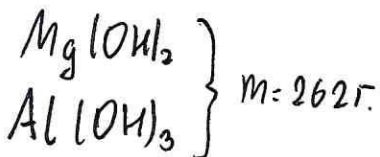


Задача 3.2.



$$m(\text{HCl}_{15\%}) = 231,67 \text{ г.}$$

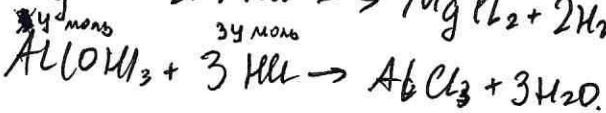
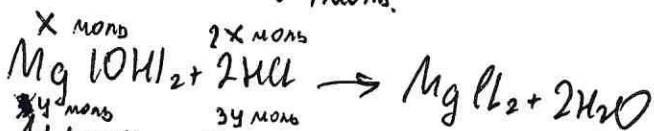
$$m(\text{HCl}_{\text{к}}) = 231,67 \text{ г.} \cdot 0,15 = 34,75 \text{ г.}$$

$$n(\text{HCl}_{\text{к}}) = \frac{34,75 \text{ г.}}{36,5 \text{ г/моль}} = 0,95 \text{ моль}$$

$$n(\text{HCl}) = 0,95 \text{ моль}$$

$$n(\text{Mg(OH)}_2) = 0,475 \text{ моль}$$

$$n(\text{Al(OH)}_3) = 0,475 \text{ моль}$$



можно составить систему ур-ий:

$$\begin{cases} 2x + 3y = 0,95 \\ 58,3x + 78y = 262 \end{cases} \text{ решая, получаем: } \begin{cases} x = 0,475 \\ y = 0,475 \end{cases}$$

$$m(\text{Mg(OH)}_2) = 0,475 \text{ моль} \cdot 58,3 \text{ г/моль} = 27,67 \text{ г.}$$

$$m(\text{Al(OH)}_3) = 0,475 \text{ моль} \cdot 78 \text{ г/моль} = 37,05 \text{ г.}$$

$$m(\text{Mg(OH)}_2) = 27,67 \text{ г.}$$

$$\omega(\text{Mg(OH)}_2) = \frac{27,67 \text{ г.}}{262 \text{ г.}} \cdot 100\% = 10,56\%$$

$$\omega(\text{Al(OH)}_3) = \frac{37,05 \text{ г.}}{262 \text{ г.}} \cdot 100\% = 14,14\%$$

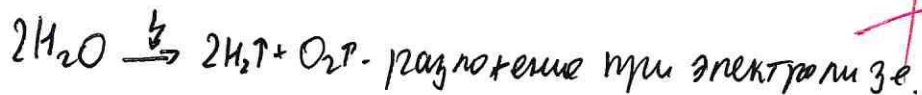
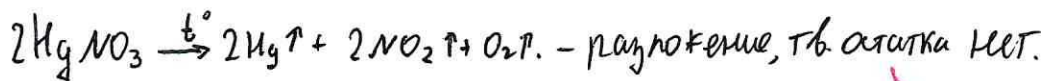
Ответ: $\omega(\text{Mg(OH)}_2) = 10,56\%$; $\omega(\text{Al(OH)}_3) = 14,14\%$.



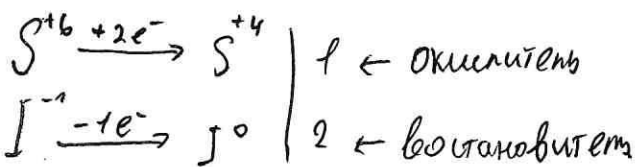
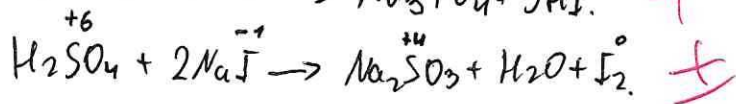
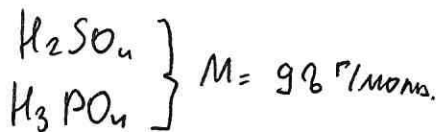
СЕЧЕНОВСКИЙ
УНИВЕРСИТЕТ



