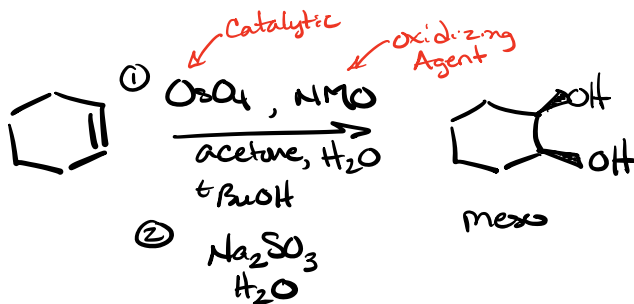
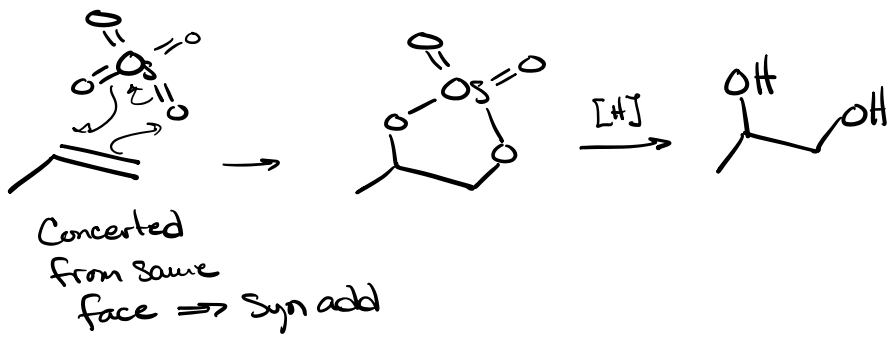
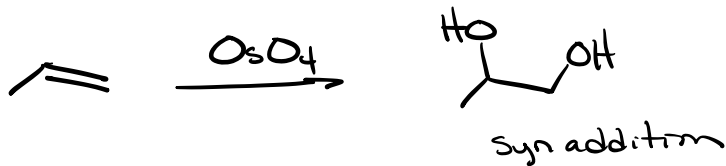
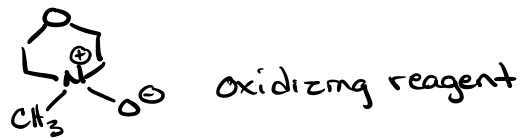


# Alkene Reactions Continued

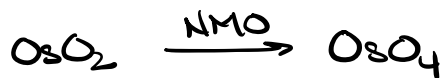
## Dihydroxylation

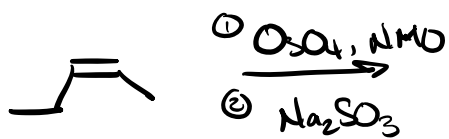
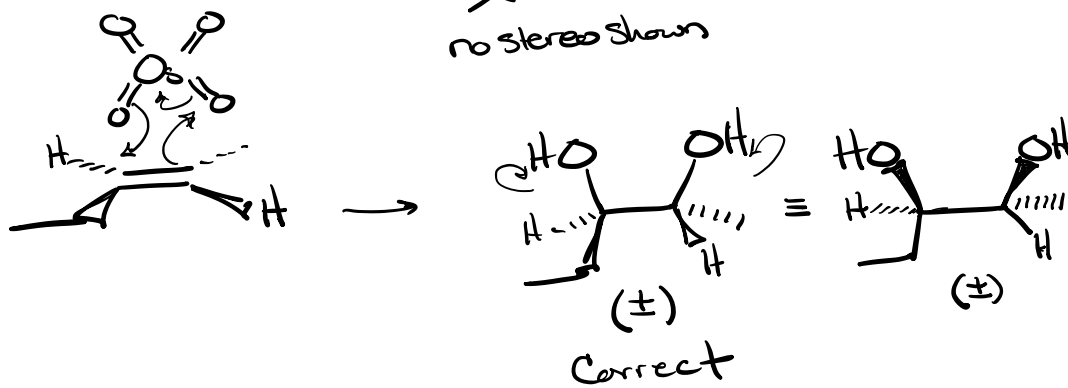
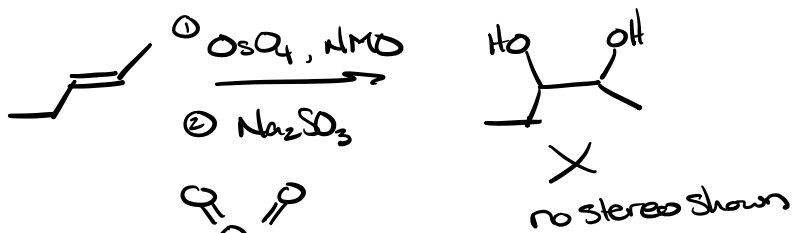


