

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

50
Авг

Задача 1.1.

$$w(\text{Cl})_{\text{A}} = \frac{35,5 \cdot 4}{12 \cdot 12 + 4 + 35,5 \cdot 4 + 32} \cdot 100\% = 44,1\%$$

$$m(\text{A}) \text{ в смеси} = 0,7 \cdot 100 = 70 \text{ г} \quad +$$

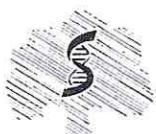
$$m(\text{Cl}) = 0,441 \cdot 70 = 30,87 \text{ г}$$

$$w(\text{Cl})_{\text{B}} = \frac{35,5 \cdot 3}{12 \cdot 6 + 2 + 35,5 \cdot 3 + 16 + 23} \cdot 100\% = 48,52\%$$

$$m(\text{B}) \text{ в смеси} = 0,28 \cdot 100 = 28 \text{ г} \quad +$$

$$m(\text{Cl}) = 0,4852 \cdot 28 = 13,5856 \text{ г}$$

$$\sum m(\text{Cl}) = 13,5856 \text{ г} + 30,87 \text{ г} = 44,4556 \text{ г}$$



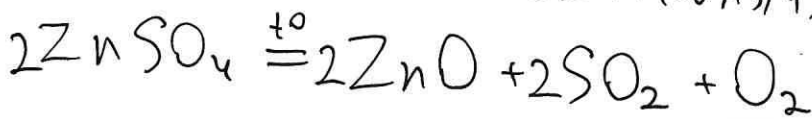
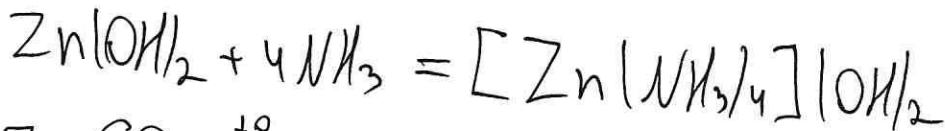
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9 X O 5 5

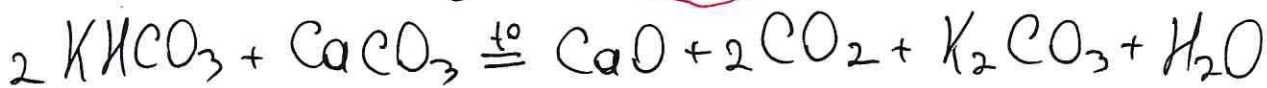
$$w(\text{Cl}) \text{ в смеси} = \frac{44,4556}{1000} \cdot 100\% =$$

$$= 44,4556\% \quad +$$

Задача 2.1



Задача 3.1



$$100 \cdot 2x + 100x = 250$$

$$300x = 250 \quad x = \frac{5}{6}$$

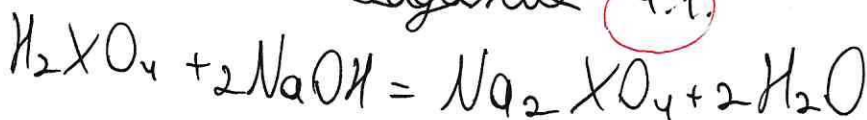
$$m(\text{CaO}) = \frac{5 \cdot 56}{6} = 46,667 \text{ г}$$

$$m(\text{CaO} + \text{K}_2\text{CO}_3) = 46,667 + 115 =$$

$$= 161,667 \text{ г}$$

$$m(\text{K}_2\text{CO}_3) = \frac{138 \cdot 5}{6} = 115 \text{ г}$$

Задача 4.1



$$m(\text{Na}_2\text{XO}_4) = 16,2 - 2x + 23 \cdot 2x = 20,6$$

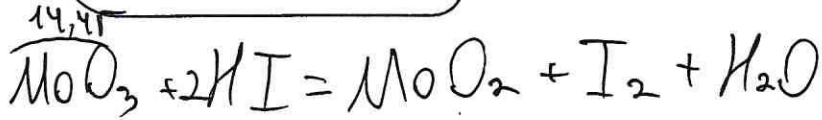
$$16,2 + 44x = 20,6 \quad 44x = 4,4 \quad x = 0,1$$

$$M(\text{H}_2\text{XO}_4) = \frac{16,2}{0,1} = 162 \frac{\text{г}}{\text{моль}} - \text{H}_2\text{MoO}_4$$



Кислота - H_2MoO_4

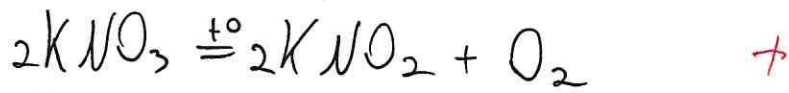
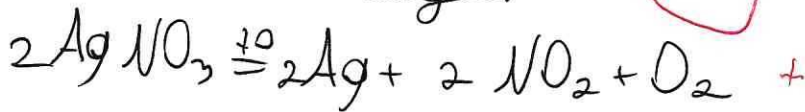
7,5



$$\nu(\text{MoO}_3) = \frac{14,4\Gamma}{144} = 0,1 \text{ моль} \quad \nu(\text{HI}) = 0,1 \cdot 2 = 0,2 \text{ моль}$$

$$m(\text{HI}) = 0,2 \cdot 128 = 25,6\Gamma$$

Задача 5.1.



