

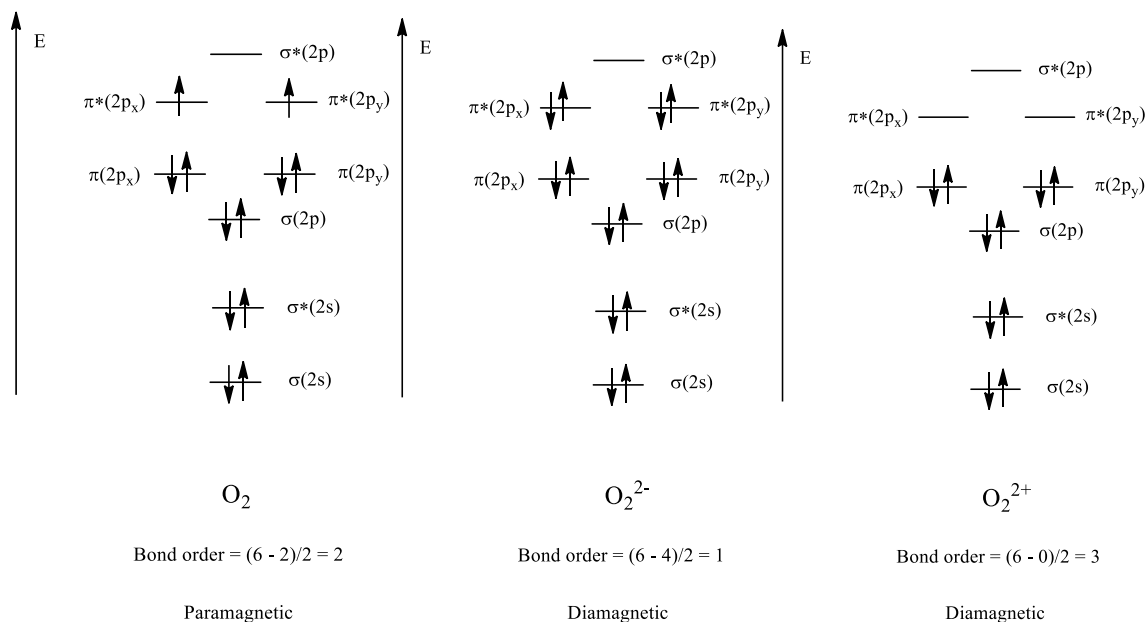
## Answer on Question #48950 – Chemistry – Inorganic Chemistry

### Question:

Determine the bond order for  $O_2$  and  $O_2^{2-}$  and indicate their magnetic behaviour.

### Answer:

According to the MO (Molecular orbital) model molecules have the following orbital diagrams:



Bond orders are defined as a half of a difference between the numbers of electrons laying on the bonding and antibonding orbitals, respectively. The appearance of unpaired electrons makes a substance paramagnetic.