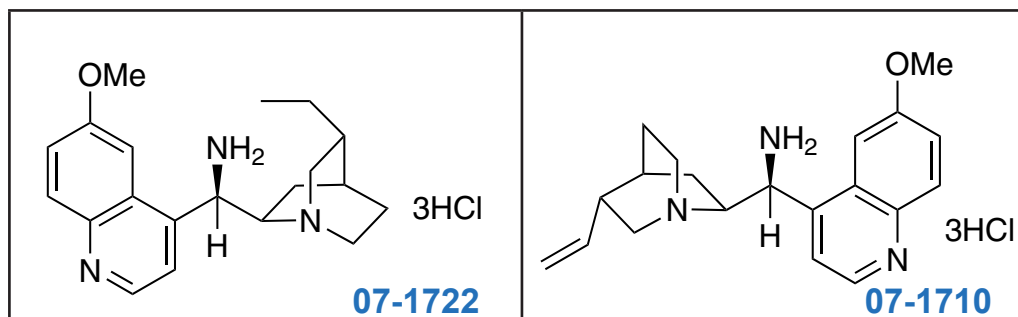


Cinchona Alkaloid-Derived Organocatalyst Kit

(enantiopure primary amines) for Iminium-Enamine Activation



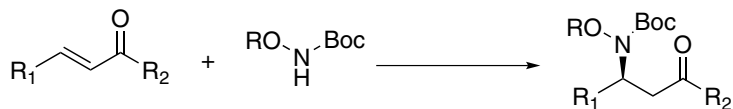
In principle, these compounds may be used with any enolizable molecule, allowing build up of molecular complexity through iminium-enamine cascade processes.



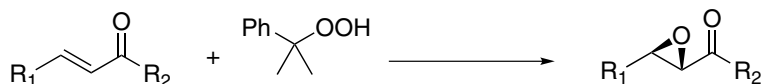
96-1575	Cinchona Alkaloid-Derived Organocatalyst Kit - (enantiopure primary amines) for Iminium-Enamine Activation	1 kit
Components also available for individual sale. Contains the following:		
07-1710	(8α, 9S)-6'-Methoxycinchonan-9-amine trihydrochloride, min. 90% (1231763-32-8)	100mg
07-1722	(9R)-10,11-Dihydro-6'-methoxycinchonan-9-amine trihydrochloride, min. 90% (931098-92-9)	100mg
07-1722	(9R)-10,11-Dihydro-6'-methoxycinchonan-9-amine trihydrochloride, min. 90% (931098-92-9) C ₂₀ H ₂₇ N ₃ O·3HCl; FW: 434.83; white to off-white pwdr. (store cold)	100mg 500mg

Technical Notes:

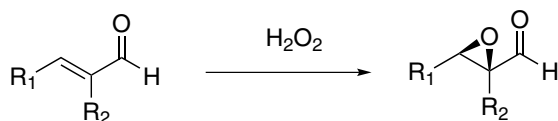
1. Aza-Michael reactions on α,β-unsaturated ketones.
2. Epoxidation of α,β-unsaturated ketones.
3. Epoxidation of α,β-unsaturated aldehydes.
4. Nitrocyclopropanation of α,β-unsaturated ketones.
5. Diels-Alder reaction.
6. Intramolecular aldolization of diketones.
7. Friedel-Crafts alkylation of indoles with α,β-unsaturated ketones.
8. Friedel-Crafts/amination cascade reactions with α-substituted α,β-unsaturated aldehydes.
9. Aziridination of acyclic α,β-unsaturated ketones.
10. Aziridination of cyclic α,β-unsaturated ketones.
11. Double Michael cascade process.
12. α-fluorination of cyclic ketones.



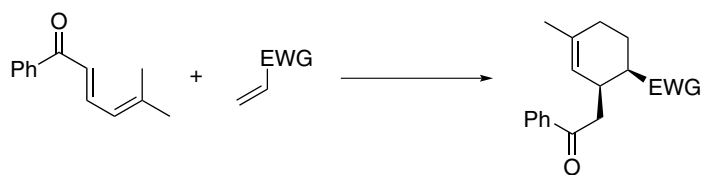
Tech. Note (1)
Ref. (1)



Tech. Note (2)
Ref. (2)



Tech. Note (3)
Ref. (3)



Tech. Note (4)
Ref. (4)



