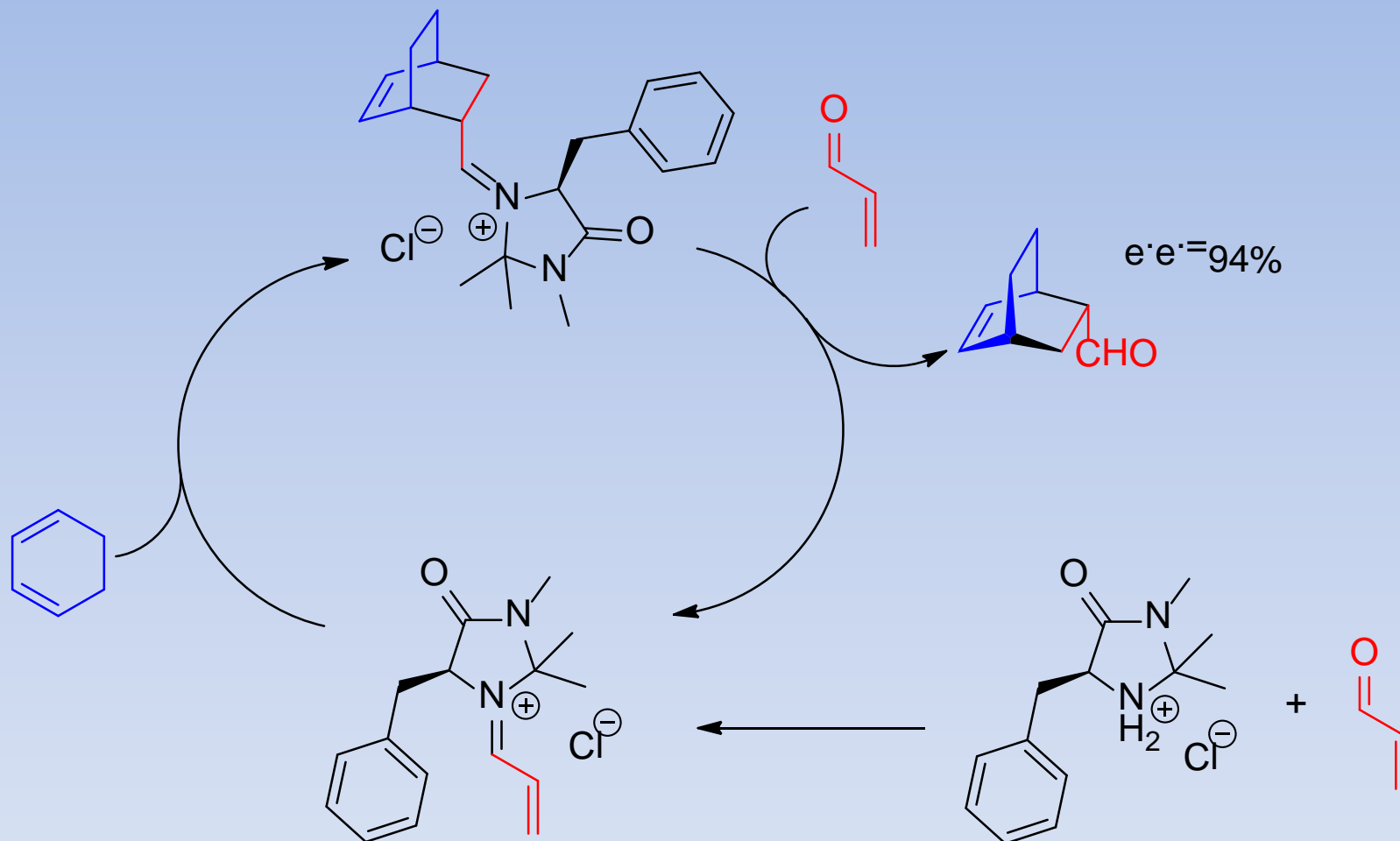
Reakcja Dielsa-Aldera



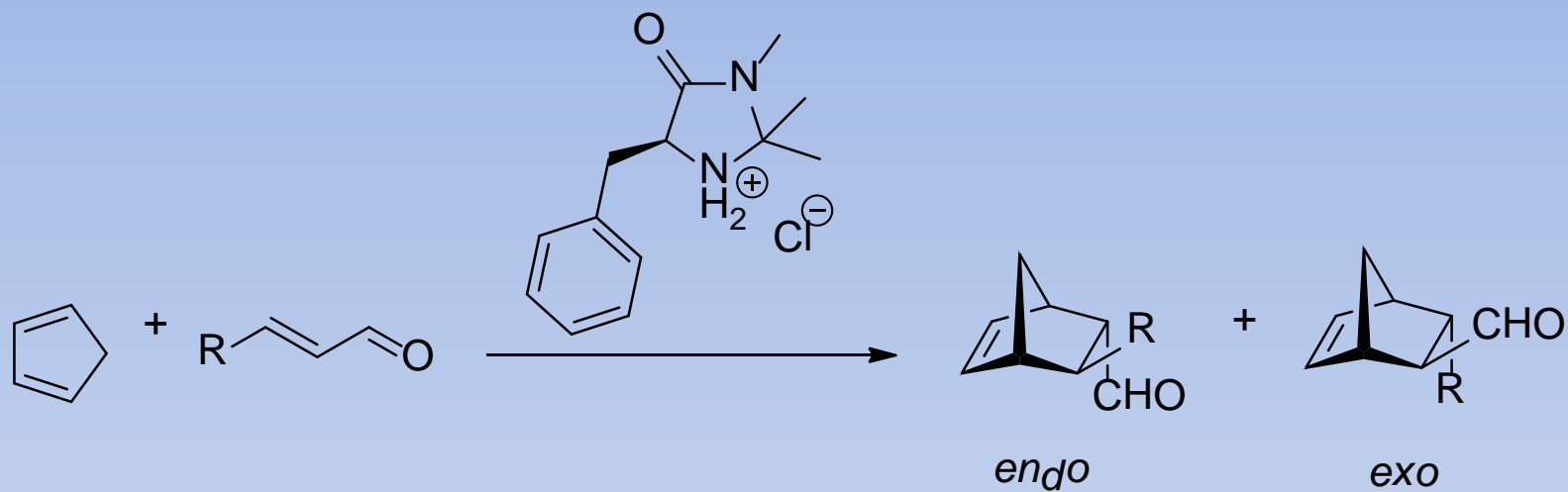
m	n	d.r.	e.e. (%)
2	1	>19:1	90
1	1	>19:1	92
1	2	5,6:1	90



