

useful way to convert alkene to alkyne
 if X's on 1st & 2nd C from end
 NaNH₂ makes terminal
 KOH makes internal

strong base = NaNH₂,
 MR
 R must be 1^o (of RX)

if pH ≠ 7 undergoes oxidative cleavage

syn addn

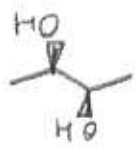
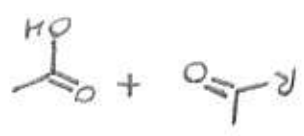
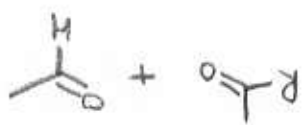
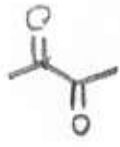
syn addn

just splits C=C, doesn't oxidize aldehyde up

if H on db, product oxidized up to OH (H → OH)

syn addn (note diff between these are next rxns i)

comments
 syn addn



product

1. Br₂
 2. KOH or NaNH₂

1. strong base
 2. RX

KMnO₄, H₂O, pH=7

I₂CH₂, Zn, CuCl

CHCl₃, KOH

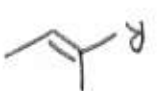
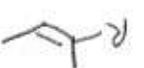
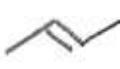
1. OsO₄ 2. HIO₃
 or
 1. O₃ 2. Zn/H or DMS
 or PPh₃ or...

KMnO₄, H⁺, heat
 or
 1. O₃ 2. H₂O₂, HO⁻

KMnO₄, OH⁻, cold
 or
 1. OsO₄ 2. H₂O₂

RCO₃H

reagent



cpd