NMO

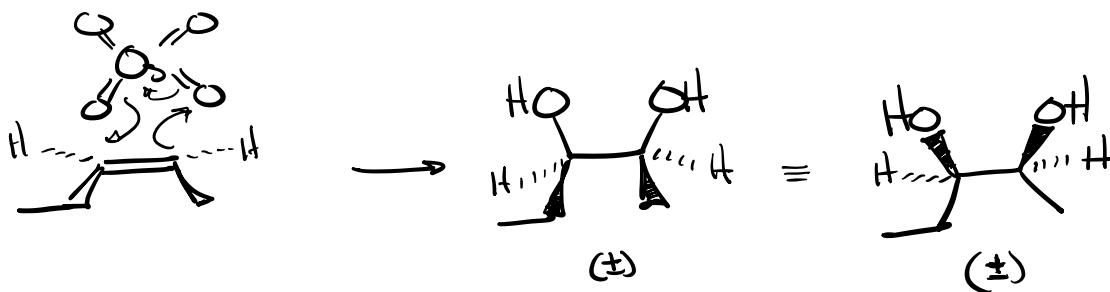


N-Methylmorpholine-N-oxide



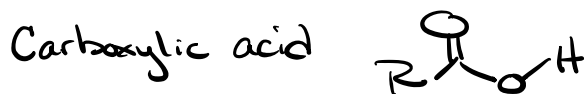


Syn addition

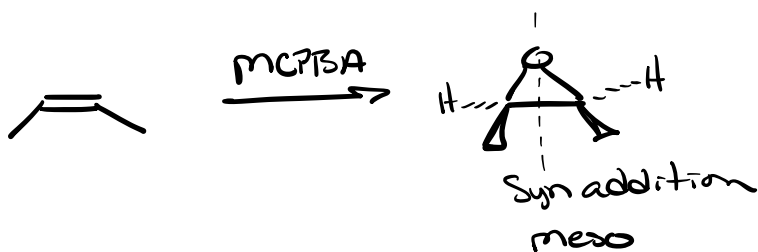
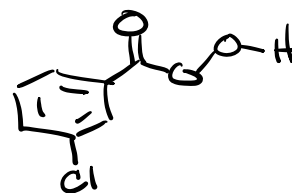


# Epoxidation

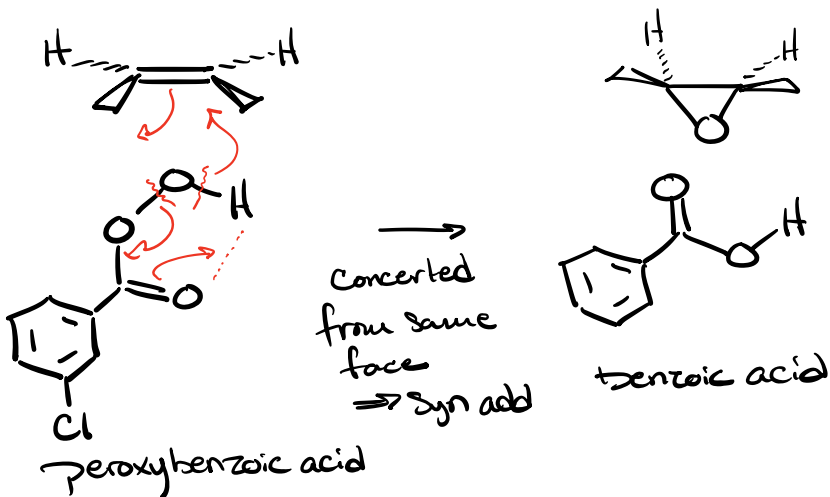
Formation of epoxide (Oxirane)