Reakcja Dielsa-Aldera

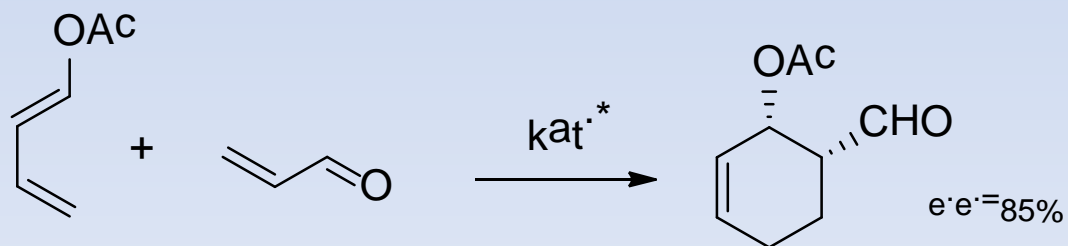
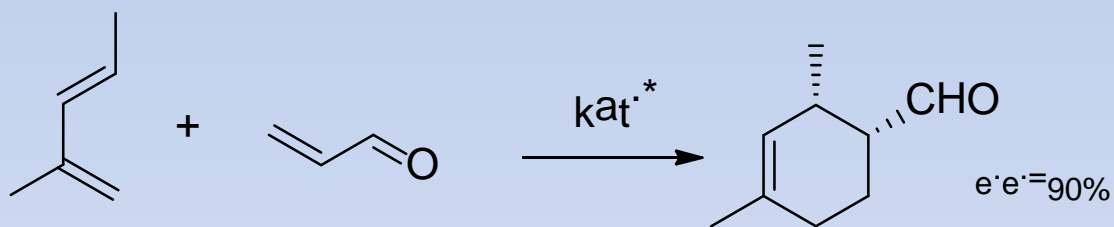
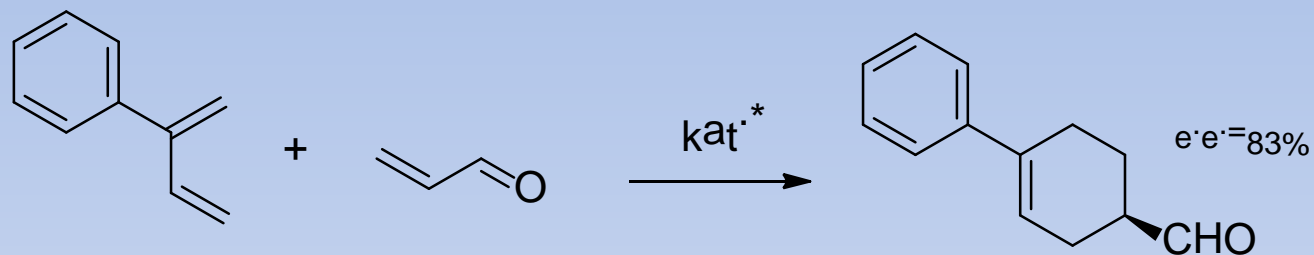
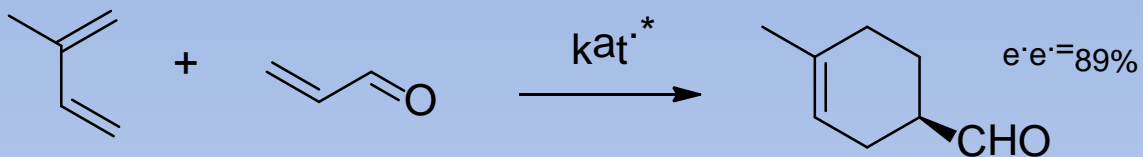


