

FIGURE 7.11 Formation of the molecular orbitals for ethylene.

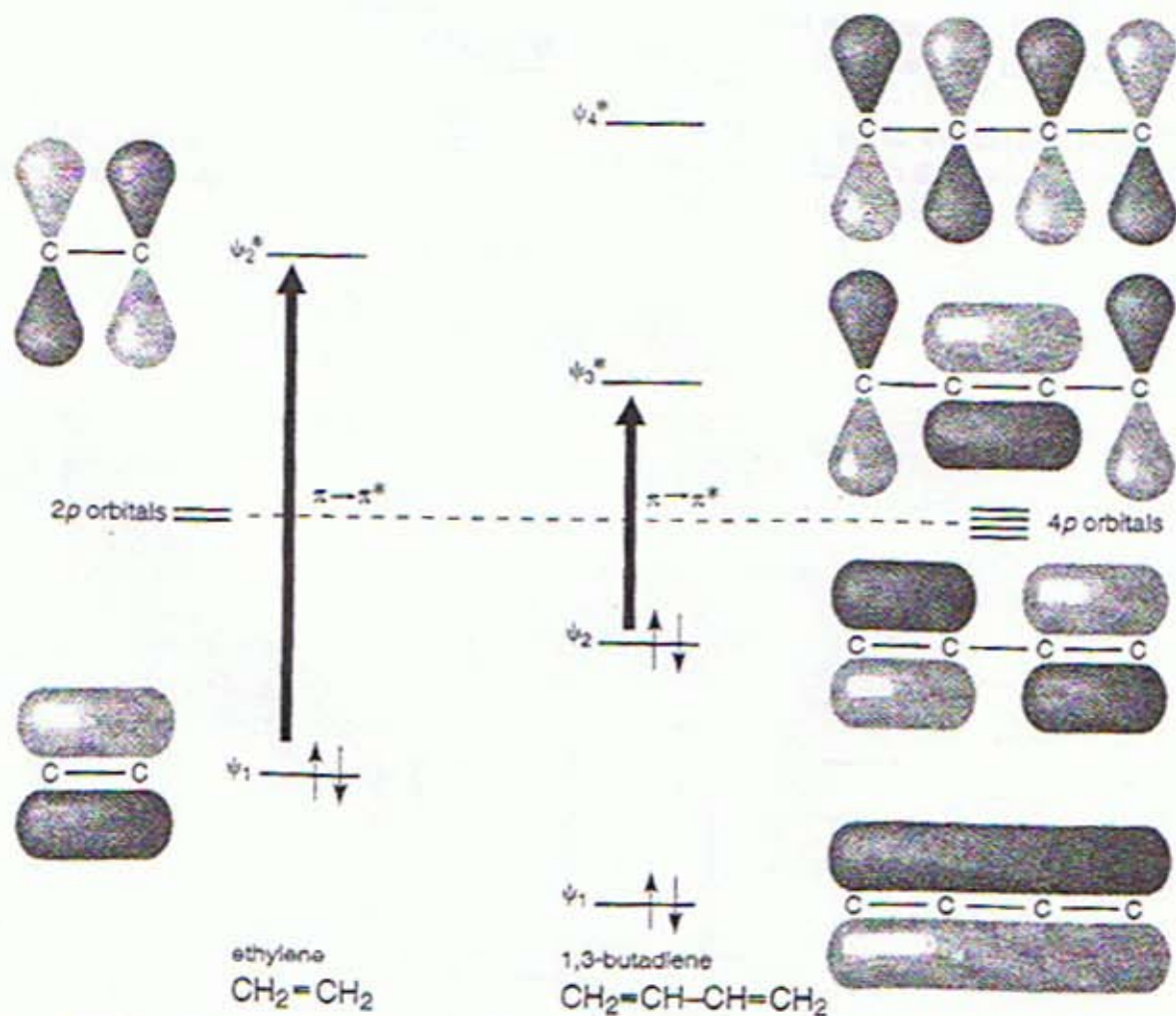


FIGURE 7.12 A comparison of the molecular orbital energy levels and the energy of the  $\pi \rightarrow \pi^*$  transitions in ethylene and 1,3-butadiene.