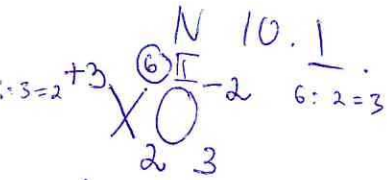


37

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

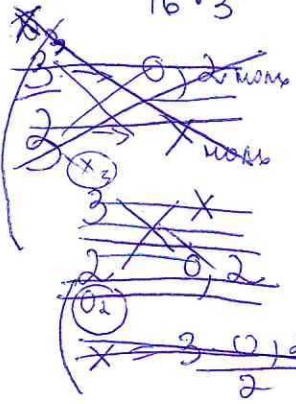


$m(x) = 20,8 \text{ z.}$

$m(x \cdot O) = 30,4 \text{ z.}$

$\Rightarrow m(O) = m(x \cdot O) - m(x) = 30,4 - 20,8 = 9,6 \text{ (z)}$

$n(O_2) = \frac{9,6}{16 \cdot 3} = \frac{9,6}{48} = 0,2 \text{ моле.}$



предположим, что
 проверка: $M = 28 \cdot 2 = 54$.
 \Rightarrow степень окисления $m =$

$M_e = Al$, тогда
 имеет валентность = III
 тогда = III (+3).



СЕЧЕНОВСКИЙ
 УНИВЕРСИТЕТ

8 X O P 5

$$\frac{n}{M} \Rightarrow M = \frac{n}{0,3} = \frac{20,8}{0,3} = 69,3 \text{ г/моль} \Rightarrow \text{Al}$$

$$\frac{54}{2} = 27 \Rightarrow \text{me Al.}$$

2 Ответ: Al.



N 1.1.



обозначим кол-во ат. O - за x

кол-во ат. Cl и H - за 2x т.к. они относятся 1:1

кол-во ат C - за 6x.

составим, решим ур-е:

$$6x + 2x + 2x + x = 22$$

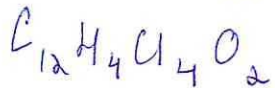
$$11x = 22$$

$$x = \frac{22}{11}$$

$$x = 2 \text{ - ат. O}$$

$$2 \cdot 2 = 4 \text{ - ат. H = Cl}$$

$$2 \cdot 6 = 12 \text{ - ат C.}$$

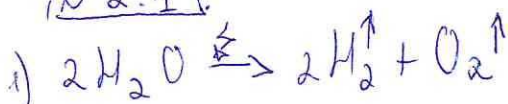


+

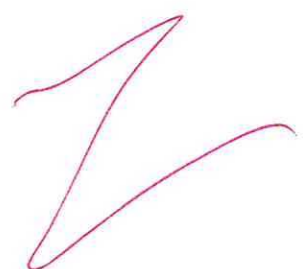
Ответ: $C_{12} H_4 Cl_4 O_2$.



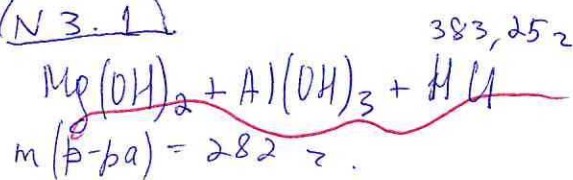
№ 2.1



2)



№ 3.1



$\omega = \frac{m(\text{вещь})}{m(\text{р-ра})}$

$n = \frac{383,25}{1+35,5} = \frac{383,25}{26,5} = 10,5 \text{ моль}$

$m(\text{Al}(\text{OH})_3) = n \cdot M = 10,5(27 + 16 \cdot 3 + 1 \cdot 3) = 819 \text{ г}$