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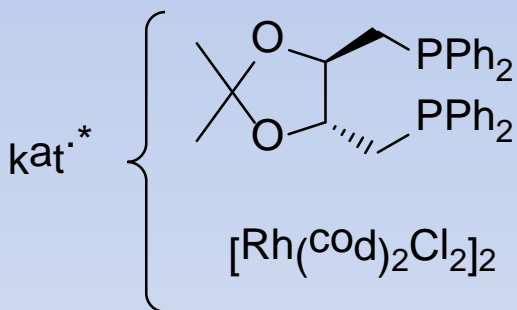
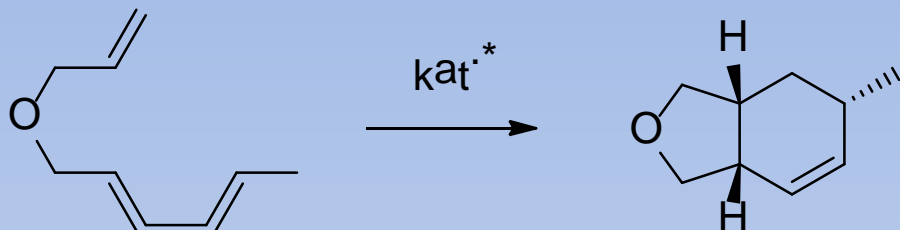


R	<i>endo</i> e.e. (%)	<i>exo</i> e.e. (%)
Me	90	86
Pr	90	86
iPr	93	84
Ph	93	93
2-furyl	93	91

