

# SCH 4C Organic Compounds

Structure	Functional Group	Name	Polarity
① $\begin{array}{c}   &   &   \\ -C & -C & -C- \\   &   &   \\ 1 & 2 & 3 \end{array} OH$	alcohol	1-propanol	high
② $\begin{array}{c} O \\    \\ H-C-N-H \\   \\ H \end{array}$	amide	<del>                    </del>	(very high)
③ $\begin{array}{c} O \\    \\ -C-C-C- \\   &   &   \\ 1 & 2 & 3 \end{array}$	ketone	2-propanone	medium
④ $\begin{array}{c}   &   &   &   \\ -C & -C & -C & -C- \\   &   &   &   \\ 1 & 2 & 3 & 4 \end{array}$	alkane	butane	non-polar
⑤ $\begin{array}{c}   &   &   & O \\ -C & -C & -C & -C- \\   &   &   &   \\ 4 & 3 & 2 & 1 \end{array} H$	aldehyde	butanal	medium
$HO-C(=O)-CH_3$	carboxylic acid	ethanoic acid	very high
⑥ $\begin{array}{c}   & &   \\ -C & -O- & -C- \\   & &   \end{array}$	ether	<del>                    </del>	low
⑦ $\begin{array}{c} H & &   &   \\ H-N & - & C & -C- \\   & &   &   \\ H & & & & \end{array}$	amine	<del>                    </del>	(high)
⑧ $\begin{array}{c} OH \\   \\ -C-C-C- \\   &   &   \\ 1 & 2 & 3 \end{array}$	alcohol	2-propanol	high
⑨ $\begin{array}{c}   &   &   &   \\ C & = & C & -C & -C- \\   & &   &   &   \\ 1 & & 2 & 3 & 4 \end{array}$	alkene	1-butene	non-polar
⑩ $\begin{array}{c}   &   & &   &   \\ -C & -C & -C & \equiv & C & -C & -C- \\   &   &   & &   &   &   \\ 1 & 2 & 3 & & 4 & 5 & 6 \end{array}$	alkyne	3-hexyne	non-polar
⑪ $\begin{array}{c}   &   &   &   &   \\ -C & -C & -C & = & C & -C- \\   &   &   & &   &   \\ 5 & 4 & 3 & & 2 & 1 \end{array}$	alkene	2-pentene	non-polar

$\begin{array}{cccc} &   & &   \\ &   & &   \\ \textcircled{13} & \text{---C---C---C---C---} & & \\ &   &   &   \\ & 4 & 3 & 2 & 1 \end{array}$	ketone	2-butanone	medium
$\begin{array}{cccccc} &   &   &   &   &   \\ &   &   &   &   &   \\ \textcircled{14} & \text{---C---C---C---C---C---} & & & & \text{---OH} \\ &   &   &   &   &   \\ & 5 & 4 & 3 & 2 & 1 \end{array}$	carboxylic acid	pentanoic acid	very high
$\begin{array}{c} \textcircled{15} \\ \begin{array}{c} \diagup & \diagdown \\ & \text{C} = \text{C} \\ \diagdown & \diagup \\ & 2 \end{array} \end{array}$	alkene	ethene (1-ethene)	non-polar
$\begin{array}{cccc} &   &   &   \\ &   &   &   \\ \textcircled{16} & \text{---C---C---C---C---} & & \\ &   &   &   \\ & 4 & 3 & 2 & 1 \end{array}$	alcohol	2-butanol	high
$\begin{array}{cccc} &   & &   \\ &   & &   \\ \textcircled{17} & \text{---C---C---O---C---C---} & & \\ &   & &   \end{array}$	ether	<del>        </del>	low
$\begin{array}{cccccc} &   &   &   &   &   \\ &   &   &   &   &   \\ \textcircled{18} & \text{---C---C---C---C---C---C---} & & & & \\ &   &   &   &   &   \\ & 6 & 5 & 4 & 3 & 2 & 1 \end{array}$	alkane	hexane	non-polar
$\begin{array}{cccc} &   &   &   \\ &   &   &   \\ \textcircled{19} & \text{---C---C---C---C---C---} & & \\ &   &   &   \\ & 2 & 3 & 4 & 5 \end{array}$	alcohol	3-pentanol	high
$\begin{array}{cccc} &   &   &   \\ &   &   &   \\ \textcircled{20} & \text{---C---C---C---C---} & & \\ &   &   &   \\ & 5 & 4 & 3 & 2 \end{array}$	carboxylic acid	pentanoic acid	very high