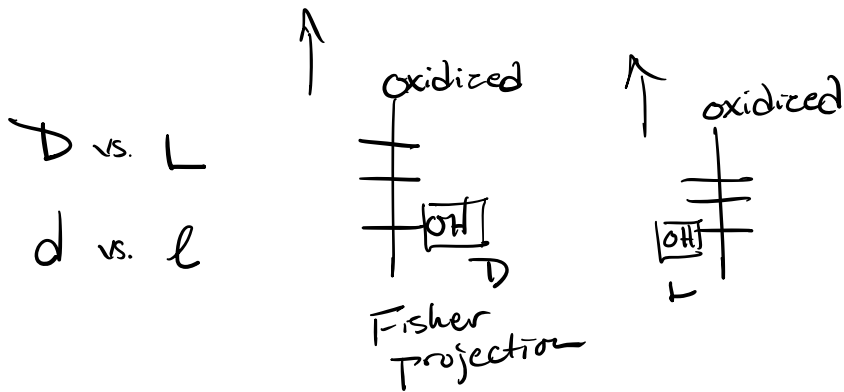
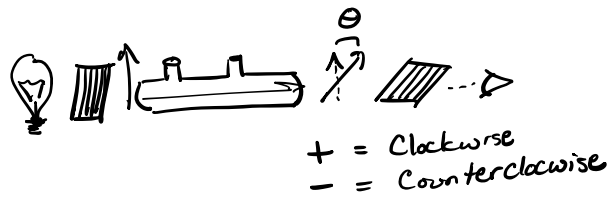
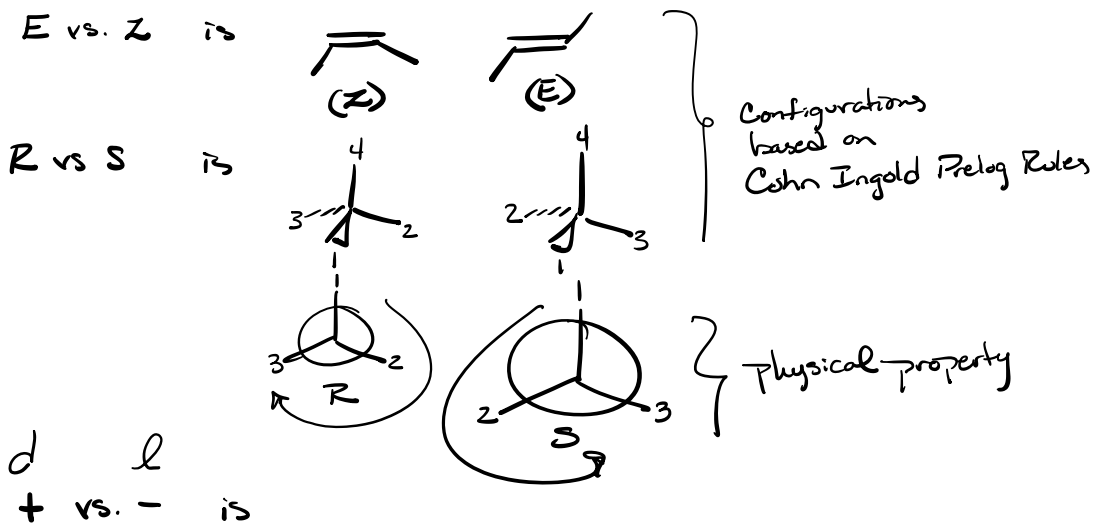
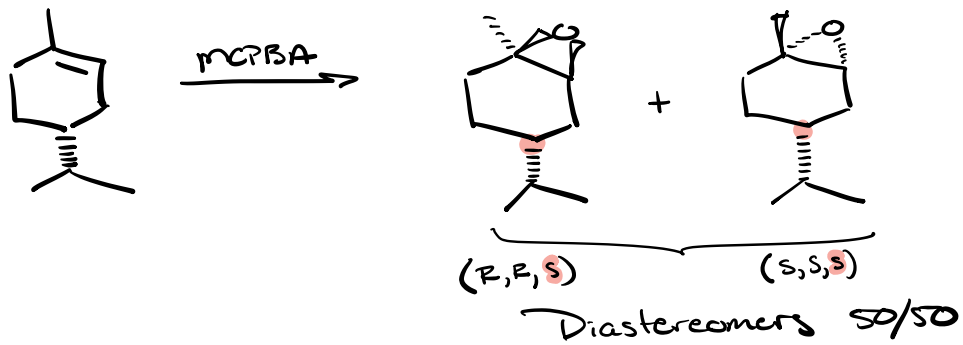