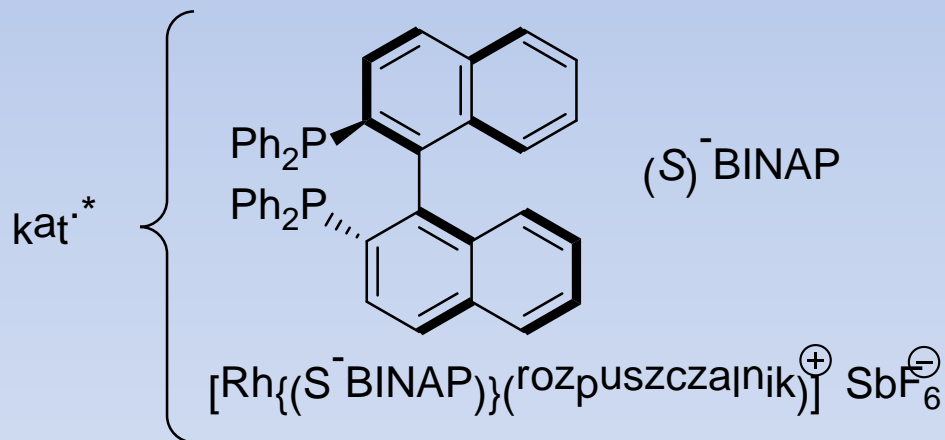
Reakcja Dielsa-Aldera



Reakcja Dielsa-Aldera

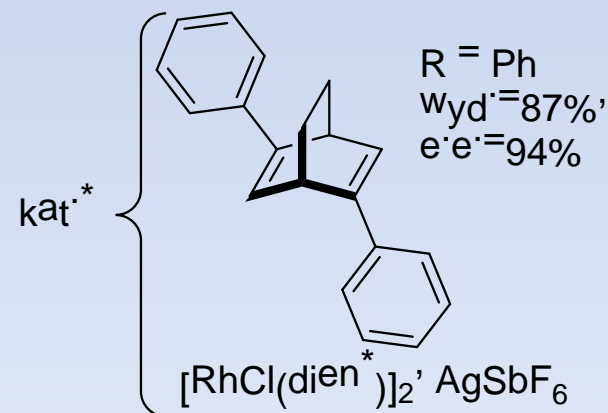
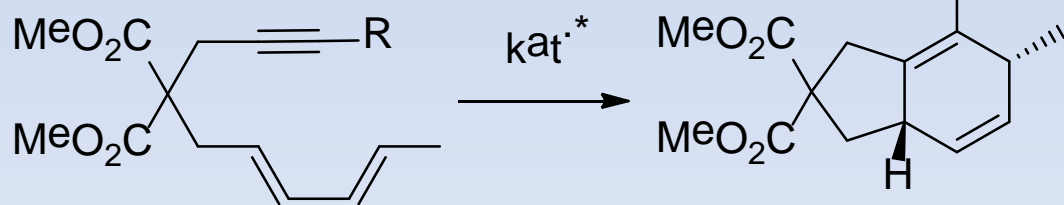
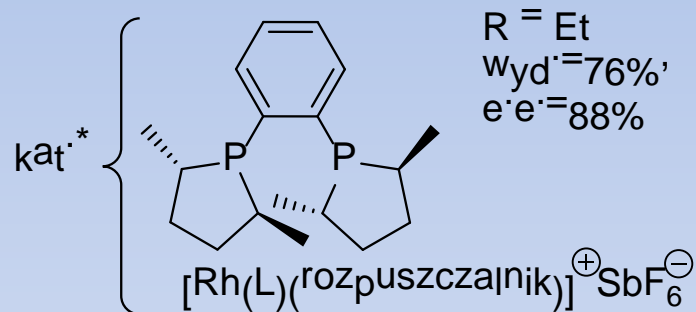
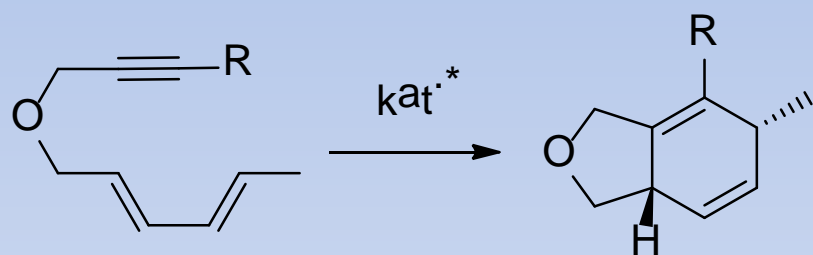
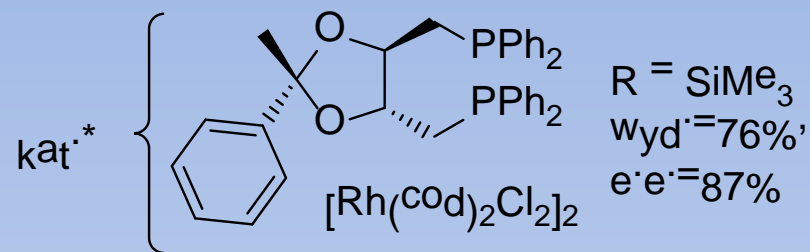
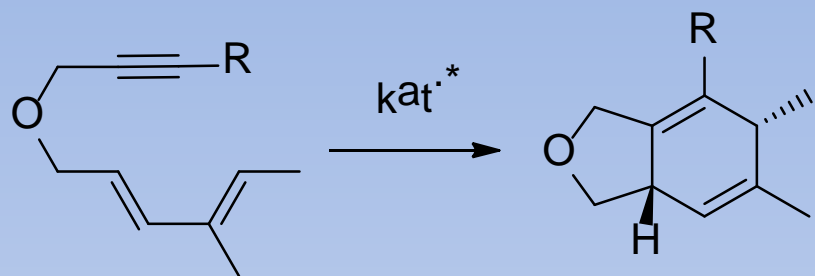


