

Transition Metal Acyclic Carbene Complexes: Building Blocks for Luminescent, Stimuli-Responsive, Bioactive Materials and Catalysts

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Electronic Supplementary Information

Table. S2 Yields and enantiomeric excess of cyclization reactions catalyzed by various Au(I) complexes.

Catalyst	% Yield	% ee
Au(PPh ₃)(NTf ₂)	82 ^[3]	0 ^[3]
Catalyst	% Yield	% ee
	12 ^[4]	8 ^[4]
	68 ^[4]	84 ^[4]
R = C ₆ H ₃ (CF ₃) ₂ -3,5		
	70 ^[4]	>99 ^[4]
R = C ₆ H ₃ (CF ₃) ₂ -3,5		

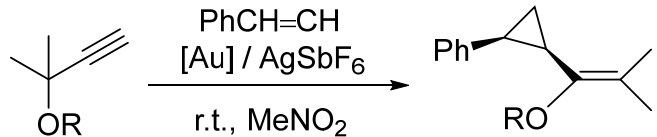
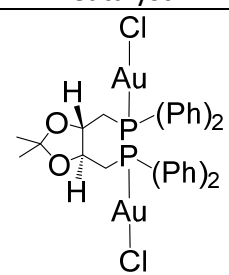
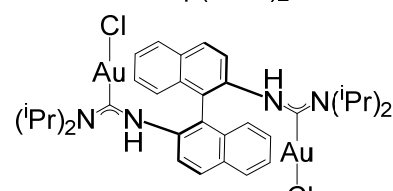
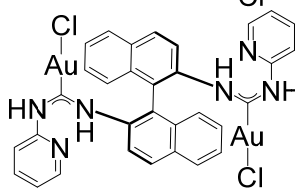
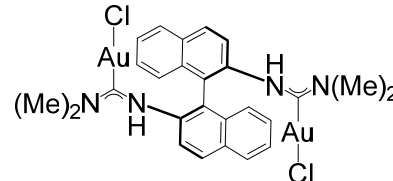
			
Catalyst	R	% Yield	% ee
 diop(AuCl) ₂	Ac	67 ^[5]	0 ^[5]
	Piv	70 ^[6]	10 ^[6]
	Piv	75 ^[6]	20 ^[6]
	Piv	72 ^[6]	24 ^[6]

Table S3 Yields and enantiomeric excess of addition reactions catalyzed by various Au(I) complexes.

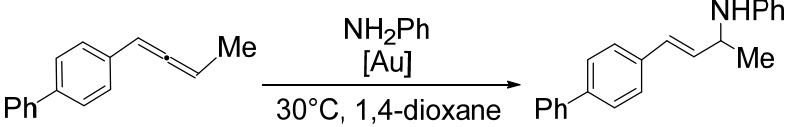
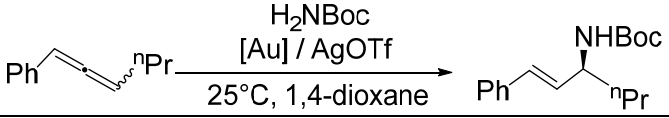
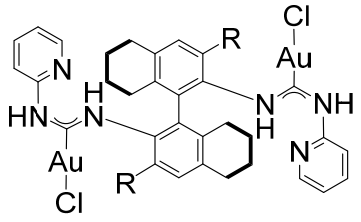
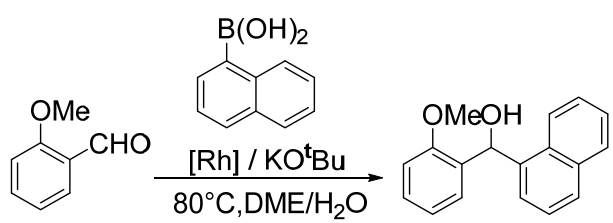
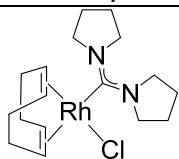
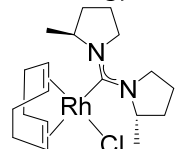
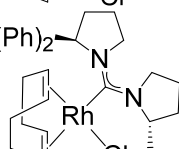
		
Catalyst	% Yield	% ee
Au(IPr)(OTf)	86 ^[7]	4 ^[7]
		
Catalyst	% Yield	% ee
 R = C ₆ H ₃ (OMe) ₂ -3,5	66 ^[8]	89 ^[8]

Table S4 Yields and enantiomeric excess of addition reactions catalyzed by various Rh(I) complexes.

		
Catalyst	% Yield	% <i>ee</i>
	96 ^[9]	0 ^[9]
	71 ^[9]	2 ^[9]
	75 ^[9]	12 ^[9]
		

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