$$M_{\text{см. (смеси)}} = \frac{4 \cdot 10}{\text{моль}} = 40 \frac{\Gamma}{\text{моль}}$$

$$46 \varphi_1 + 32(1 - \varphi_1) = 40$$

$$46 \varphi_1 + 32 - 32 \varphi_1 = 40$$

$$14 \varphi_1 = 8$$

$$\varphi_1 = 0,57143 (\text{NO}_2)$$

$$\varphi_2 = 1 - 0,57143 = 0,42857 (\text{O}_2)$$

Для газов: $\varphi = x$

$$\text{Пусть } \nu(\text{NO}_2) = 0,57143 \quad \nu(\text{NO}_2) = \nu(\text{AgNO}_3) = 0,57143 \text{ моль}$$

$$\nu(\text{O}_2)_{(\text{AgNO}_3)} = \frac{0,57143}{2} = 0,285715$$

$$\nu(\text{O}_2)_{(\text{KNO}_2)} = 0,42857 - 0,285715 = 0,142855 \text{ моль}$$

$$\nu(\text{KNO}_2) = 0,142855 \cdot 2 = 0,28571 \text{ моль}$$

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$$m(\text{AgNO}_3) = 0,57143 \cdot 170 = 97,1431\Gamma$$

$$m(\text{KNO}_2) = 0,28571 \cdot 85 = 24,28535\Gamma$$

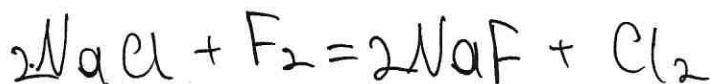
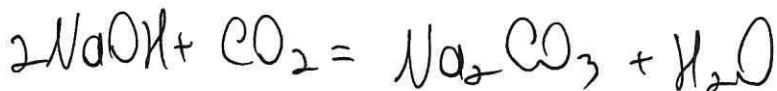
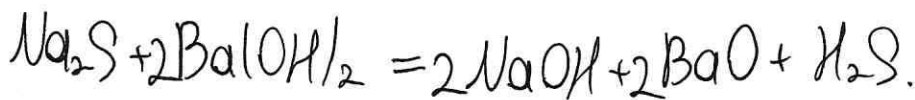
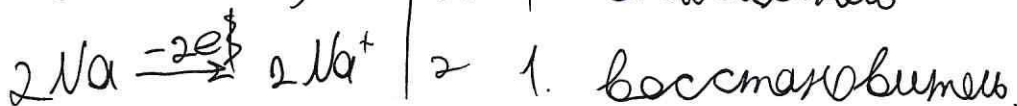
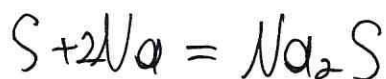
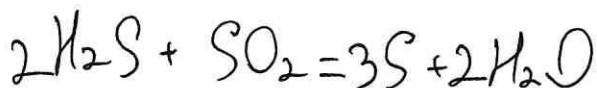
$$m(\text{смесь}) = 97,1431 + 24,28535 = 121,42845\Gamma$$

$$w(\text{AgNO}_3) = \frac{97,1431}{121,42845} \cdot 100\% = 80\%$$

Задача 9.1.

"X" - H_2S "Б" - Na_2S "Г" - NaCl

"А" - S "В" - Na_2SO_4 Na_2CO_3



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Задача 8.1.

$$17 \cdot 3x + 28x = 55,3 \quad x = 0,7 \text{ моль (CO)}$$

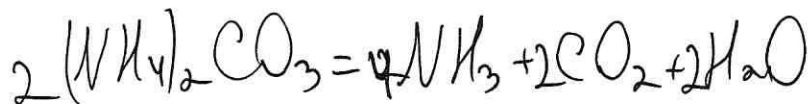
$$79x = 55,3$$

$$0,7 \cdot 3 = 2,1 \text{ моль (NH}_3\text{)}$$

$$\sqrt{AlCl_3} = \frac{890 \cdot 0,12}{133,5} = 0,8 \text{ моль} + \textcircled{2}$$

Задача 10.1.

Смесь: KNO_2 $2(NH_4)_2CO_3$



Старый объём: $8 \cdot 22,4 = 179,2 \text{ л}$.

Новый: $4 \cdot 22,4 = 89,6 \text{ л}$

$$\frac{179,2}{89,6} = 2 \text{ раза} \quad \text{объём уменьшился в 2 раза}$$

Задача 6.1.

