

A P P E N D I X - 'C'

Refer Page No. 87 in Chapter- III :

S ₁ means	Cu _{0.2}	CO _{0.8}	Fe ₂ O ₄
S ₂	Cu _{0.4}	CO _{0.6}	Fe ₂ O ₄
S ₃	Cu _{0.6}	CO _{0.4}	Fe ₂ O ₄
S ₄	Cu _{0.8}	CO _{0.2}	Fe ₂ O ₄

Refer Page No . 41 in Chapter-II

Molecular weight of pure oxides.

CuO	- 79.54 gm.
COo	- 74.93 gm.
Fe ₂ O ₄	- 158.94 gm.

①

Refer page No. 136 and 142 in chapter- IV :

Formules :

$$1) \text{ X-ray Density} = \frac{8M}{Na_3}$$

where ;

M = Molecular weight in gms.

N - Avagadro's Number

$$6.022 \times 10^{23} \text{ mole/gm.}$$

a - Lattice constant.

Refer Page No.41 in Chapter- II :

TABLE NO. A

D) MOLECULAR WEIGHTS AS DIFFERENT COMPOSITIONS IN GRAMS.

(Reduced to 14 times)

X	CuO	CoO (in gm.)	Fe ₂ O ₃ (in gm.)
0.2	0.397	1.49	3.973
0.4	0.795	1.124	3.973
0.6	1.193	0.749	3.973
0.8	1.590	0.374	3.973
1.0	1.988	--	3.973
0.0	--	1.100	3.973

Refere page No. 41 in Chapter- II :

E) TABLE No. B

Sr.No.	Samples	Volume.
1.	Cu _{0.2} CO _{0.3} Fe ₂ O ₄	0.343
2.	Cu _{0.4} CO _{0.6} Fe ₂ O ₄	0.573
3.	Cu _{0.6} CO _{0.4} Fe ₂ O ₄	0.399
4.	Cu _{0.8} CO _{0.2} Fe ₂ O ₄	0.285

Refer page No. 41 in chapter- II

F) TABLE NO. C

Temperature	Sample	Mass of sample (in gm.)	Density of sample (in gm./Cm ³)
Slow cooled.	S ₁	0.590	2.61
	S ₂	1.563	3.30
	S ₃	1.53	3.50
	S ₄	0.815	3.49
Quenched at 600°C	S ₁	0.921	3.00
	S ₂	0.590	3.2
	S ₃	0.802	3.5
	S ₄	0.820	3.49
Quenched at 800°C	S ₁	0.743	3.25
	S ₂	0.859	3.4
	S ₃	0.890	3.5
	S ₄	0.970	3.5

Fig . 3.3 to 3.10 on Page No. 88 to 95 :

Temperature for 1st Break of slow cooled and
quenched 800 °C Temp.

Sample -----	Slow cooled T in (K) -----	800°C quenched T in (K) -----
1. $\text{Cu}_{0.2}\text{CO}_{0.8}\text{Fe}_2\text{O}_4$	454	500
2. $\text{Cu}_{0.4}\text{CO}_{0.6}\text{Fe}_2\text{O}_4$	467	525
3. $\text{Cu}_{0.6}\text{CO}_{0.4}\text{Fe}_2\text{O}_4$	500	555
4. $\text{Cu}_{0.8}\text{CO}_{0.2}\text{Fe}_2\text{O}_4$	525	565
