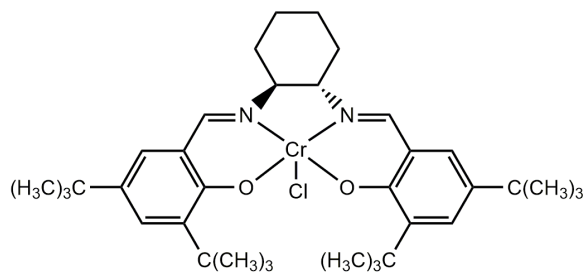
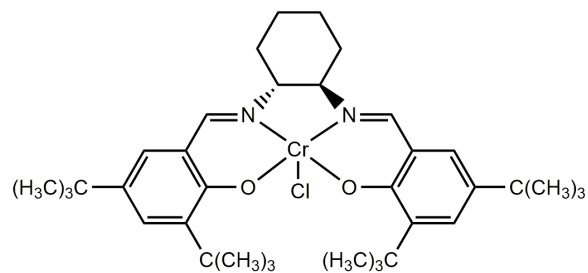


REACTIONS



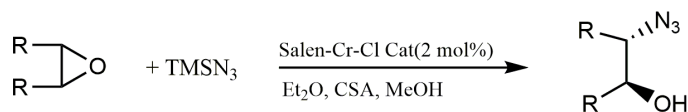
(S, S)-Jacobsen's Salen Cr catalyst



(R, R)-Jacobsen's Salen Cr catalyst

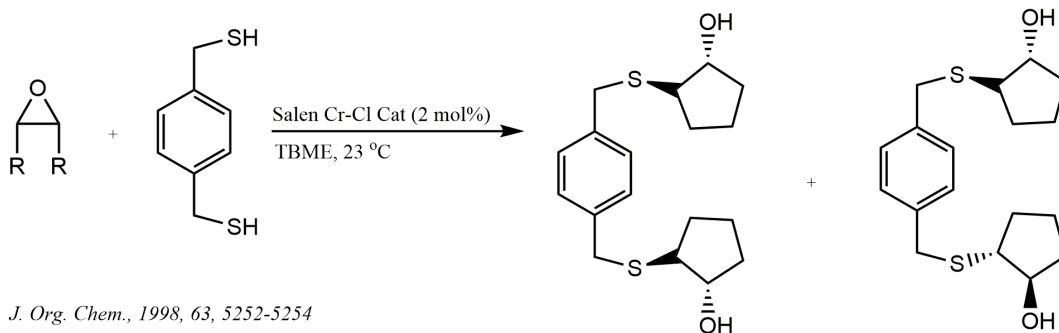
1) ASYMMETRIC RING OPENING:

A) ASYMMETRIC RING OPENING OF MESO EPOXIDES:



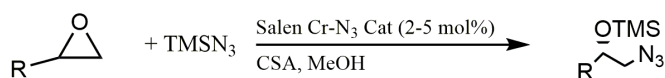
J. Am. Chem. Soc., 1995, 117, 5897-5898

B) ASYMMETRIC RING OPENING OF MESO EPOXIDES WITH THIOL NUCLEOPHILE:



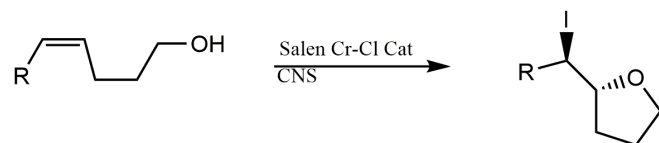
J. Org. Chem., 1998, 63, 5252-5254

C) ASYMMETRIC RING OPENING OF TERMINAL EPOXIDES:



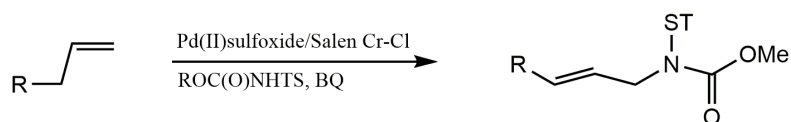
J. Am. Chem. Soc., 1996, 118, 7420-7421

2) ASYMMETRIC IODO CYCLIZATION:



Chem. Eur. J., 2008, 14, 1023

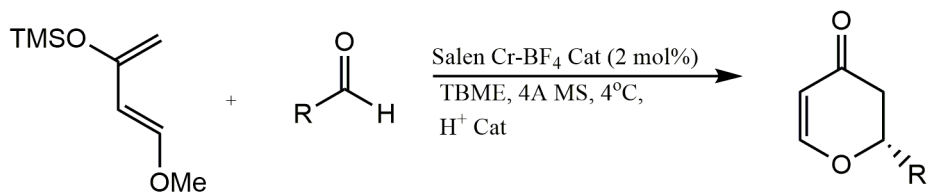
3) CATALYTIC INTERMOLECULAR LINEAR ALLYLIC C-H AMINATION:



J. Am. Chem. Soc., 2008, 130, 3316

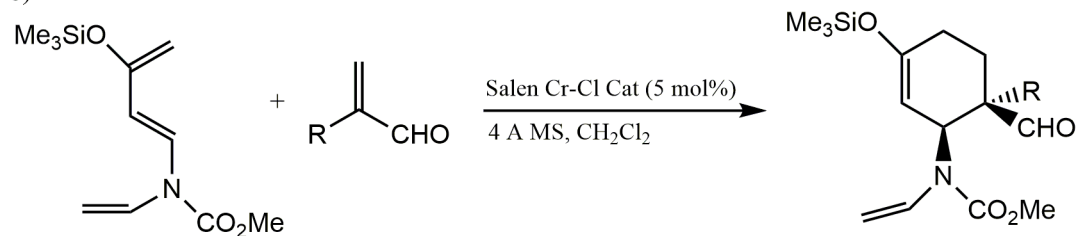
4) ASYMMETRIC HETERO-DIELS ALDER REACTIONS:

a)



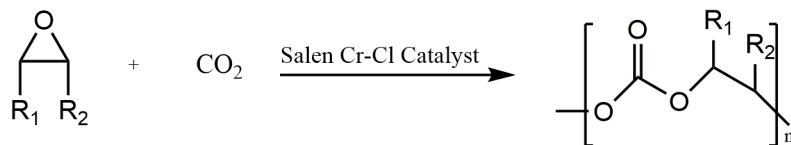
J. Org. Chem., 1998, 63, 403-405

b)



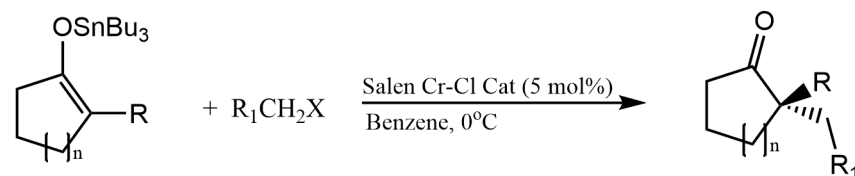
J. Am. Chem. Soc., 2000, 122, 7843

5) CATALYST FOR COPOLYMERIZATION OF CO₂ AND EPOXIDE:



Acc. Chem. Res., 2004, 37, 836

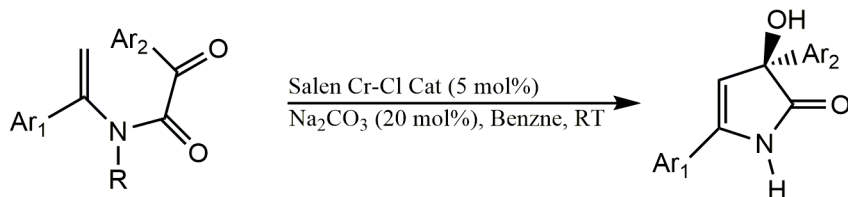
6) ENANTIOSELECTIVE ALKYLATION OF TRIBUTYL TIN ENOLATES:



