

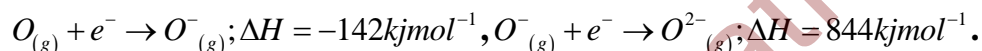
## Electron Affinity

1. The electron affinity values ( $\text{KJmol}^{-1}$ ) of three halogens X, Y and Z are respectively -349, -333 and -325. Then X, Y and Z respectively are

(M 2003)

- 1)  $\text{F}_2$ ,  $\text{Cl}_2$  and  $\text{Br}_2$       2)  $\text{Cl}_2$ ,  $\text{F}_2$  and  $\text{Br}_2$   
3)  $\text{Cl}_2$ ,  $\text{Br}_2$  and  $\text{F}_2$       4)  $\text{Br}_2$ ,  $\text{Cl}_2$  and  $\text{F}_2$

2. The formation of the oxide ion  $\text{O}^{2-}_{(g)}$  requires first an exothermic and then an endothermic step as shown below: (AIIEEE-2004)



This is because

- 1)  $\text{O}^-$  ion has comparatively larger size than oxygen atom  
2) Oxygen has high electron affinity  
3)  $\text{O}^-$  ion will tend to resist the addition of another electron  
4) Oxygen is more electronegative
3. An element "X" has IP = 1681 kJ/mole and EA = -333 kJ/mole then its electro negativity is (AIIMS)

- 1)  $\frac{1681+333}{544}$       2)  $\frac{1681+333}{129}$       3)  $\frac{1681+333}{5.6}$       4)  $\frac{1681+333}{2.8}$

4. If the E.N value of Nitrogen in the Pauling scale is 3.0, then the value in Mullikan scale will be (BHU2003)

- 1) 11.2      2) 22.4      3) 8.4      4) 3.0

**Hint-** Mullikan EN value = 2.8 X Pauling EN values

5. For electron affinity of halogens, which of the following is correct? (AIIMS 2004)
- 1) Br>F                      2) F>Cl                      3) F >I                      4) Br>Cl
6. Which of the following has highest electron affinity? (BHU 2005)
- 1) N                              2) Cl                              3) O                              4) F
7. The correct order of electro negativity of the elements of halogen family is (PMT 2008)
- 1) I > Br > F > Cl      2) Br > I > Cl > F      3) F > Cl > Br > I      4) Cl > Br > I > F
8. The correct order of decreasing electro negativity of the elements, i-Be, ii-O, iii-N and iv-Mg (PMT 2011)
- 1) ii > iii > i > iv      2) iii > iv > ii > i      3) i > ii > iii > iv      4) i > ii > iv > iii
9. Increasing order of the electro negativity of elements in the following (AFMC 2010)
- 1) C, N, Si, P                      2) N, Si, C, P                      3) Si, P, C, N                      4) P, Si, N, C
10. Which of the following is 2nd most Electro negative element? (PMT 2007)
- 1) S                              2) Cl                              3) O                              4) F

**KEY**

- 1) 2    2) 3    3) 1    4) 3    5) 3    6) 2    7) 3    8) 1    9) 3    10) 3