Wyd. = 84%
e.e. = 73%

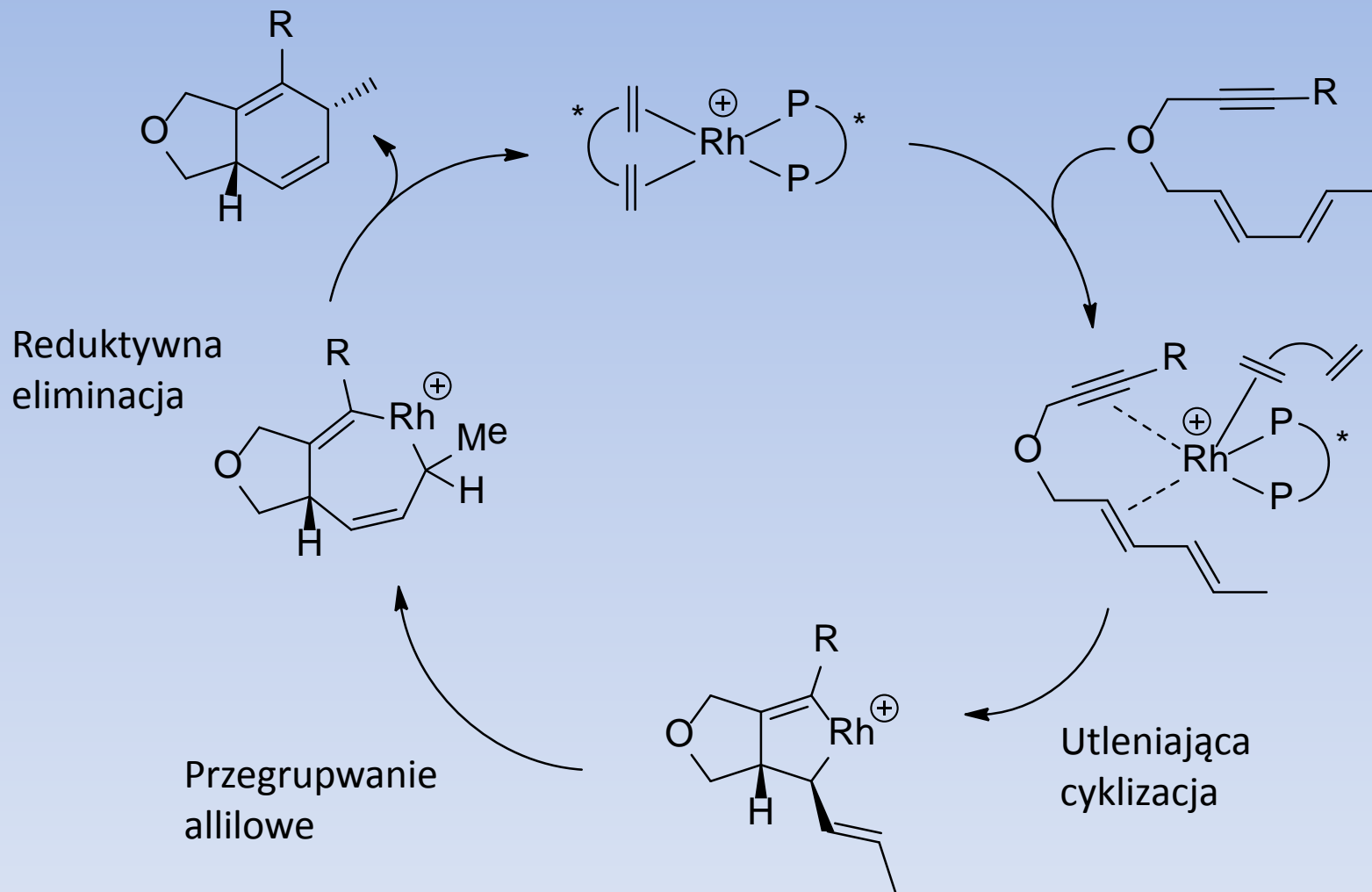


Wyd. = 64%
e.e. > 98%

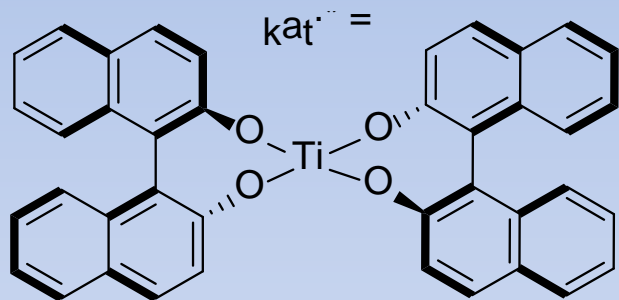
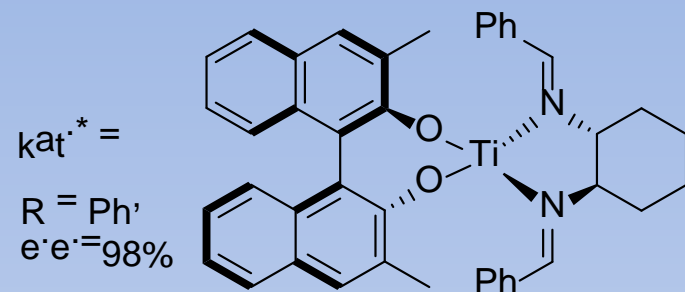
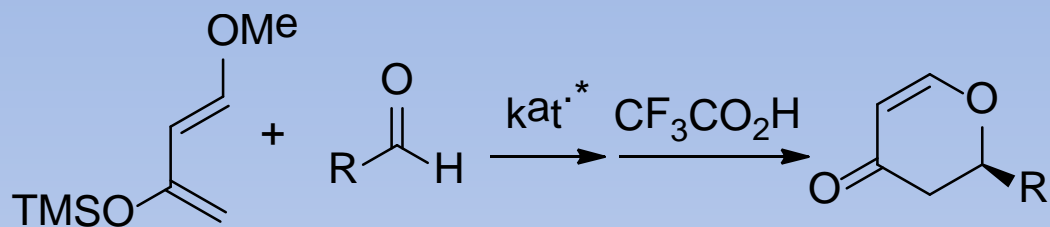
Reakcja Dielsa-Aldera



