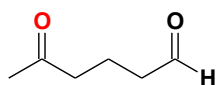


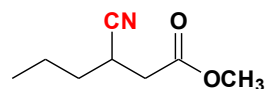
Supplementary Handout: Nomenclature of Common Functional Groups

Functional Groups Listed in Order of Decreasing Priority

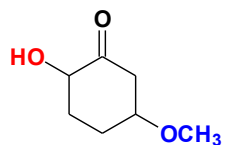
Functional Group	Generic Formula	Principal Name (suffix)	Substituent Name (prefix)
Carboxylic Acid	RCO_2H	alkan <i>oic acid</i>	carboxy
Carboxylic Anhydrides	RC(O)OC(O)R	alkan <i>oic anhydride</i>	
Carboxylic Esters	$\text{RCO}_2\text{R}'$	alkyl alkan <i>oate</i>	alkoxycarbonyl
Acid Halides	RC(O)X	alkan <i>oyl halide</i>	halocarbonyl
Amides	RC(O)NR_2	alkan <i>amide</i>	amido
Nitriles	RCN	alkan <i>enitrile</i>	cyano
Aldehydes	RC(O)H	alkan <i>al</i>	oxo
Ketones	$\text{RC(O)R}'$	alkan <i>one</i>	oxo
Alcohols	ROH	alkan <i>ol</i>	hydroxy
Phenols	ArOH	<i>phenol</i>	hydroxy
Thiols	RSH	alkan <i>ethiol</i>	mercapto
Amines	$\text{RNH}_2, \text{R}_2\text{NH}, \text{R}_3\text{N}$	alkan <i>amine</i>	amino
Imines	$\text{RC(NH)R}'$, RC(NR'')R	alkan <i>imine</i>	imino
Alkene	$\text{R}_2\text{C}=\text{CR}_2$	alk <i>ene</i>	alkenyl
Alkyne	RCCR	alk <i>yne</i>	alkynyl
Alkane	RH	alkane	alkyl
Ethers	ROR		alkoxy
Sulfides (Thioethers)	RSR		alkylthio
Halides	$\text{RX}, \text{X} = \text{F}, \text{Cl}, \text{Br}, \text{I}$		halo
Nitro	RNO_2		nitro
Azides	RN_3		azido



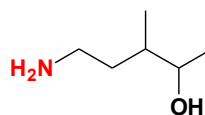
5-oxohexanal



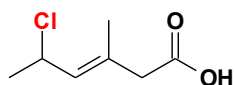
methyl 3-cyanoheptanoate



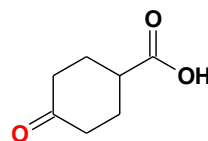
2-hydroxy-5-methoxycyclohexanone



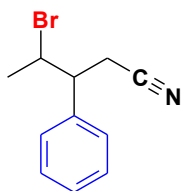
5-amino-3-methyl-2-pentanol



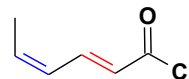
(E)-5-chloro-3-methyl-3-hexenoic acid



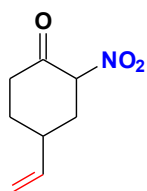
4-oxocyclohexanecarboxylic acid



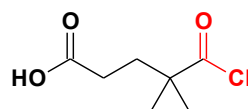
4-bromo-3-phenylpentanenitrile



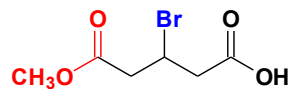
(2E,4Z)-2,4-hexadienoyl chloride



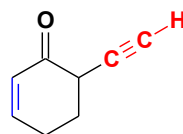
4-ethenyl-2-nitrocyclohexanone



4-chlorocarbonyl-4-methylpentanoic acid



3-bromo-4-methoxycarbonylbutanoic acid



6-ethynyl-2-cyclohexen-1-one