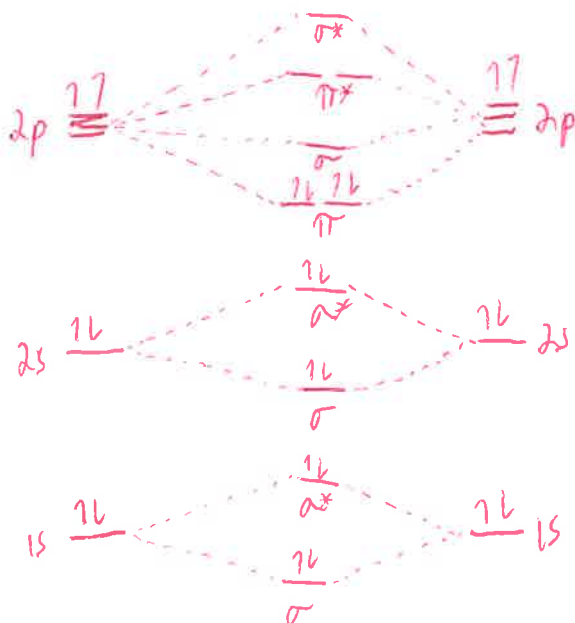


Quiz 11.4 – Molecular Orbitals

Name: Key

Problem 1 (2 points)

Draw a molecular orbital energy level diagram for a C_2 molecule

Problem 2 (2 points)

Sketch what the HOMO and LUMO look like for a C_2 moleculeHOMO ($\pi-2p$)LUMO ($\sigma-2p$)

Problem 3 (1 point)

Based on the molecular orbital diagram, is a C_2 molecule paramagnetic or diamagnetic?

Diamagnetic