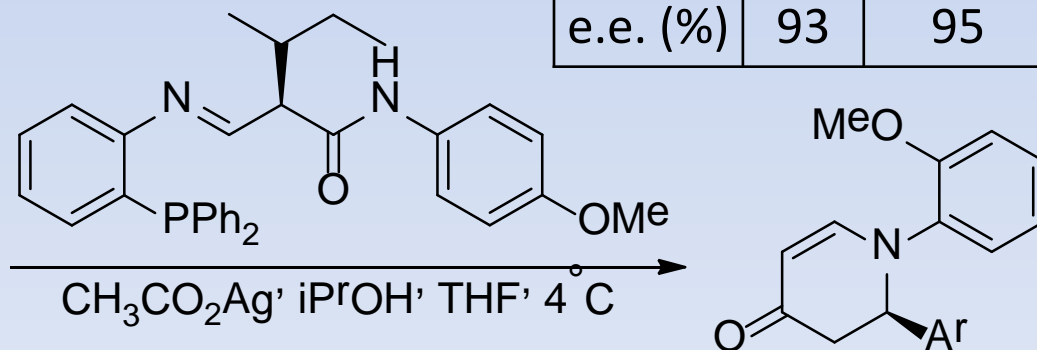
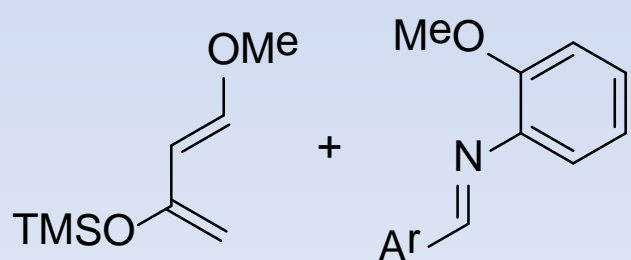
Reakcja Dielsa-Aldera



Reakcja hetero Dielsa-Aldera

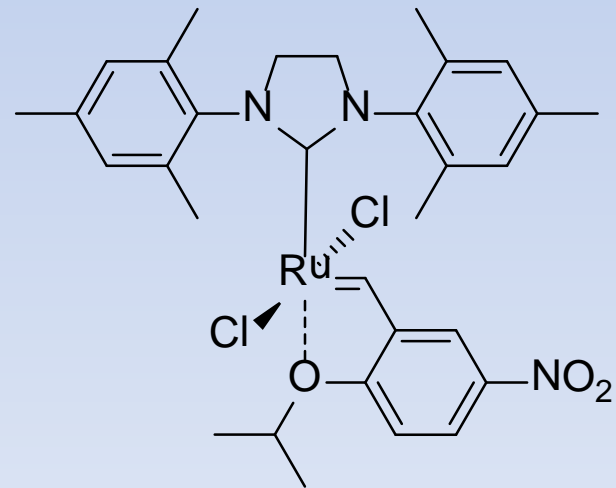
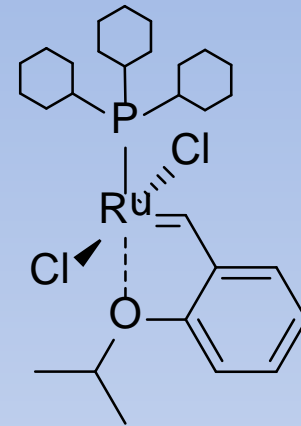
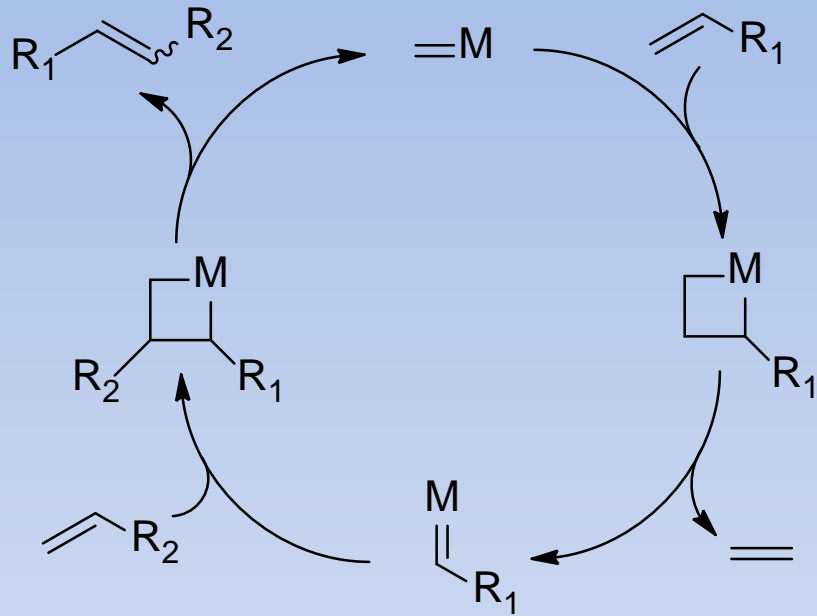


R	Ph	p-NO ₂ -C ₆ H ₄ -	2-furyl
e.e. (%)	99,3	97,3	99,2

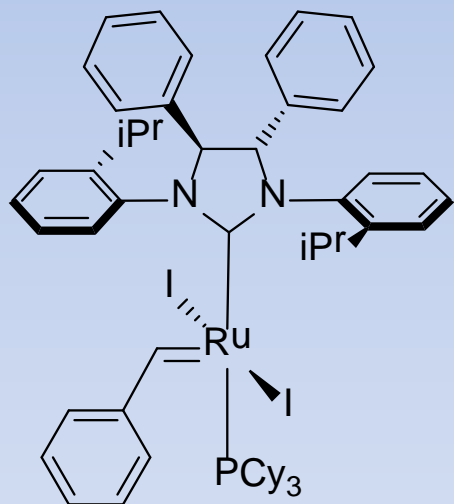
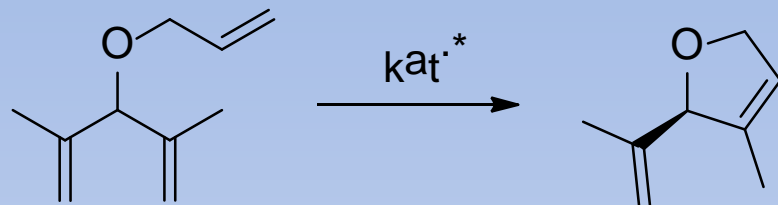


