

Problem 4, Chemistry 301X-2006

a. Construct the π molecular orbitals for ethylene, $\text{H}_2\text{C}=\text{CH}_2$. You will have to work out the interactions between a pair of side-to-side $2p$ orbitals.

b. Use the π molecular orbitals of ethylene to construct the π MOs of 1,3-butadiene,

