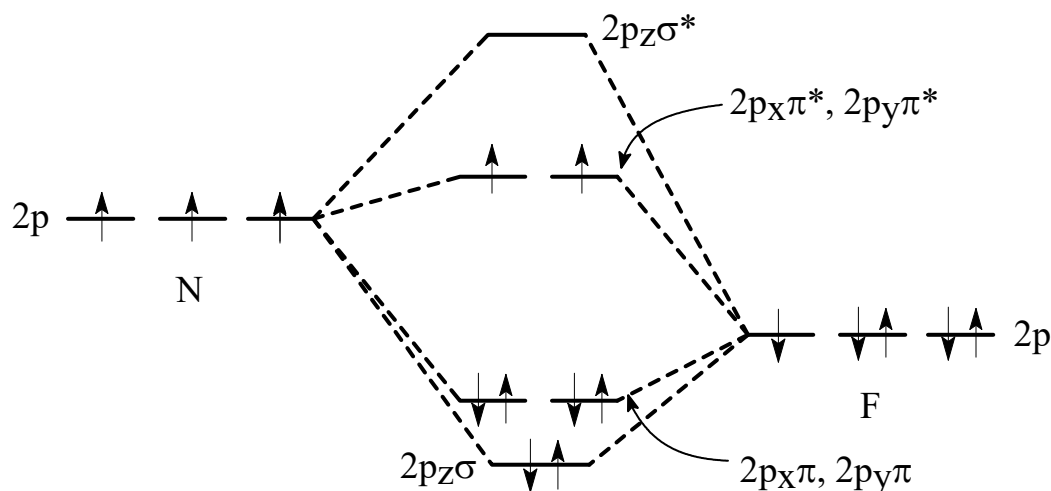


ChemE 2200 - Physical Chemistry II for Engineers

Quiz 2 - February 5, 2025

Name: Solution



Rubric: (10 total points)

+1: correct # of electrons for N

+1: correct # of electrons for F

+3: Correct assignment of electrons from N & F (fill lowest energy first) e.g.

+2: Followed Hund's Rule

+2: Bonding & antibond and sigma & pi orbitals clearly labelled

+1: Correct order of sigma & pi MO (bonding & antibonding)

→ *(-1): did not show explicitly two suborbitals for pi (2 dash lines or $p_x p_y$)