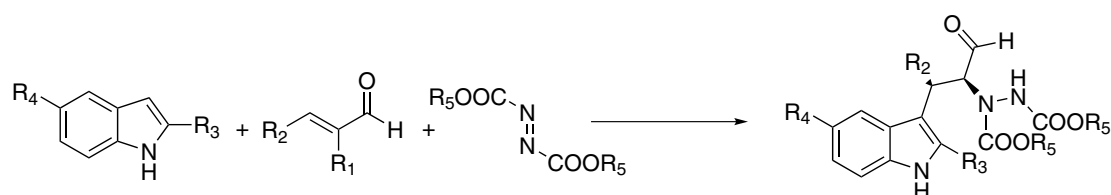
Tech. Note (5)
Ref. (5)



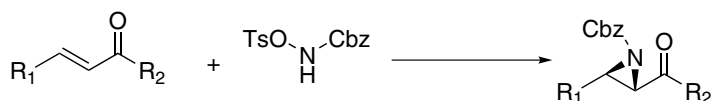
Tech. Note (6)
Ref. (6)



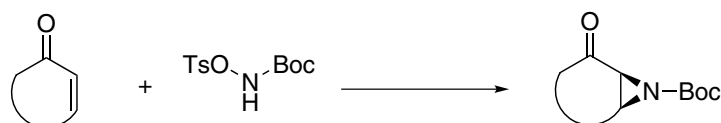
Tech. Note (7)
Ref. (7)



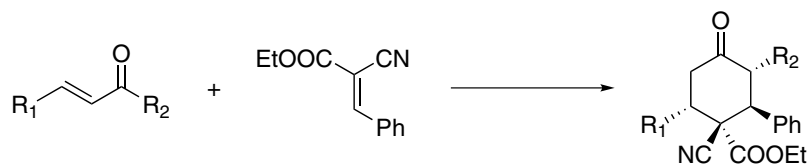
Tech. Note (8)
Ref. (8)



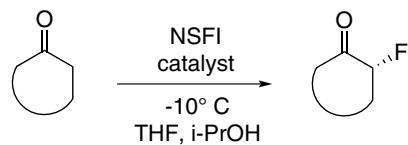
Tech. Note (9)
Ref. (9)



Tech. Note (10)
Ref. (10)



Tech. Note (11)
Ref. (11)



Tech. Note (12)
Ref. (12)

References:

1. *Angew. Chem. Int. Ed.*, **2008**, 47, 7710
2. *J. Am. Chem. Soc.*, **2008**, 130, 8134
3. *J. Am. Chem. Soc.*, **2010**, 132, 10227
4. *Chem. Eur. J.*, **2009**, 15, 972
5. *Angew. Chem. Int. Ed.*, **2012**, 51, 4401
6. *Angew. Chem. Int. Ed.*, **2008**, 47, 7656
7. *Org. Lett.*, **2007**, 9, 1403
8. *Chem. Int. Ed.*, **2009**, 48, 7892
9. *Angew. Chem. Int. Ed.*, **2008**, 47, 8703
10. *Chem. Asian J.*, **2010**, 5, 1652
11. *Angew. Chem. Int. Ed.*, **2009**, 48, 7196
12. *J. Am. Chem. Soc.*, **2011**, 133, 1738

07-1710 (8 α , 9S)-6'-Methoxycinchonan-9-amine trihydrochloride, min. 90% (1231763-32-8)
 $C_{20}H_{25}N_3O \cdot 3HCl$; FW: 432.81; pale yellow powdr.
(store cold)

100mg
500mg

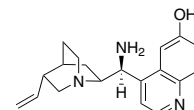
Technical Notes:

1. See 07-1722

Also available but not included in this kit:

07-1712 (8 α , 9S)-(+)-9-Amino-cinchonan-6'-ol, min. 90% (960050-59-3)
 $C_{19}H_{23}N_3O$; FW: 309.41; off-white to pale brown powdr.
(store cold)

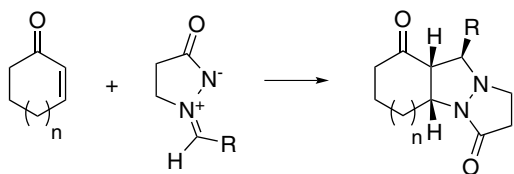
50mg
250mg



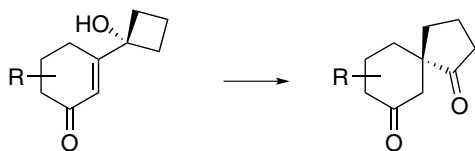
These amino-cinchonnane compounds behave as pseudoenantiomers, generally granting access to both enantiomers of a given transformation.

