

Chem 4A Scholars Worksheet 10

MO Diagrams and Hybridization

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Questions:

1. Rank s, p, sp, sp^2 , sp^3 orbitals by their energies from lowest to highest.
2. The nitrogen atom in NH_3 is sp^3 hybridized, unlike CH_4 one of its hybridized atomic orbitals has slightly lower energy. Draw the electronic configuration of hybridized atomic orbitals.
3. Draw the lewis structure for CO_3^{2-} .

4. Draw the MO diagram for CO_3^{2-} .