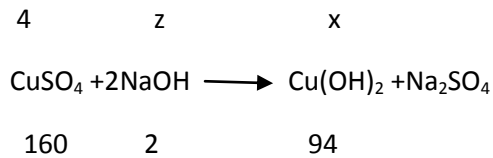
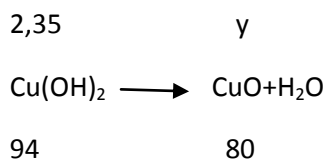


Pb1 Se trateaza 4g CuSO_4 cu o sol. de NaOH . Precipitatul format se usuca si apoi se calcineaza. Se cere: a) Calculeaza cantitatea de oxid obtinuta. b) determinati volumul solutiei de NaOH care contine 3 moli $\text{NaOH}/1\text{litru}$ de solutie.

a.



$$x = \frac{94 \cdot 4}{160} = 2,35\text{gCu(OH)}_2$$



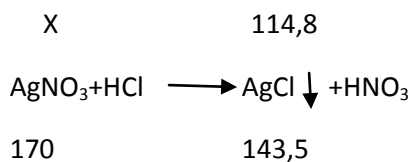
$$y = \frac{2,35 \cdot 80}{94} = 2\text{gCuO}$$

b. $z = \frac{4 \cdot 2}{160} = 0,05\text{moliNaOH}$

$$C_m = \frac{n}{V_s} \iff V_s = \frac{n}{C_m} = 0,0166\text{L} = 16,66\text{ml}$$

Pb2

240g AgNO_3 si BaNO_3 se trateaza cu o sol. de HCl de $c=20\%$ si densitatea de $1,1\text{g/ml}$ rezultand $114,8\text{g}$ precipitant alb branzos. Se cere: 1) compozitia procentuala masica a amestecului de saruri. 2)volumul de HCl utilizat.



$$X = \frac{170 \cdot 114,8}{143,5} = 136\text{gAgNO}_3$$

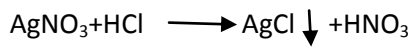
$$240 - 136 = 104\text{g BaNO}_3$$

240 g amestec.....136g AgNO₃.....104g BaNO₃

100 g amestec.....p₁.....p₂

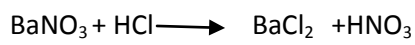
$$p_1 = \frac{100 \cdot 136}{240} = 56,66\% \quad p_2 = 43,33\%$$

136 y



170 36,5 143,5

104 z



199 36,5

$$y = \frac{136 \cdot 36,5}{170} = 29,2 \text{g HCl din prima reactie}$$

$$z = \frac{104 \cdot 36,5}{199} = 19 \text{g HCl utilizat in reactia II}$$

$$29,2 + 19 = 48,2 \text{ g HCl} \quad m_s = \frac{m_d}{c} \cdot 100 = 241 \text{g HCl}$$

$$\rho = \frac{m_s}{V_s} \Leftrightarrow V_s = \frac{m_s}{\rho} = 219 \text{ml}$$