Ar	Ph	2-naftyl
e.e. (%)	93	95

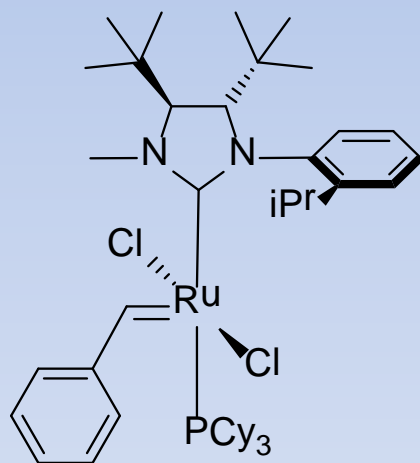
Reakcja metatezy



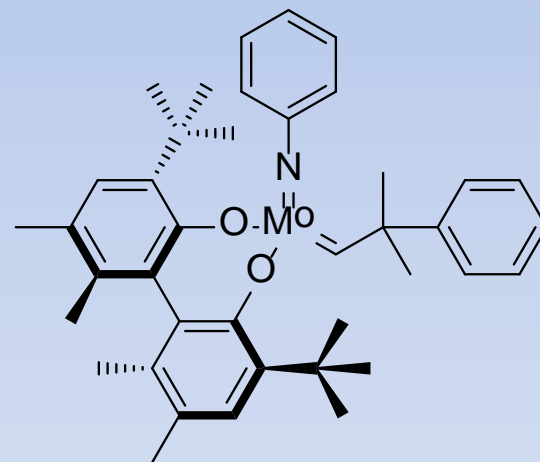
Reakcja metatezy



wyd. 64%
e.e. 90%

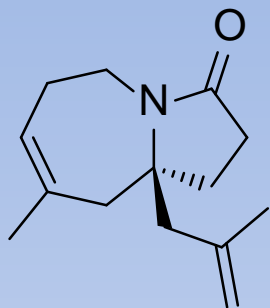


wyd. 81%
e.e. 82%



wyd. 93%
e.e. 98%

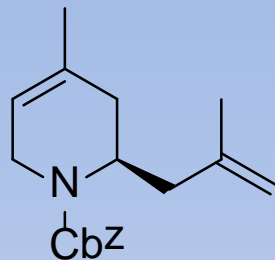
Reakcja metatezy



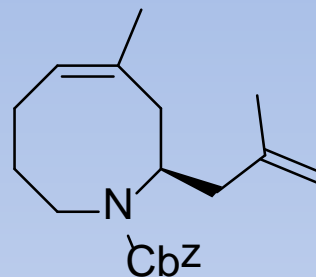
Wyd. = 84%
e.e. = 85%



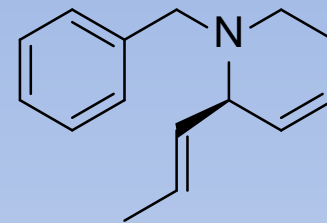
Wyd. = 92%
e.e. = 88%



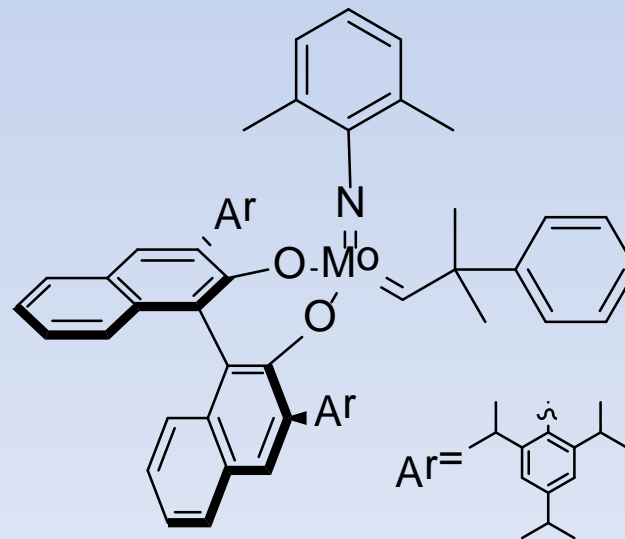
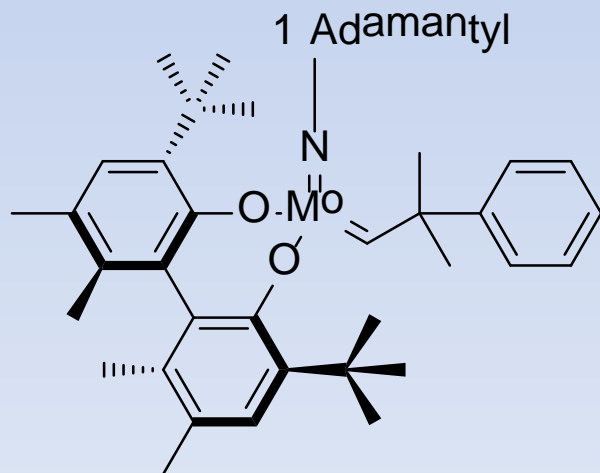
Wyd. = 98%
e.e. = 95%



