***Supplement #2: Typical Functional Group Chemistries Studied in 1st Year Organic***

 ***Chemistry (see also: Table 2.1 pg 56 of text)***

 *Chemistry 3514 Organic Chemistry I*

**Y functional group name R-Y condensed form1**

**-OH alcohols ROH**

**-OR’ ethers ROR’**

**-F,Cl,Br,I alkyl halides RX**

**-N(H orR)3 amines RNH2, RNHR’, RNR’R”**

**>C=C< alkene RR’C=CR”R’’’**

**-C≡C- alkyne RC≡CR’**





 **arene (aromatic)**

**-C=O aldehydes RCHO**

 **|**

 **H**

**-C=O ketones RCOR”**

 **|**

 **R”**

**-C=O esters RCOOR”**

 **|**

 **OR”**

**-C=O carboxylic acid RCOOH**

 **|**

 **OH**

**-C=O acid chloride RCOCl**

 **| (acyl chloride)**

 **Cl**

**-C=O amide RCONH2, RCONHR’, RCONR’R”**

 **|**

 **N(H,R”)2**

**-SH thiol RSH**

**-S- sulfide R’SR**

**1R- =alkyl group (CnH2n+1) can be substituted by alkenyl (C=C- ); alkynl (C ≡C-) and aryl ( arene ) which are also functional groups**