J. Am. Chem. Soc., 2005, 127, 62

Angew. Chem. Intl. Ed. 2007, 46, 3701

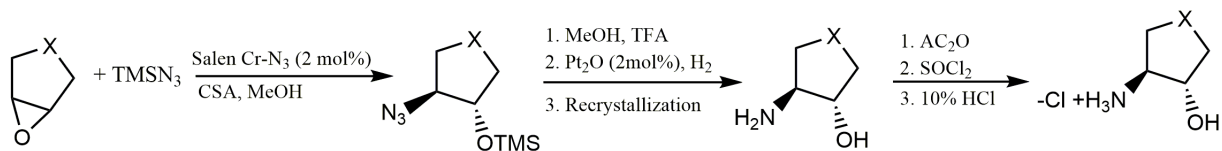
7) ENANTIOSELECTIVE INTRAMOLECULAR ADDITION OF TERTIARY ENAMIDES TO KETONES:



J. Am. Chem. Soc., 2009, 131, 10390

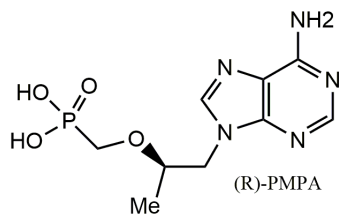
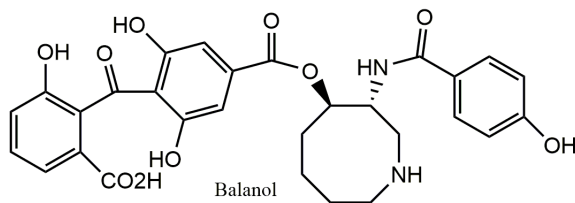
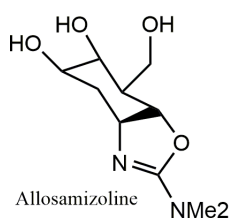
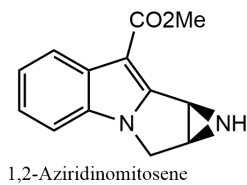
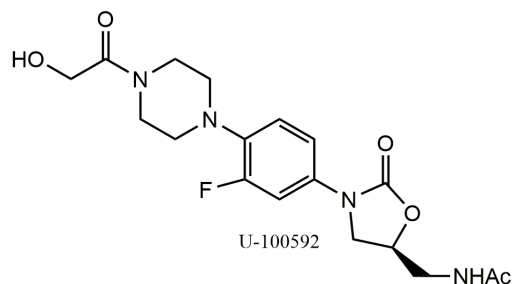
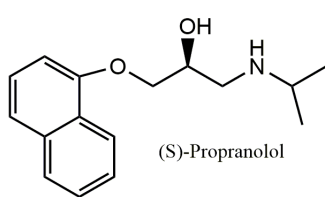
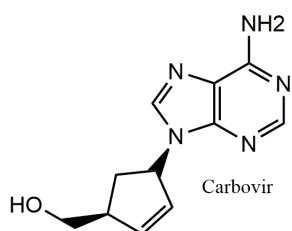
APPLICATIONS

1) ASYMMETRIC RING OPENING (ARO) OF EPOXIDES SYNTHESIS OF CHIRAL AMINO ALCOHOLS:



J. Org. Chem., 1997, 62, 4197-4199

2) LIST OF FEW OF BIOLOGICALLY ACTIVE COMPOUNDS SYNTHESIZED UTILIZING ARO (OR) KR AS THE KEY ASYMMETRIC TRANSFORMATION WITH SALEN Cr CATALYSTS:



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1. *J. Org.chem.*, 1997, 62, 4197
2. *J. Org. Che.*, 1996, 61, 389
3. *J. Org. Chem.*, 1999, 64, 1782 and 4224
4. *J. Org. Chem.*, 1998, 63, 9624
5. *T. Lett.*, 1997, 38, 1693
6. *T.Lett.*, 1996, 37, 7937
7. *J. Am. Chem. Soc.*, 1996, 118, 10924