

$$R-C\equiv C-R$$
 Alkyne

$$\begin{array}{c}
O \\
R
\end{array}$$
Carboxylic Acid
$$\begin{array}{c}
R \\
R
\end{array}$$
C=C\frac{R}{R}

Alkene

$$R \subset C \subset R$$
 Alkene