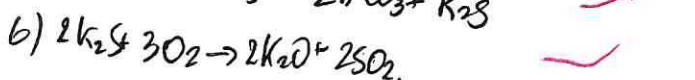
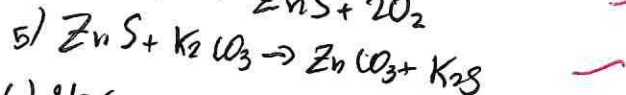
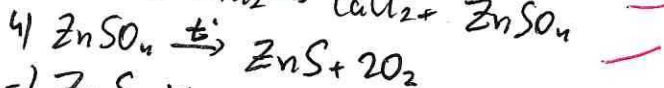
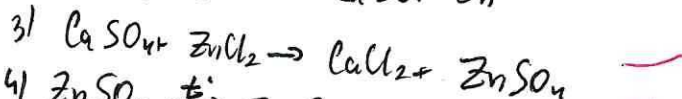
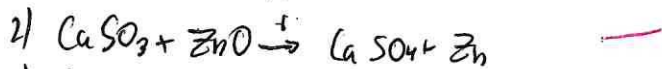
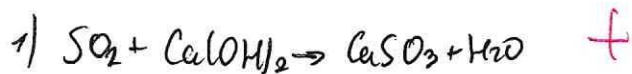
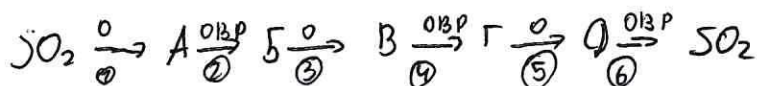
Задача 2.2.



Задача 4.2



Задача 5.2



Задача 6.2

$$M(XSO_4) = (96 + X)$$

$$M(X_3P_2) = (62 + 3X)$$

поэтому, можно составить ур-ие:

$$\frac{62 + 3X}{96 + X} = 1,1167$$

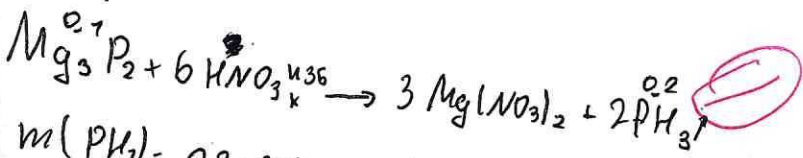
$$1,8833X = 45,2032$$

$$X = 24$$

X = Mg

MgSO₄

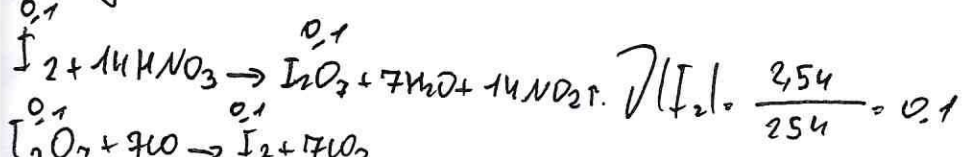
M₃P₂



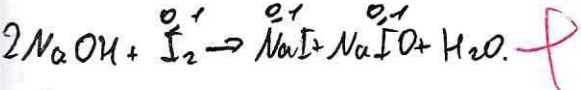
$$m(PH_3) = 0,2 \cdot 34 \text{ г/моль} = 6,8 \text{ г.}$$

Ответ: m = 6,8 г.

