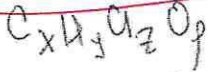


Задача №1.1



$$y = z = 2p = \frac{1}{3}x$$

$$y + y + 0,5y + 3y = 22$$

$$5,5y = 22$$

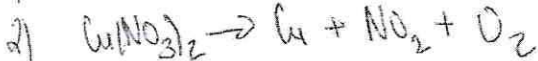
$$y = 4$$



+ 8

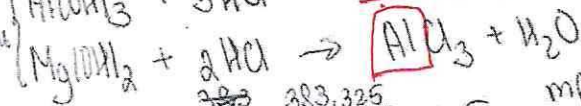
УУ

Задача 2.1



+ 9

Задача 3.1



$$n(HCl) = \frac{383,325}{36,5} = 10,5$$

$$m_{в.в. HCl} = 3193,75 - 0,72 = 3193,03$$

Пусть  $x - n(Al(OH)_3)$ ,  $y - n(Mg(OH)_2)$ , тогда

$$\begin{cases} 78x + 58y = 282 \\ x + y = 4,2 \end{cases}$$

$$78x + 56(4,2 - x) = 282$$

$$20x = 38,4 \quad | : 20$$

$$x = 1,92$$

$$y = 2,28$$

$$w(Al(OH)_3) = \frac{149,76 \cdot 100\%}{282} = 53,1\%$$

$$w(Mg(OH)_2) = \frac{132,24 \cdot 100\%}{282} = 46,9\%$$

$$m(Al(OH)_3) = 1,92 \cdot 78 = 149,76$$

$$m(Mg(OH)_2) = 2,28 \cdot 58 = 132,24$$

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

УУ

Σ 380 ред



СЕЧЕНОВСКИЙ  
УНИВЕРСИТЕТ

8 X 0 9 5

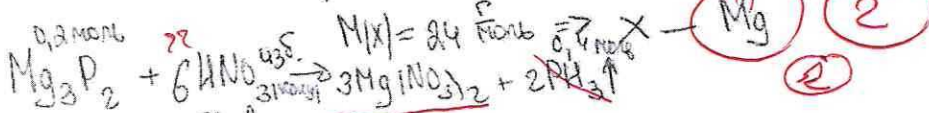
Задача 6.1.



$$1,5952 \cdot (M(X) + 60) = 3M(X) + 62$$

$$1,5952M(X) + 95,712 = 3M(X) + 62$$

$$33,712 = 1,4048M(X) \quad | : 1,4048$$

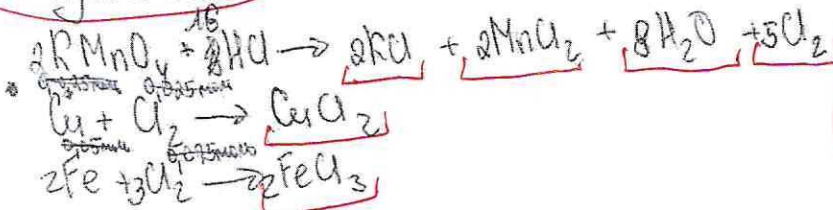


$n(Mg_3P_2) = \frac{26,8}{134} = 0,2$  моль

$n(PH_3) = 0,4$  моль

$m(PH_3) = 0,4 \cdot 34 = 13,6$  г

Задача 8.1.



$n(KMnO_4) = \frac{6,39}{158} = 0,04$  моль

$n(Cl_2) = 0,1$  моль  $\left( \begin{matrix} 2 \\ 2 \end{matrix} \right)$

$m(Cu) = 64 \cdot 0,05 = 3,2$  г

$m(Fe) = 56 \cdot 0,05 = 2,8$  г

$w(Cu) = \frac{3,2 \cdot 100\%}{6} = 53,3\%$



Задача 9.1

- 1)  $P_4 + 6Ca(OH)_2 \rightarrow 4PH_3 + 6CaO + 3O_2$  + -
- 2)  $5PH_3 + 8HNO_3 \rightarrow 5H_3PO_4 + 4N_2 + 4H_2O$  + -
- 3)  $2H_3PO_4 + 3Ca(OH)_2 \rightarrow Ca_3(PO_4)_2 + 6H_2O$  -
- 4)  $2Ca_3(PO_4)_2 + 5C + SiO_2 \rightarrow 3CaSiO_3 + 5CaCO_3 + 4P$
- 5)  $Ca + P \rightarrow Ca_3P_2$  2

4

Задача 10.1

$$w(X) = \frac{20,8 \cdot 100}{30,4} = 68,421\% \quad w(O) = 100\% - 68,421\% = 31,579\%$$

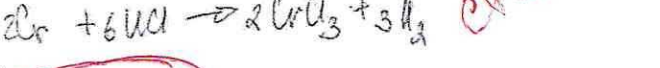
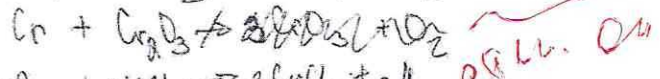
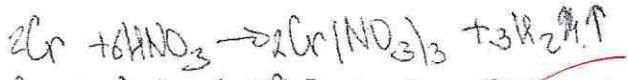
$$2:3 = \frac{68,421}{M(X)} \cdot \frac{31,579}{16}$$

$$\frac{2}{3} = \frac{1096,236}{31,579M(X)}$$

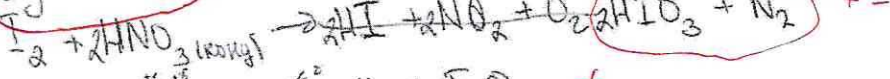
$$3284,208 = 63,158M(X)$$

$$M(X) \approx 52 \Rightarrow X - Cr$$

6



Задача 17.1



3

