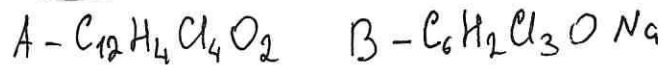


N 1.2.



$\omega(A) = 84\%$ $\omega(B) = 16\%$

$\Sigma m = 300 \text{ г}$

$m(A) = 300 \cdot 0,84 = 252 \text{ г}$

$m(B) = 300 \cdot 0,16 = 48 \text{ г}$

$\omega(C)_{\text{A}} = \frac{12 \cdot 12}{12 \cdot 12 + 4 + 35,5 \cdot 4 + 16 \cdot 2} = 0,4472$

$\omega(C)_{\text{B}} = \frac{12 \cdot 6}{12 \cdot 6 + 2 \cdot 1 + 35,5 \cdot 3 + 16 + 23} = 0,3280$

$m(C)_{\text{A}} = 0,4472 \cdot 252 = 112,6944 \text{ г}$

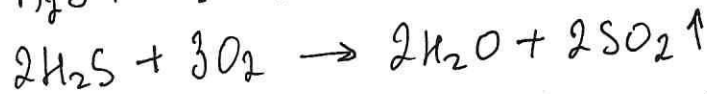
$m(C)_{\text{B}} = 0,328 \cdot 48 = 15,744 \text{ г}$

$\Sigma m(C) = 112,6944 + 15,744 = 128,4384 \text{ г}$

$\Sigma \omega(C) = \frac{128,4384}{300} = 0,4281 (42,81\%)$

Ответ: 0,4281 (42,81%)

N 6.2



A	B	C	D	E
H_2S	SO_2	$BaSO_3$	$BaBr_2$	$BaSO_4$



№4.2.



Пусть $\nu(\text{H}_2\text{XO}_4) = x$ моль

Тогда $\nu(\text{K}_2\text{XO}_4) = x$ моль

$$\Delta M = 78 - 2 = 76$$

$$M(\text{H}_2\text{XO}_4) = \frac{m}{\nu} = \frac{32,4}{x}$$

$$M(\text{K}_2\text{XO}_4) = \frac{m}{\nu} = \frac{47,6}{x}$$

$$\frac{47,6}{x} - \frac{32,4}{x} = 76$$

$$\frac{15,2}{x} = 76$$

$$76x = 15,2$$

$$x = 0,2 \text{ моль}$$

$$M(\text{H}_2\text{XO}_4) = \frac{32,4}{0,2} = 162$$

$$M(X) = 162 - 2 - 16 \cdot 4 = 96 \text{ (Mo)}$$



1	2	3	4	5	6	7	8	9	10
4	x	x	7	10	12	x	10	6	x
2				28					



$$\nu(\text{MoO}_3) = \frac{m}{M} = \frac{28,8}{144} = 0,2 \text{ моль}$$

$$\nu(\text{HI}) = 0,2 \cdot 6 = 1,2 \text{ моль}$$

$$m(\text{HI}) = 1,2 \cdot 128 = 153,6 \text{ г}$$

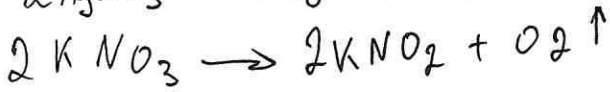
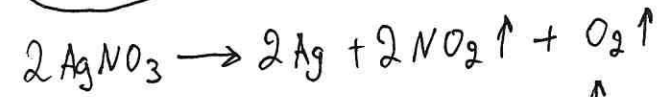
7 full

Ответ: H_2MoO_4 ; $m(\text{HI}) = 153,6 \text{ г}$

$\Sigma = 45$



N 5. 2.



Пусть массы = 100г

Пусть $w(\text{AgNO}_3) = x$

Пусть $w(\text{KNO}_3) = y$

Тогда $m(\text{AgNO}_3) = 100x$; $m(\text{KNO}_3) = 100y$; Тогда $\begin{cases} w(\text{AgNO}_3) = \frac{m}{M} = 0,5882x \\ w(\text{KNO}_3) = \frac{m}{M} = 0,99y \end{cases}$

