

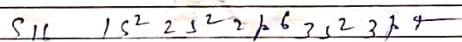
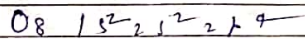
B.M.A. College BANERJ
DARBHANGA.

CHEMISTRY C. CHAUDHARY
Mobile No - 900665185

TOPIC = OXYGEN Family.

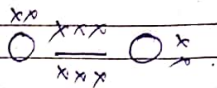
Structure of O₂ and O₃

Atomic No. of Oxygen and Sulphur are 8 and 16, their electronic configuration are written as.



Outermost orbit no. of oxygen is 2 where as outermost orbit no. of "S" is 3. Thus size of oxygen is smaller than that of "S".

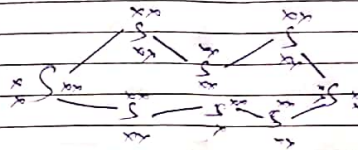
Due to smaller size double bonding is stable in O₂ which is represented as.



on the other hand

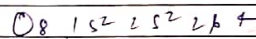
size of "S" is larger and

double bonding is not stable. "S" exists in S₈ form which is represented as.



Oxygen has lower Ionisation potential value than "N"

Atomic No. of Nitrogen is 7 where as that of oxygen is 8. N = 1s² 2s² 2p³



Valence electrons in "N" is five where as that of oxygen is six.

Both are members of different groups of the periodic table but are of same period. In a particular

period ionisation potential value increases accordingly oxygen should have

higher I.P. value than "N" but exceptionally

T.P. value of oxygen is lower than Nitrogen

Reason behind this is that after losing s²

electrons "o" get p³ stable configuration.