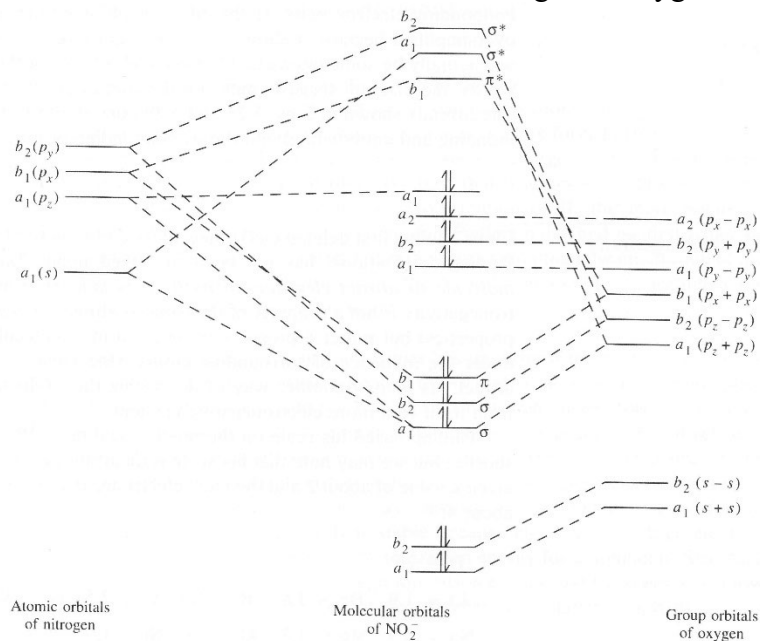


7. The NNO molecule was discussed in the book. Would its isomer NON be more or less stable than NNO and explain your answer? Why does CO₂ have the structure it does instead of COO? (10 points)

8. The MO diagram for NO₂⁻ is shown below. The HOMO is somewhat antibonding. On this basis, predict the relative bond lengths in NO₂⁺, NO₂, and NO₂⁻. Would the nonbonding pairs of electrons be more reactive on the nitrogen or oxygen atom? Explain your answer. (10 points)



Test 1 Redux

1. The electron configuration of Pb^{2+} is _____.
2. What is the point group of $\text{Cr}(\text{CO})_5(\text{PMe}_3)$? _____ of cyclopropane? _____
3. Which is more stable and why? Cr^{2+} or Ni^{2+}