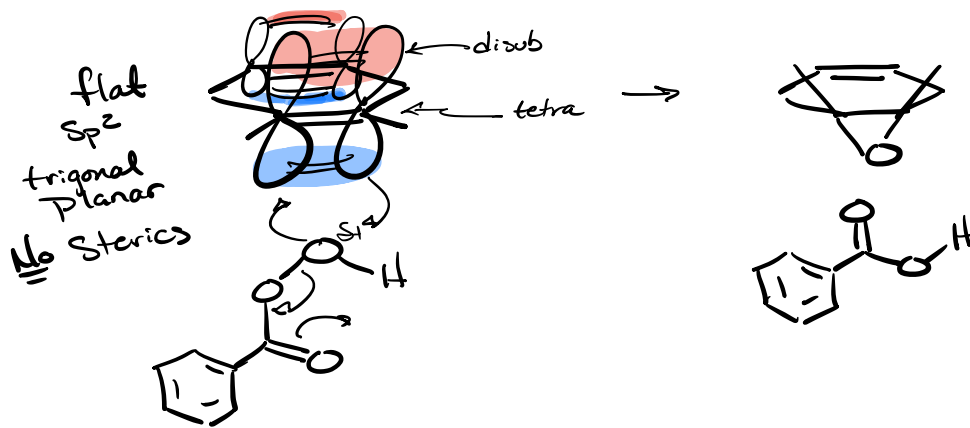
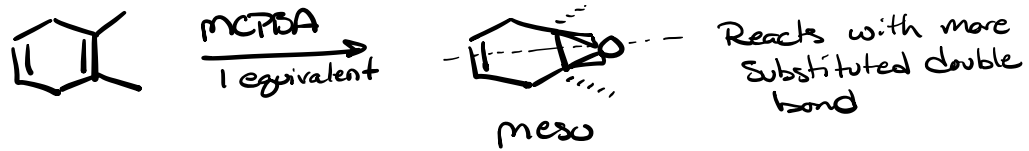
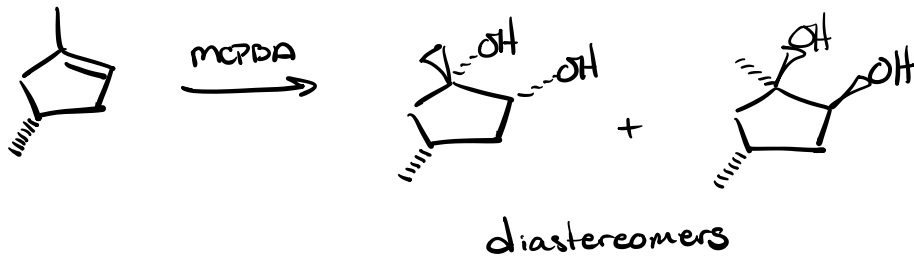
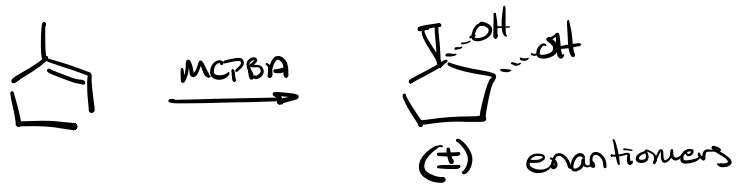
m-Chloroperoxybenzoic acid  
(MCPBA)



