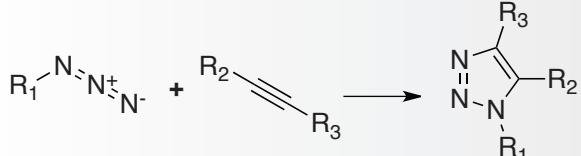


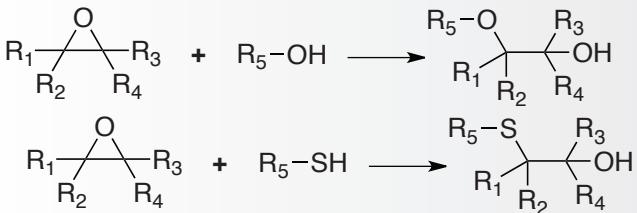
Cycloadditions of Unsaturated Species

1,3-dipolar cycloaddition reactions



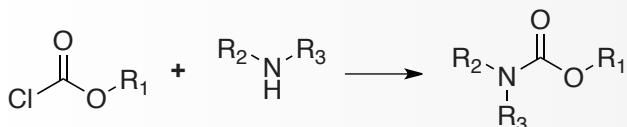
Nucleophilic substitution chemistry

Epoxide ring-opening reactions

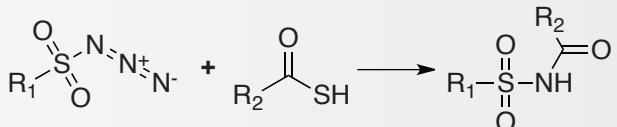


Carbonyl chemistry of the “non-alcohol” type

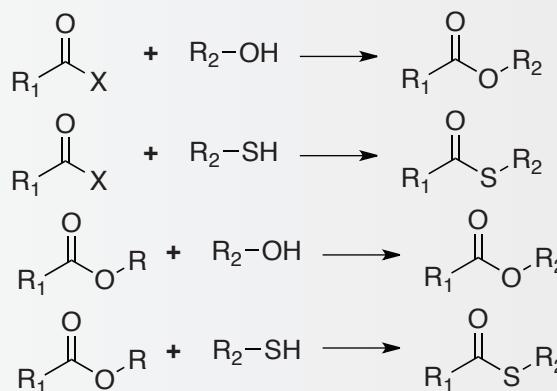
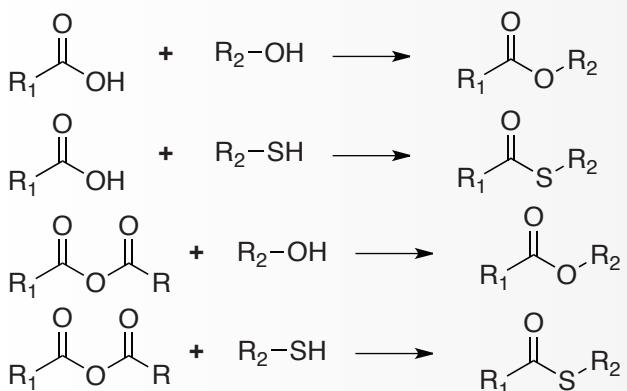
Chloroformate + amine



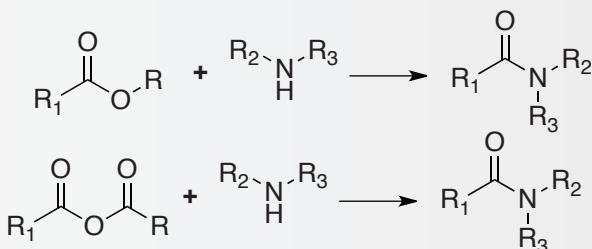
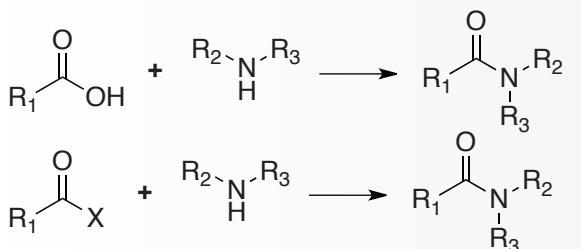
Sulfonyl Azide + Thio Acid



