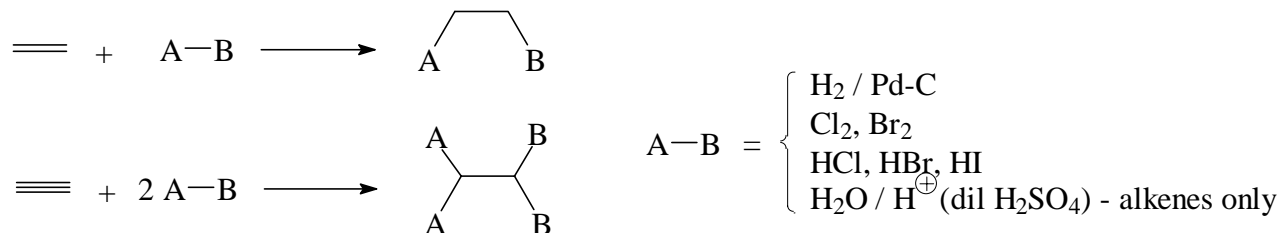
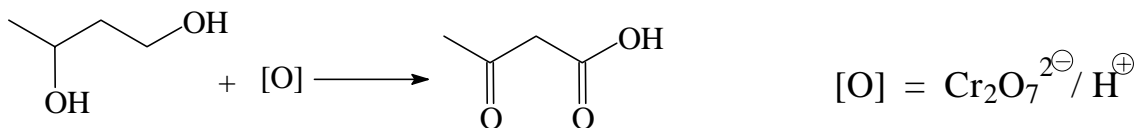
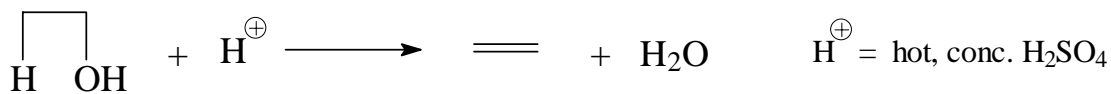
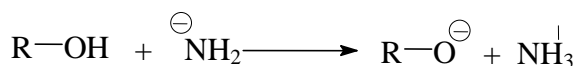


SUMMARY OF REACTIONS

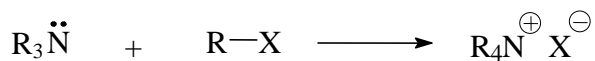
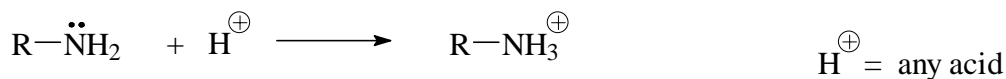
Alkenes and Alkynes- Electrophilic Addition



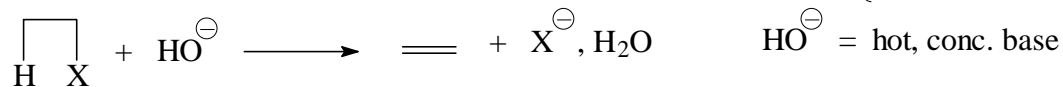
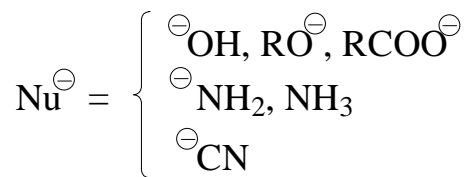
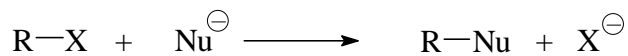
Alcohols – Acid-Base, Elimination, Oxidation



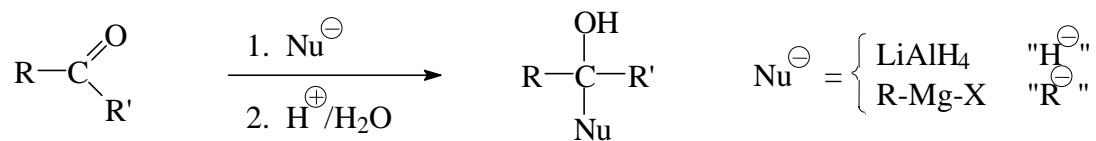
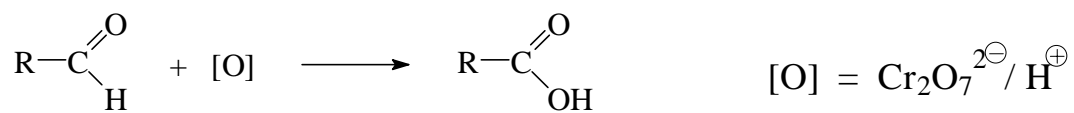
Amines – Acid-Base, Substitution



