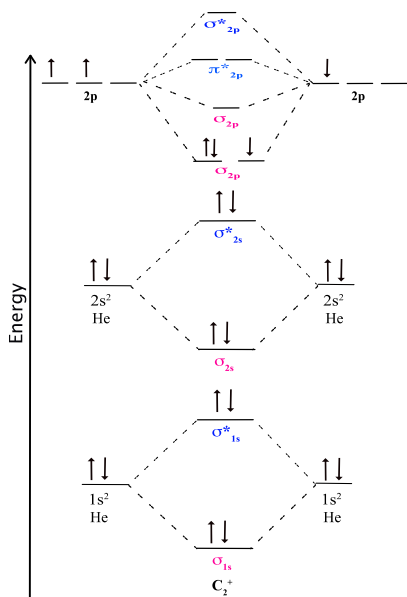


Molecular Orbital Theory

The MO diagram below is for C_2^+ . Write the MO configuration and determine the bond order. Is this bond stable? Indicate if C_2^+ is paramagnetic or diamagnetic.

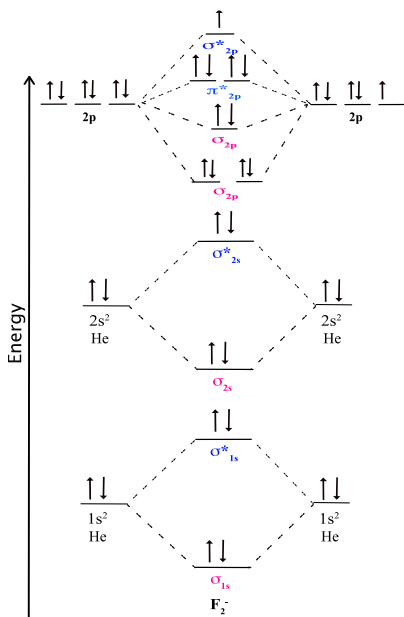


The bond order is $\frac{1}{2} (7 - 4) = 1.5$

Yes, the bond is stable.



Draw a molecular orbital diagram for F_2^- . Write the MO configuration and determine the bond order. Is this bond stable?



The bond order is $\frac{1}{2} (10 - 9) = 0.5$

No, the bond is not stable.