## Mechanism

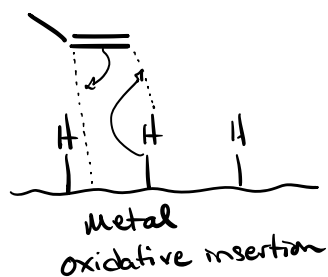
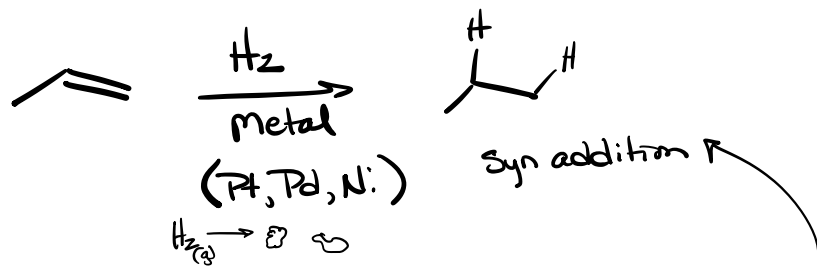




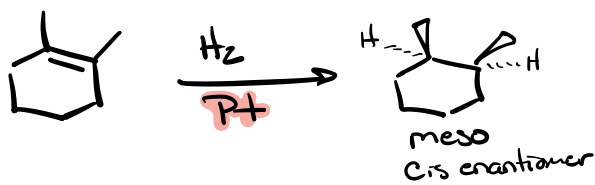


More substituted the double bond  
 $\Rightarrow$  The more reactive the double bond is  $\odot$

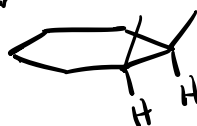
# Catalytic Hydrogenation



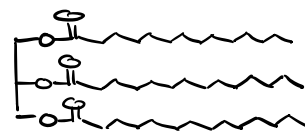
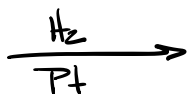
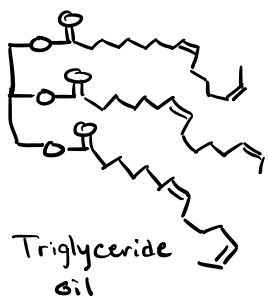
Reductive elimination  
 Carbon is reduced  
 metal is oxidized