Задача 7.2



$$\sqrt{I_2} \cdot \frac{254}{254} = 0,1$$



$$m(NaI) = 0,1 \text{ моль} \cdot 150 = 15$$

$$m(NaIO_3) = 0,1 \text{ моль} \cdot 166 = 16,6$$

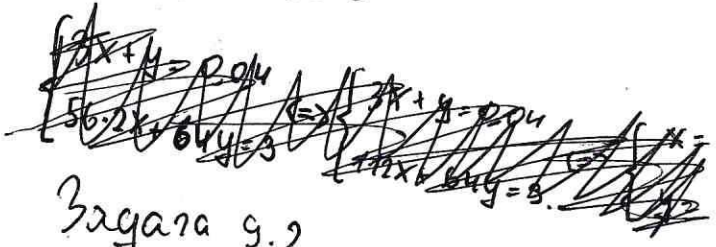
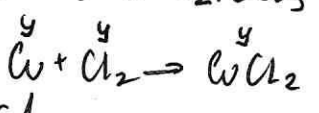
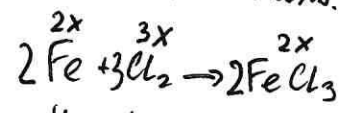
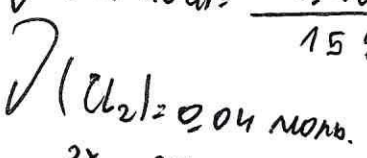
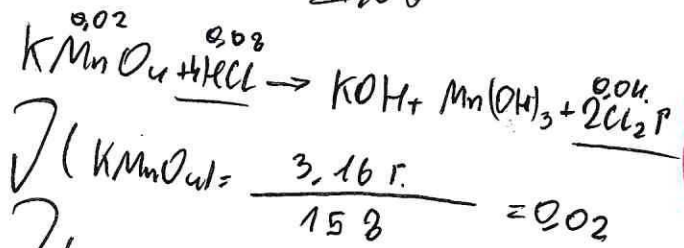
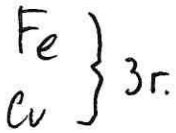
Ответ: m(NaI) = 15 г; m(NaIO₃) = 16,6 г.

Handwritten scribbles in red ink.

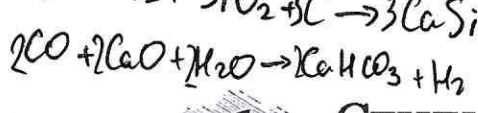
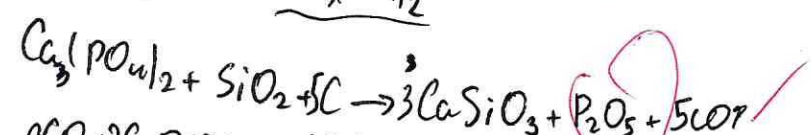
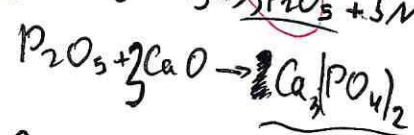
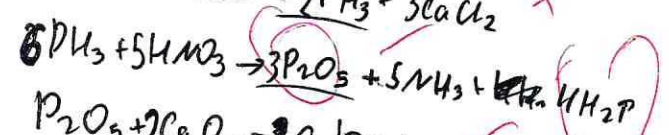
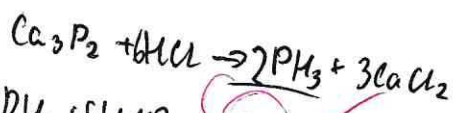
1	0
2	10
3	10
4	11
5	2
6	4
7	10
8	4
9	4
10	0



Задача 8.2.



Задача 9.2.



□ □ □ □ □

Задача 10.2

~~В стандартном состоянии Ti имеет валентность 3-x~~

~~0,0625 0,03125~~

$$4Ti + 3O_2 \rightarrow 2Ti_2O_3$$

$$N(Ti) = \frac{3F}{4e} = 0,0625$$

$$m(Ti_2O_3) = 0,03125 \text{ моль}$$

Задача 1.2

$$N(O) = \frac{N(C)}{6} = \frac{N(H) + N(C)}{4}$$

$$N(O) + N(C) + N(H) + N(U) = 22$$