Technical Notes:

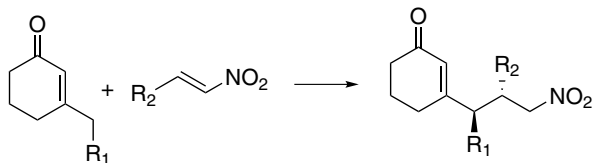
1. [2+3]-dipolar cycloaddition of cyclic enones.
2. Activation of α,β -unsaturated carbonyl compounds:
 (a) vinylogous α -ketol rearrangement.
 (b) vinylogous Michael addition of β -substituted α,β -unsaturated cyclohexanones.
3. Michael addition
 (a) α -nitroacetate to α,β -unsaturated ketones.
 (b) Diastereodivergent Michael addition to α -substituted, α,β -unsaturated ketones.
4. α -benzoyloxylolation of α -branched aldehydes.
5. [4+2]-cycloadditions of β -substituted α,β -unsaturated cyclohexanones with polyconjugated malonitriles.
6. Vinylogous organocascade catalysis with control of remote stereochemistry in the synthesis of spirocyclic oxindoles.



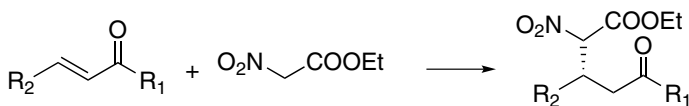
Tech. Note (1)
Ref. (1)



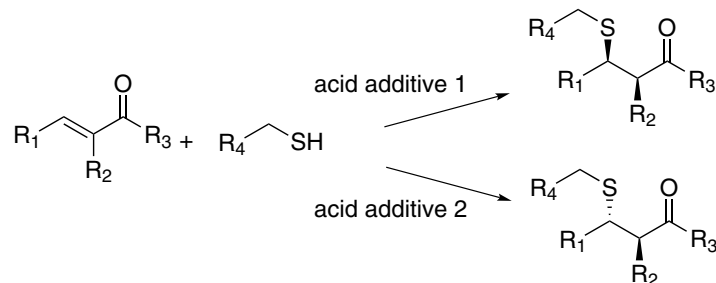
Tech. Note (2a)
Ref. (2)



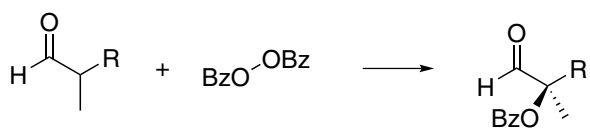
Tech. Note (2b)
Ref. (3)



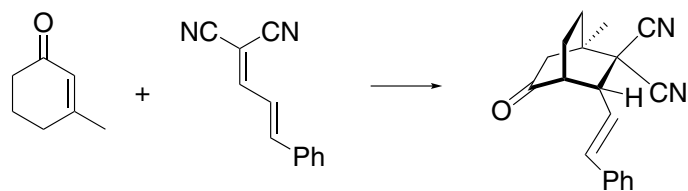
Tech. Note (3a)
Ref. (4,5)



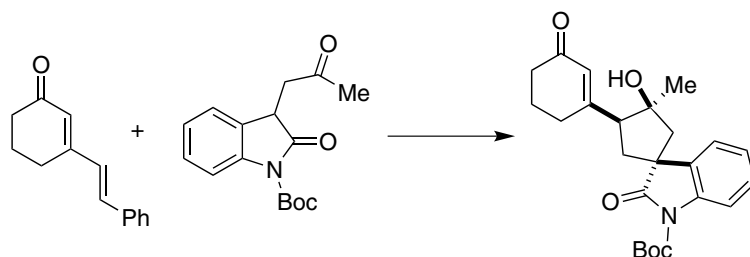
Tech. Note (3b)
Ref. (6)



Tech. Note (4)
Ref. (7)



Tech. Note (5)
Ref. (8)



Tech. Note (6)
Ref. (9)

References:

1. *Angew. Chem. Int. Ed.*, **2007**, 46, 7667
2. *J. Am. Chem. Soc.*, **2009**, 131, 14626
3. *Proc. Nat. Acad. Sci. USA*, **2010**, 107, 20642
4. *Org. Lett.*, **2010**, 12, 2278
5. *Bull. Korean Chem. Soc.*, **2011**, 32, 291
6. *J. Am. Chem. Soc.*, **2011**, 133, 17934
7. *Tetrahedron*, **2012**, 68, 7568
8. *J. Am. Chem. Soc.*, **2012**, 134, 19942
9. *Angew. Chem. Int. Ed.*, **2013**, 52, 5360