

Homologous series

Alcohol
Alkane
Alkene
Carboxylic acid
Ester
Alkyne

Functional group

$-C \equiv C-$ <p>Triple covalent bond</p>
$C-H \quad -\overset{\overset{ }{ }}{\underset{\underset{ }{ }}{C}}-\overset{\overset{ }{ }}{\underset{\underset{ }{ }}{C}}-$ <p>C-H or C-C single covalent bond</p>
$\begin{array}{c} R-O \\ \\ H \end{array}$ <p>Hydroxyl group</p>
$\begin{array}{c} O \\ \\ R-C-OH \end{array}$ <p>Carboxyl group</p>
$\begin{array}{c} O \\ \\ R-C-OR' \end{array}$ <p>Carboxylate group</p>
$\diagup C = C \diagdown$ <p>Double covalent bond</p>