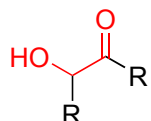


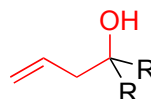
# Structure Motifs and Associated Name Reactions

Bonds and Atoms highlighted in color refer to the corresponding keying-element  
(this list is only meant as a guideline, alternate reactions may lead to identical structures)

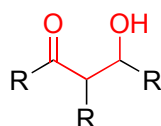
## Structure:   Name Reaction:



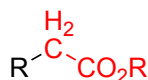
Acyloin Condensation,  
Benzoin Condensation,  
Rubottom Oxidation



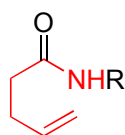
Alder-Ene Reaction,  
Carbonyl Allylation



Aldol Reaction (+ Variants)  
Reformatsky Reaction



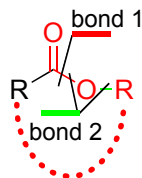
Arndt-Eistert Homologation



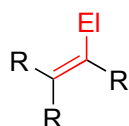
Aza-Claisen



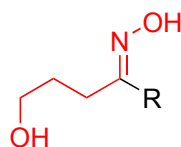
Aza-Wittig,  
Amine-Carbonyl  
Condensation



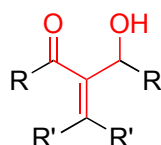
Fischer Esterification (bond 1),  
Yamaguchi Macrolactonization (bond 1),  
Baeyer-Villiger Oxidation (bond 2)



Bamford-Stevens-Shapiro,  
Schwarz Reaction (EI = electrophile)

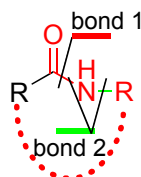


Barton-Nitrite-Ester-Reaction

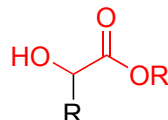


Baylis-Hillman,  
Eschenmoser  
Methenylation (R' = H)

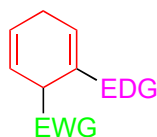
## Structure:   Name Reaction:



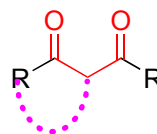
Beckmann Reaction (bonds 2),  
Schmidt Reaction (bonds 2),  
Schotten-Baumann  
Reaction (bond 1),  
Ritter Reaction (NR and CO  
bond is formed)



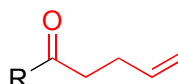
Benzilic Acid Rearrangement,  
Rubottom Oxidation,  
Davis Oxidation



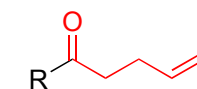
Birch Reduction  
EDG = electron donating group  
EWG = electron withdrawing group



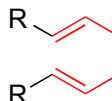
Claisen Condensation  
Dieckmann Condensation (cyclic)



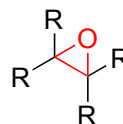
Claisen Rearrangement



Ireland-Claisen Rearrangement  
R = OSiR<sub>3</sub>  
Eschenmoser-  
Claisen Rearrangement  
R = NMe<sub>2</sub>  
Johnson-Claisen Rearrangement  
R = OMe



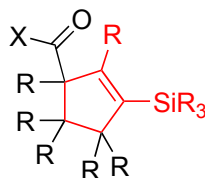
Cope Rearrangement



Darzens Glycidic Ester  
Condensation,  
Corey-Chaykovsky,  
Davis Oxidation,  
Jacobsen-Katsuki Oxidation,  
Prilezhaev Oxidation (mCPBA)



Corey-Fuchs Reaction,  
Bestmann-Ohira Homologation  
Seyferth-Gilbert Homologation,  
Alkyne Alkylation (green bond)



Danheiser Cyclopentene  
Annulation  
R = alkyl or OR'