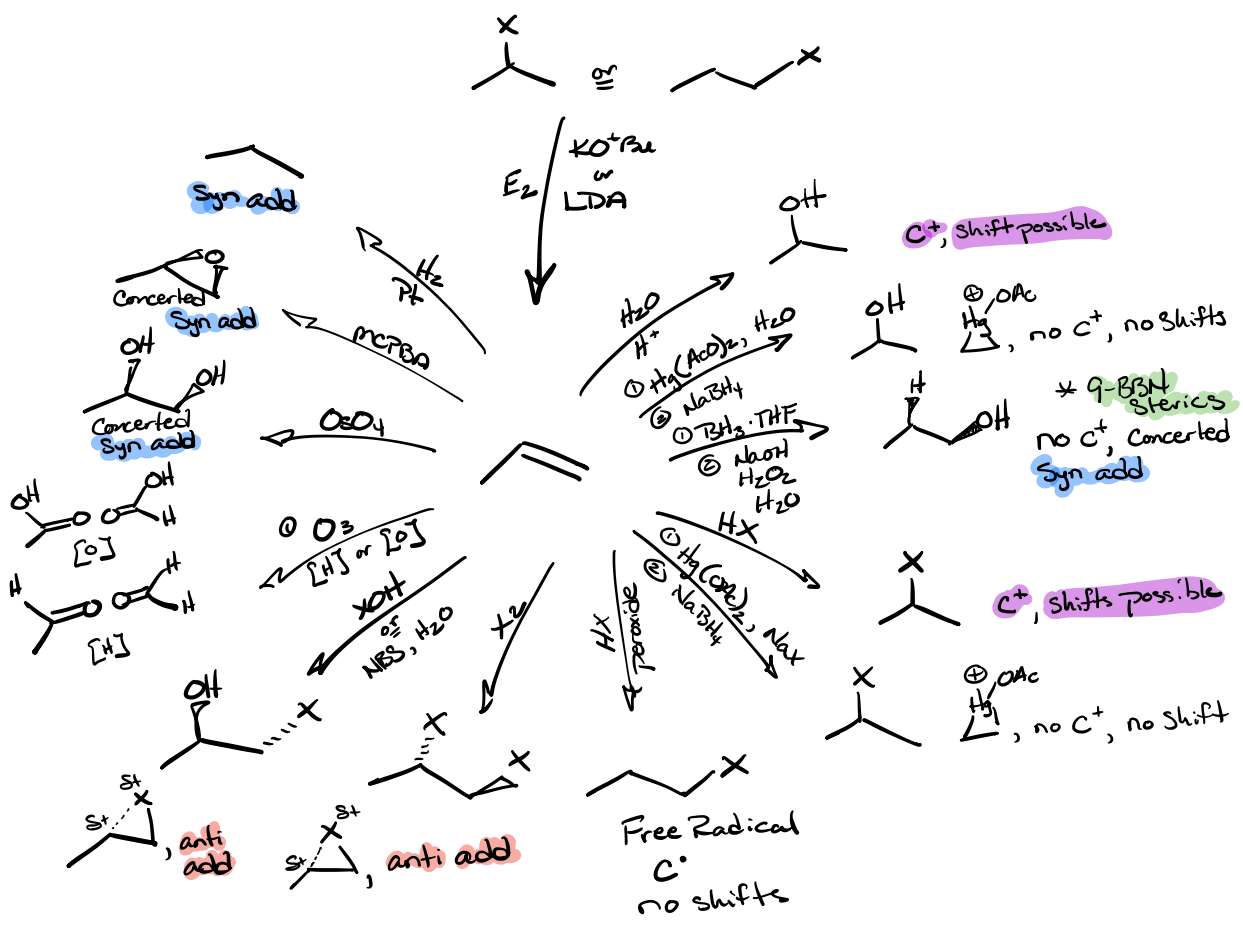
metal can be  
 Pd/C Pt/C  
 Raney Ni

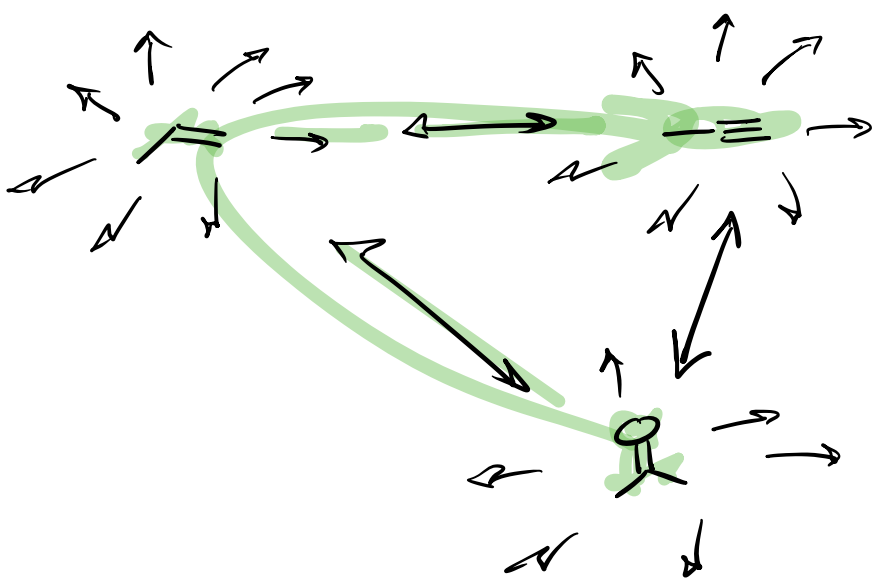


# Hydrogenated Fat (Margarine)



solid hydrogenated fat





Family

$\text{Na}_2\text{O}$	Li	Mg	$\text{MgO}$
$\text{K}_2\text{O}$	Na	Ca	$\text{CaO}$
$\text{Li}_2\text{O}$	K	<span style="border: 1px solid black; padding: 2px;"> </span>	

Missing Element

$\text{NO}_2$   
 $\text{P}_2\text{O}_2$