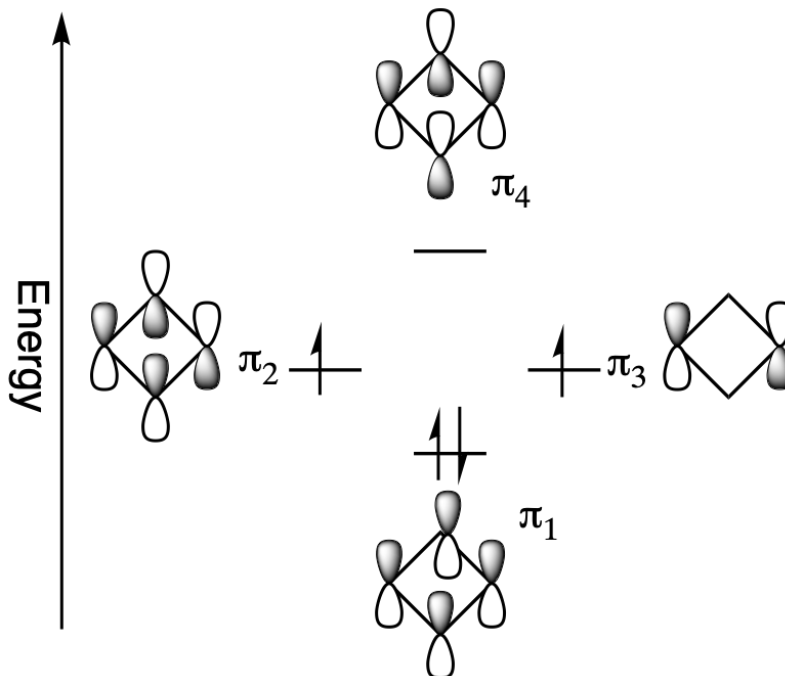


17.4: THE MOLECULAR ORBITAL PICTURE OF CYCLOBUTADIENE

MOLECULAR ORBITAL DIAGRAM FOR CYCLOBUTADIENE

Cyclobutadiene is so unstable that its physical properties have not been reliably measured. The diagram below helps explain why cyclobutadiene is very unstable. With four pi electrons, both non-bonding Molecular Orbitals are singly occupied. Cyclobutadiene is so unstable relative to cyclobutane, that it is described as "antiaromatic". This term will be further explored in the next section.



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