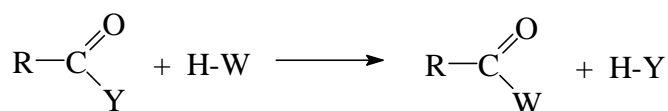
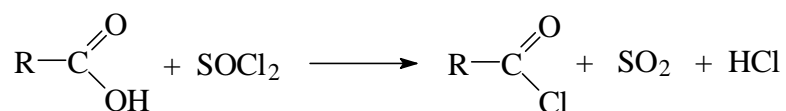
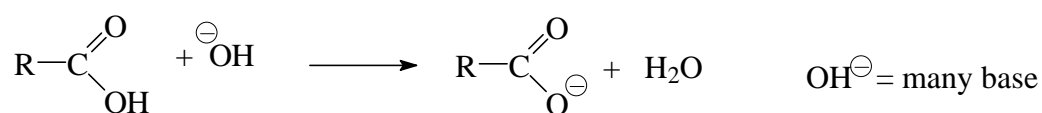
Alkyl Halides – Nucleophilic Substitution and Elimination



Aldehydes and Ketones – Nucleophilic Addition and Oxidation



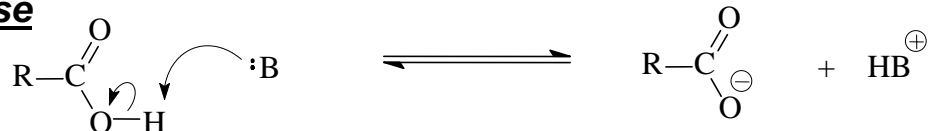
Carboxylic Acids and Derivatives – Acid/base and Nucleophilic Substitution



Y	W
Cl	OH, OR, NR ₂
OR	OH, NR ₂
NR ₂	OH

SUMMARY OF MECHANISMS

Acid/Base

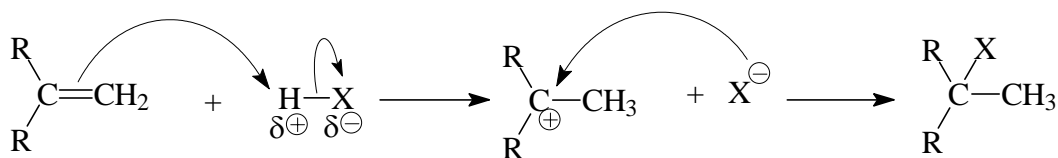


		pK _a	React with NH ₂ [⊖]	React with OH [⊖]	React with HCO ₃ [⊖]
Carboxylic Acid	RCOOH	~5	✓	✓	✓
Phenol	C ₆ H ₅ OH	9.9	✓	✓	X
Alcohol	ROH	~16	✓	X	X

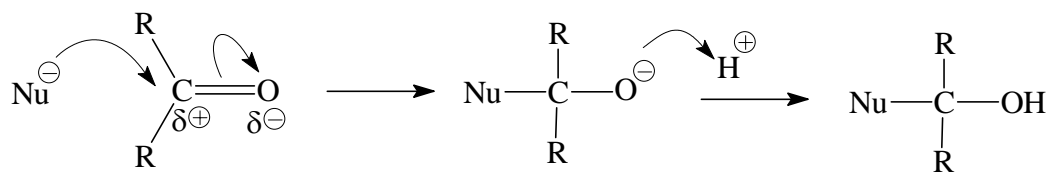


Addition

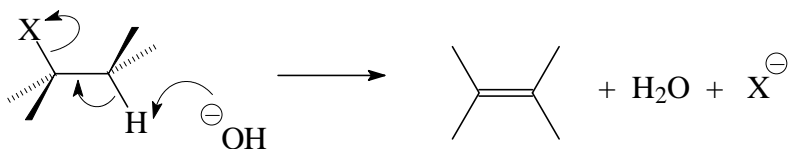
Electrophilic addition



Nucleophilic addition

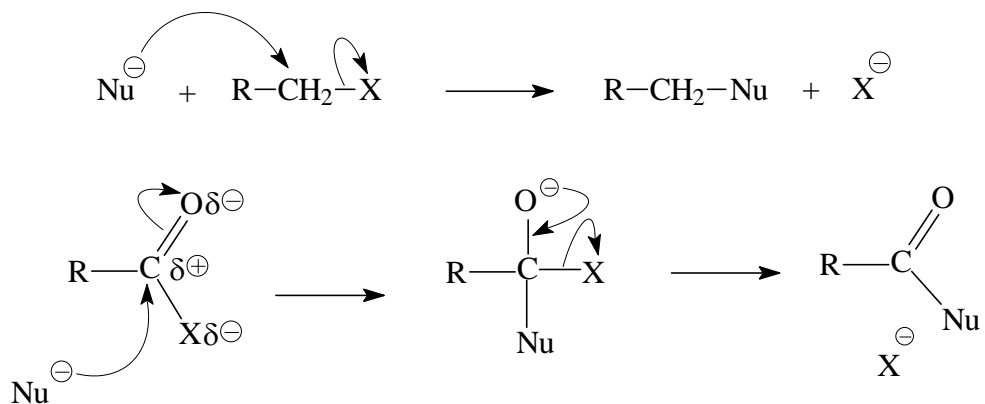


Elimination



Substitution

Nucleophilic substitution



Oxidation

$[\text{O}] = \text{Cr}_2\text{O}_7^{2-} / \text{H}^+$