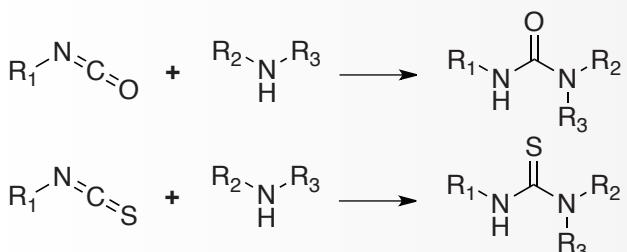
Esterification, thioesterification, and transesterification



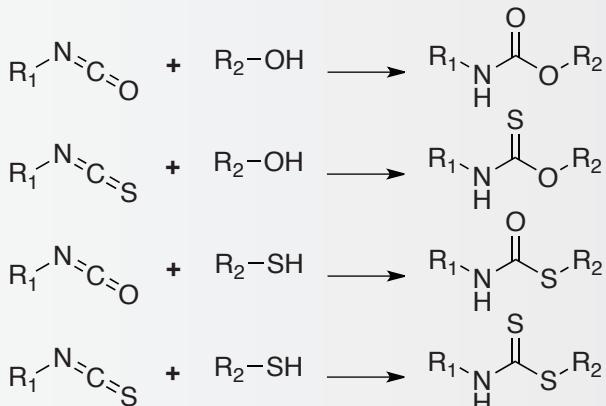
Amidification



Urea and thiourea formation

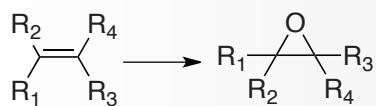


Carbamate, carbamothioate, and carbamodithioate formation



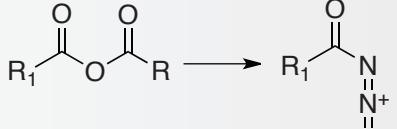
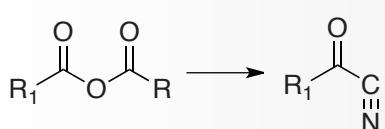
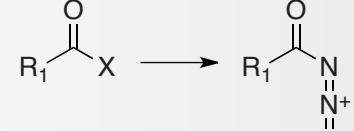
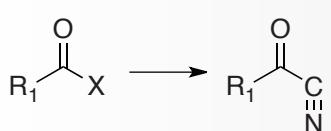
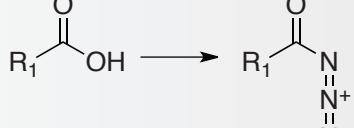
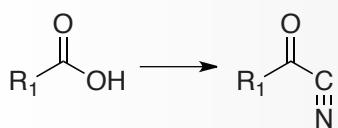
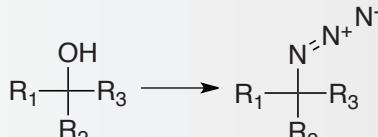
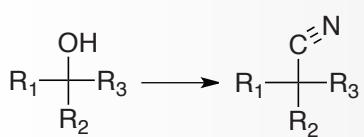
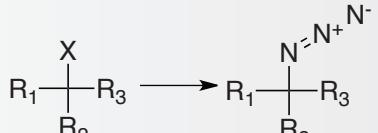
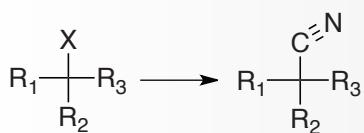
Additions to carbon-carbon multiple bonds

Epoxidation



Supporting reactions

Azide and cyanide formation



Primary amine oxidation and reduction to an amine

