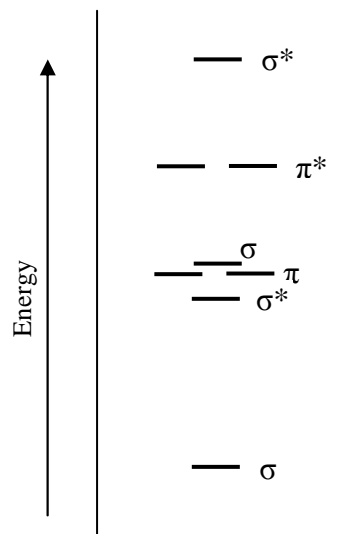


- The molecular orbital energy level diagram below is for the valence electrons of the O_2^+ ion.

Indicate the ground state electronic configuration of O_2^+ using the arrow notation for electron spins on the provided molecular orbital energy level diagram.



Marks
4

Calculate the bond order of O_2^+ .

Indicate the lowest energy electron excitation in this ion by identifying the initial and final molecular states of the electron undergoing the excitation.

THE REMAINDER OF THIS PAGE IS FOR ROUGH WORKING ONLY