=\

ethylene



$$H_2C=C=O$$

$$H_2C = C = CH_2$$

$$HC \equiv C - C \Big|_{H}^{O}$$

acetylene

$$HC \equiv C - Me$$

$$Me-C \equiv C-C \equiv C-Me$$

$${}^{1}\Sigma_{g}$$

$${}^{3}\Sigma_{u}$$

$$\bigcirc C \equiv C \bigcirc \bigcirc$$

$$^{3}\Pi_{\mathbf{u}}$$

$$^{3}\Sigma_{g}^{-}$$