

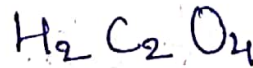
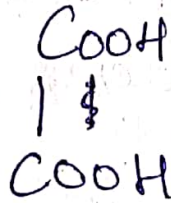
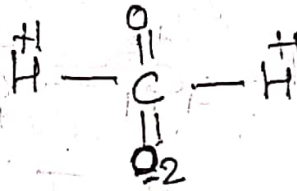
D. B. College (Jaynagar) lect-6

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Chemistry department B.Sc (sub)

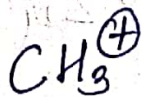
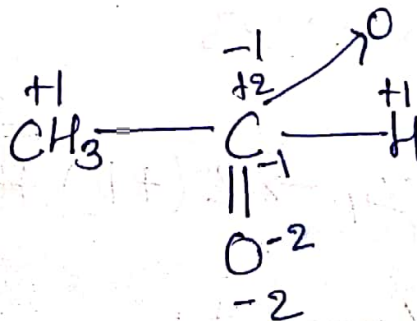
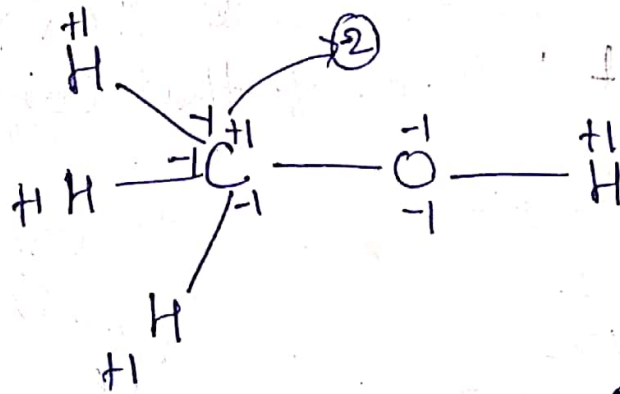
Mob:- 8790390927

Ques Find O.N. of C in oxalic acid & formaldehyde



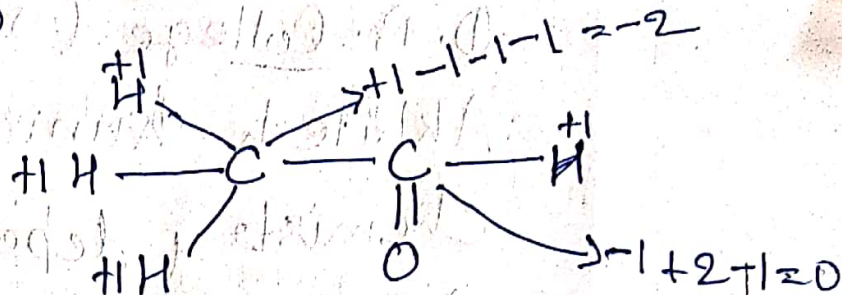
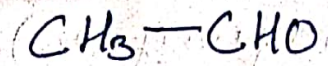
$$2(+1) + 2x + 4(-2) = 0$$

$$x = 3$$



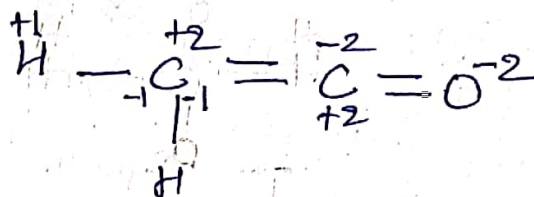
$$x + 3 = +1$$

$$x = -2$$



$$2 + 2x - 2 = 0$$
$$2x =$$

$$x = -1$$



To determine M.F. of a Compound!-
Sum of o.s. of all atoms in a molecule is zero.

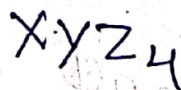
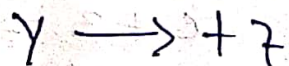
Ques.

A Compound consist of elements X, Y & Z has o.s. +1, +6 & -2 on X, Y & Z resp. then what is M.F. of that Compound.

- ① $\text{X}_2\text{Y}_2\text{Z}_7$
- ② XYZ
- ③ X_2YZ
- ④ both 1 & 3

$$\text{X}_2\text{YZ}_4 \rightarrow 2(+1) + (+6) + 4(-2) = 0$$

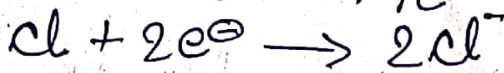
eg



To determine equivalent weight

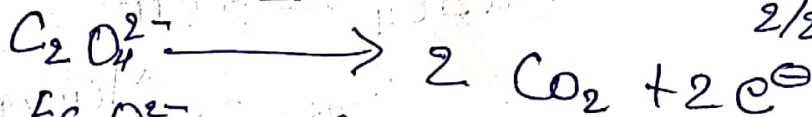
$$\text{Eq. Wt.} = \frac{\text{Mol. Wt.}}{n\text{-factor}}$$

$n\text{-factor} = \text{no. of } e^- \text{ lost or gained in mol complex}$
(O.A./R.A.)