Тогда: $\sqrt{(\text{NO}_2)} = 0,5882x$

$\sqrt{(\text{O}_2)} = 0,2941x$

$\sqrt{(\text{O}_2)} = 0,495y$

Массы = $19,5 \cdot 2 = 39$

10

$$\frac{0,5882x \cdot 46 + 0,2941x \cdot 32 + 0,495y \cdot 32}{0,5882x + 0,2941x + 0,495y} = 39$$

$$x + y = 1$$

$$\begin{cases} \frac{36,4684x + 15,84y}{0,8823x + 0,495y} = 39 \\ y = 1 - x \end{cases}$$

$$39(0,8823x + 0,495(1-x)) = 36,4684x + 15,84(1-x)$$

$$\begin{aligned} 39(0,8823x + 0,495 - 0,495x) &= 36,4684x + 15,84 - 15,84x \\ 34,4097x + 19,305 - 19,305x &= 36,4684x + 15,84 - 15,84x \\ 34,4097x - 19,305x + 15,84x - 36,4684x &= 15,84 - 19,305 \end{aligned}$$

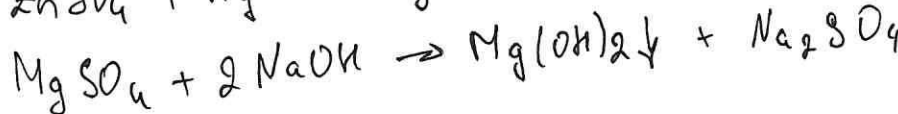
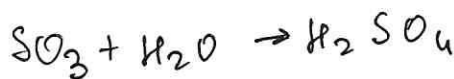
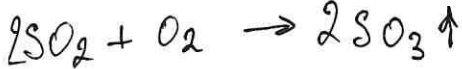
$$5,5297x = 3,465$$

$$x = 0,6273 \text{ (62,73\%)}$$

Ответ: 62,73% (0,6273)



№9.2



нет урн
65

• Me_tSO_4

$$M(\text{SO}_4) = 96$$

$$M(\text{MeSO}_4) = 96 \cdot 1,427 = 136,992$$

$$M(\text{Me}) = 137 \text{ (Ba)}$$

№8.2

Пусть x моль - NH_3

Пусть y моль - CO

Т.к. избыток газа = мольн. доле \Rightarrow мольн. доле $\text{NH}_3 = 0,8$
мольн. доле $\text{CO} = 0,2$

$$17x + 28y = 79,2$$

$$\frac{x}{x+y} = 0,8$$

$$x = 4y$$

$$x = 0,8(x+y)$$

$$x = 0$$

$$17 \cdot 4y + 28y = 79,2$$

$$68y + 28y = 79,2$$

$$96y = 79,2$$

$$y = 0,825 \text{ моль}$$

$$x = 3,3 \text{ моль}$$

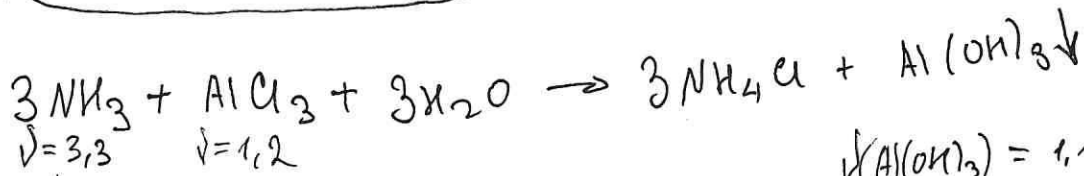
$$m(\text{AlCl}_3) = 1068 \cdot 0,15 = 160,2 \text{ г}$$

$$v(\text{AlCl}_3) = \frac{160,2}{133,5} = 1,2 \text{ моль}$$

Продолжение на листе 5



№ 9.2. продолжение



$$\nu = 3,3 \quad \nu = 1,2$$

↳ недостаток

$$\nu(\text{NH}_4\text{Cl}) = 3,3 \text{ моль}$$

$$m(\text{NH}_4\text{Cl}) = 53,5 \cdot 3,3 = 176,55 \text{ г}$$

$$\nu(\text{AlCl}_3)_{\text{ост}} = 0,1 \text{ моль}$$

$$m(\text{AlCl}_3)_{\text{ост}} = 0,1 \cdot 133,5 = 13,35 \text{ г}$$

$$m_{\text{р-ра}} = 1068 + 3,3 \cdot 17 - 85,8 \text{ г} = 1038,3 \text{ г}$$

$$\omega(\text{NH}_4\text{Cl}) = \frac{176,55}{1038,3} = 17\%$$

$$\omega(\text{AlCl}_3) = \frac{13,35}{1038,3} = 0,013 (1,3\%)$$

Ю.

Ответ: $\omega(\text{NH}_4\text{Cl}) = 17\% (0,17)$; $\omega(\text{AlCl}_3) = 0,013 (1,3\%)$