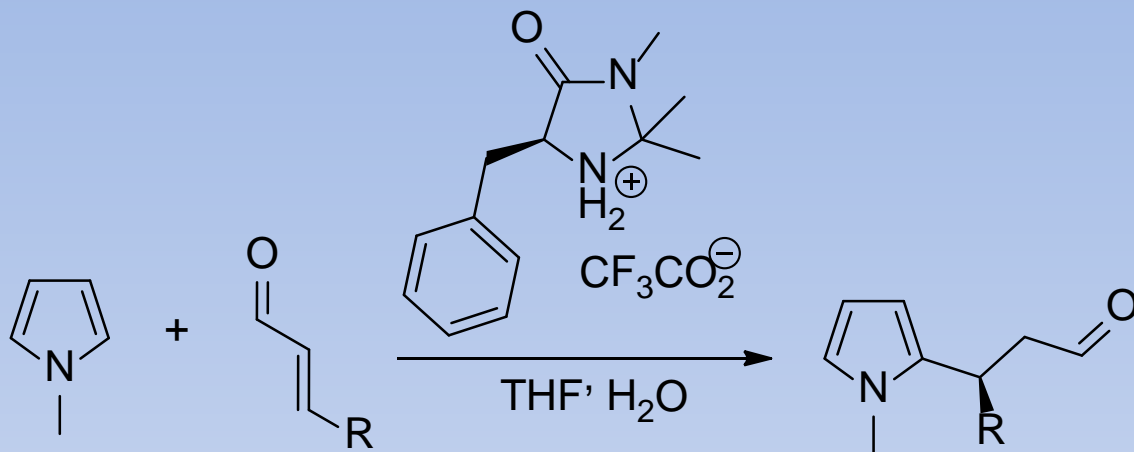
Wyd. = 94%
e.e. = 97%



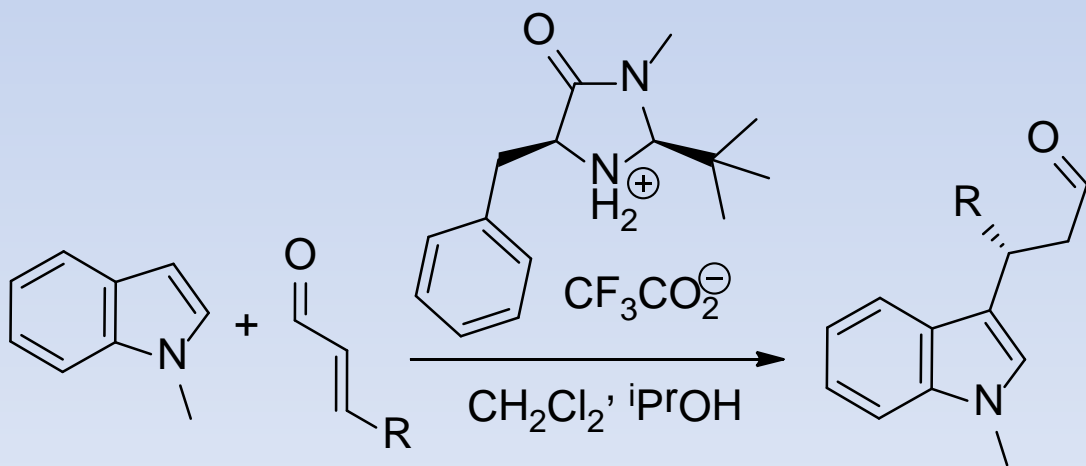
Wyd. = 83%
e.e. = 87%



Reakcja Friedel-Craftsa



R	T (°C)	e.e. (%)
Me	-60	91
iPr	-50	91
Ph	-30	93
4-MeO-C ₆ H ₄	-30	91
BnOCH ₂	-60	87
COOMe	-50	90



R	T (°C)	e.e. (%)
Me	-83	92
iPr	-50	93
Ph	-55	90
BzOCH ₂	-83	96
COOMe	-83	91

Literatura do dzisiejszych zagadnień

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SYNTEZA ASYMETRYCZNA

Dziękuję za uwagę

Konsultacje: pon. 14¹⁵-16⁰⁰, pok. 135, G.Ch.

