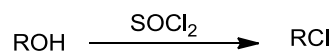


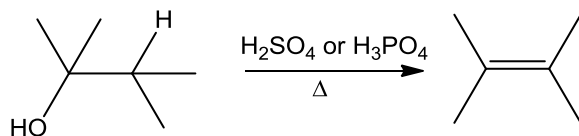
## Functional group reactions studied in CHEM 261

### Alcohols

1. Reaction with  $\text{SOCl}_2$ ,  $\text{PX}_3$  or  $\text{HX}$

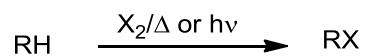


2. Dehydration



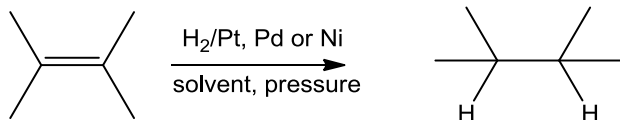
### Alkanes

1. Halogenation

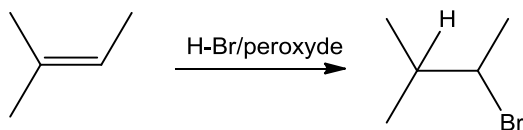
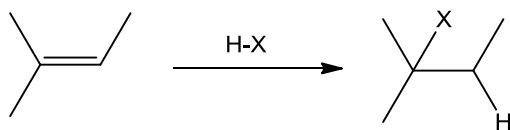


### Alkenes

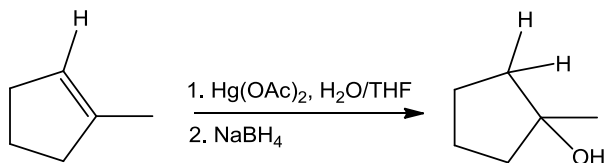
1. Hydrogenation



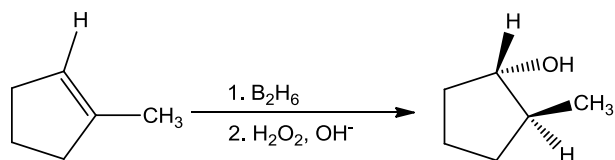
2. Addition of  $\text{HX}$



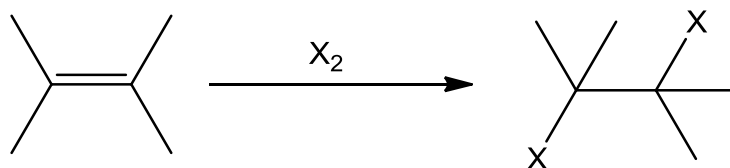
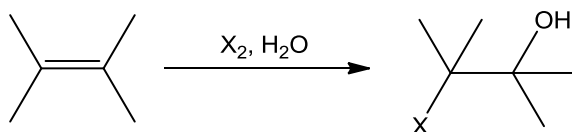
3. Oxymercuration



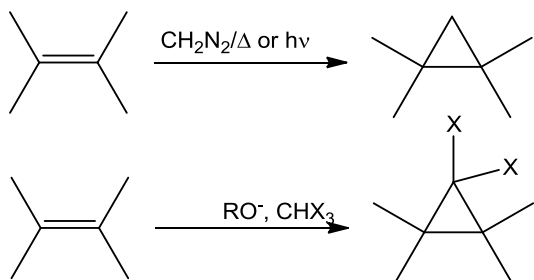
## 4. Hydroboration



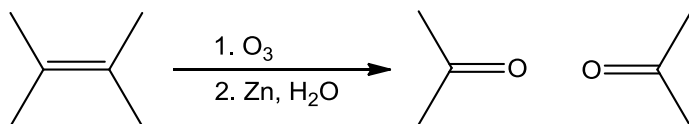
## 5. Addition des halogènes

6. Addition of  $X_2/H_2O$ 

## 7. Addition of carbenes

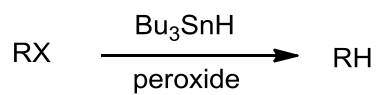


## 8. Ozonolysis

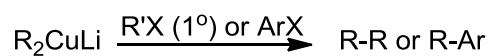
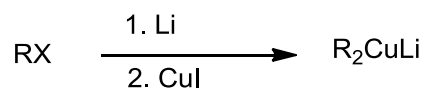


## Alkyl halides

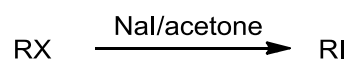
## 1. Reduction



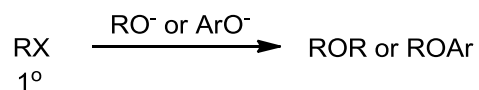
## 2. Corey - Posner, Whitesides – House synthesis



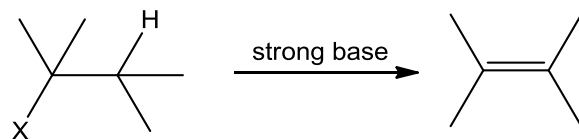
## 3. Finkelstein reaction



## 4. Williamson synthesis

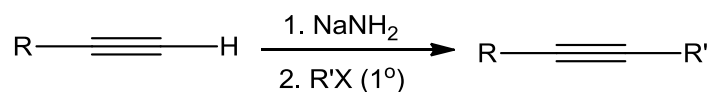


## 5. Dehydrohalogenation

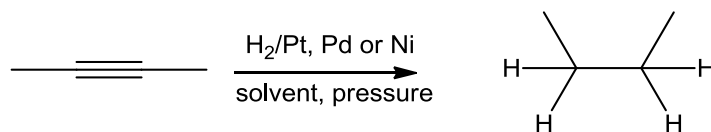


## Alkynes

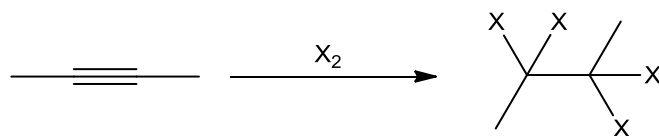
## 1. Alkylation of terminal alkynes



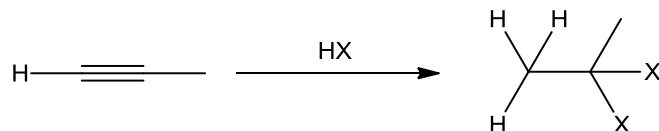
## 2. Catalytic hydrogenation



## 3. Addition of halogens



## 4. Addition of HX



## 5. Formation of oxacyclopropanes