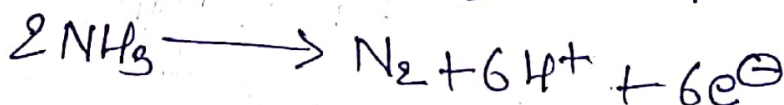
$$E_{\text{Cl}_2} = \frac{M_{\text{Cl}_2}}{2}$$

$$E_{\text{Cl}^-} = \frac{M_{\text{Cl}^-}}{2/2} = \frac{M_{\text{Cl}^-}}{1}$$



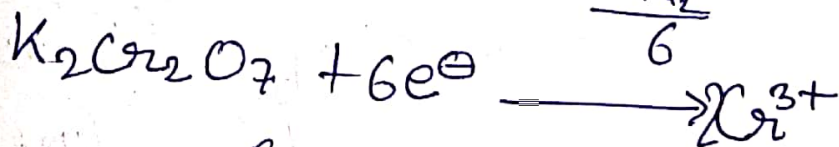
$$E_{\text{C}_2\text{O}_4^{2-}} = \frac{M_{\text{C}_2\text{O}_4^{2-}}}{2}$$

$$E_{\text{CO}_2} = \frac{M_{\text{CO}_2}}{2/2} = \frac{M_{\text{CO}_2}}{1}$$



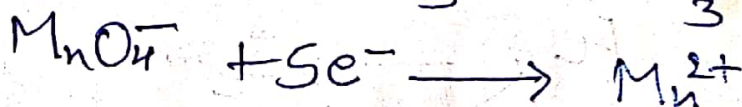
$$E_{\text{NH}_3} = \frac{M_{\text{NH}_3}}{3} = \frac{M_{\text{NH}_3}}{3}$$

$$E_{\text{N}_2} = \frac{M_{\text{N}_2}}{6}$$



$$E_{\text{K}_2\text{Cr}_2\text{O}_7} = \frac{M_{\text{K}_2\text{Cr}_2\text{O}_7}}{6}$$

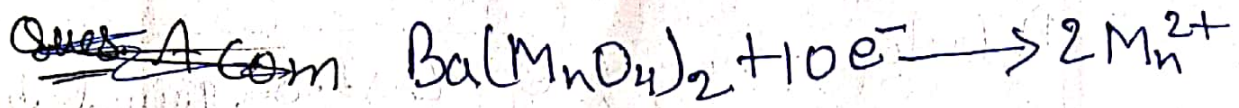
$$E_{\text{Cr}^{3+}} = \frac{M_{\text{Cr}^{3+}}}{3} = \frac{M_{\text{Cr}^{3+}}}{3}$$



$$E_{\text{MnO}_4^-} = \frac{M_{\text{MnO}_4^-}}{5}$$

$$E_{\text{Mn}^{2+}} = \frac{M_{\text{Mn}^{2+}}}{5}$$

To determine M.F. of a compound =
~~sum of o.s. of all atoms in a molecule~~
~~is zero~~



$$BaMn_2O_8 \quad E_{Ba(MnO_4)_2} = \frac{M_{Ba(MnO_4)_2}}{5}$$

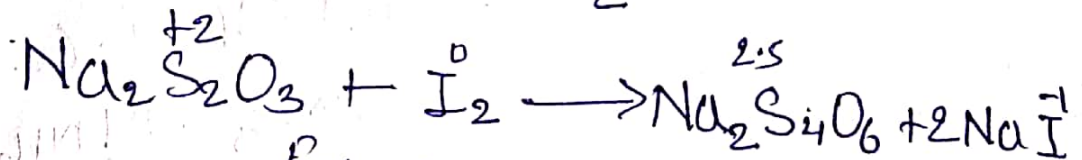
$$E_{Mn^{2+}} = \frac{M_{Mn^{2+}}}{5}$$



$$E_{CuSO_4} = \frac{M_{CuSO_4}}{1}$$



$$E_{MnO_2} = \frac{M_{MnO_2}}{2}$$

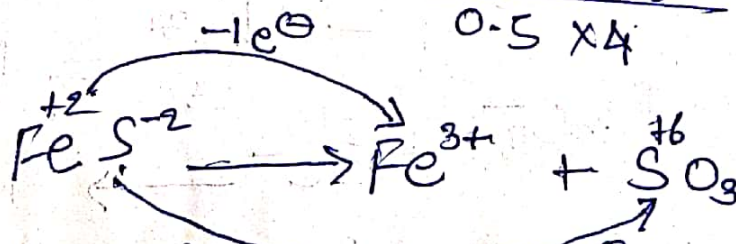


$$E_{Na_2S_2O_3} = \frac{M_{Na_2S_2O_3}}{0.5 \times 2}$$

$$E_{I_2} = \frac{M_{I_2}}{1}$$

$$E_{NaI} = \frac{M_{NaI}}{\frac{1}{2}}$$

$$E_{Na_2S_4O_6} = \frac{M_{Na_2S_4O_6}}{0.5 \times 4}$$



$$E_{FeS} = \frac{M_{FeS}}{1+8} + 8e^-$$

$$E_{SO_3} = \frac{M_{SO_3}}{8}$$

$$E_{Fe^{3+}} = \frac{M_{Fe^{3+}}}{1}$$