$\omega = \frac{819}{282} = 2,904$

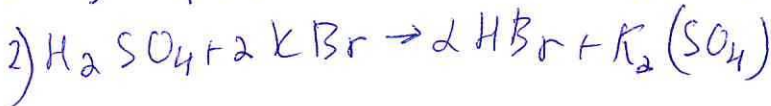
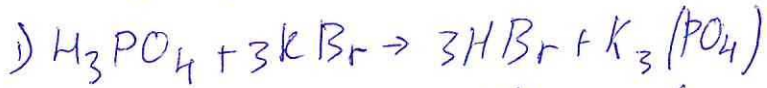
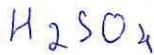
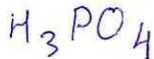
$m(\text{Mg}(\text{OH})_2) = n \cdot M = 10,5(24 + 16 \cdot 2 + 1 \cdot 2) = 609 \text{ г}$

$\omega = \frac{609}{282} = 2,159$

Ответ: 2,904 ; 2,159



N 4.1



+

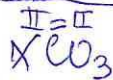
N 5.1



Ответ: SO_2

решение?

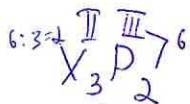
N 6.1



$M = X$

$X = Mg$

проверка:



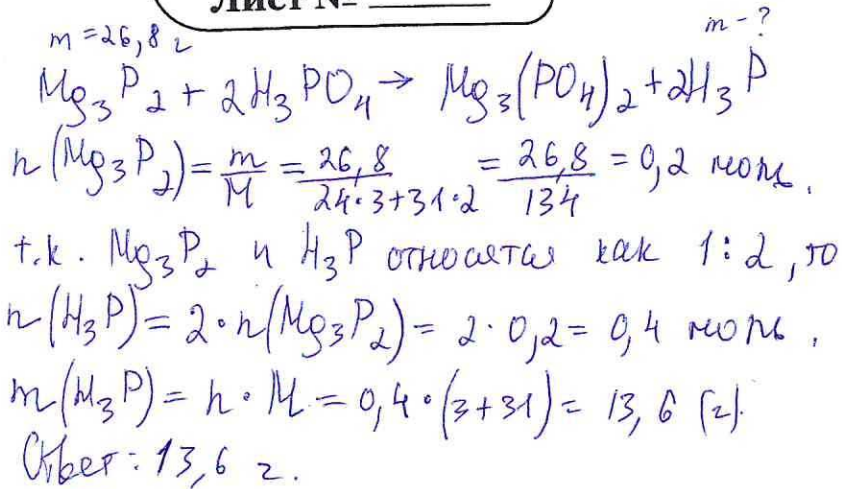
$M(X_3P_2) = 1,5952x$

+

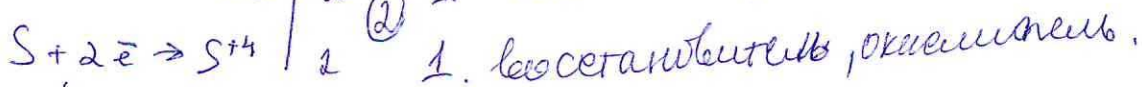
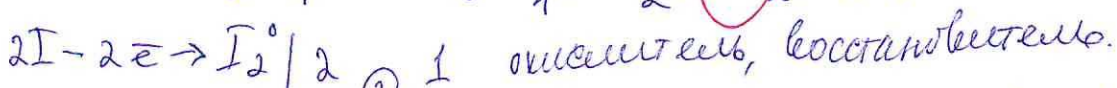
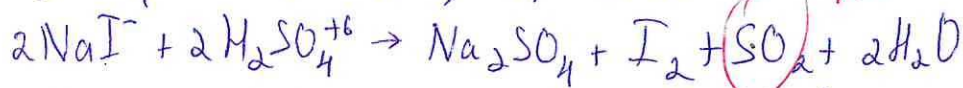
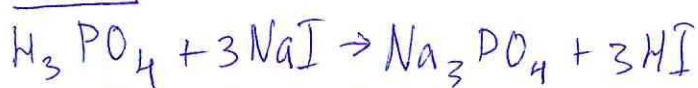
$M(MgCO_3) = 60 + 24 = 84 \text{ г/моль}$ $M(Mg_3P_2) = 62 + 92 = 134 \text{ г/моль}$

$\frac{M(Mg_3P_2)}{M(MgCO_3)} = \frac{134}{84} = 1,5952$





№ 7.1.



$$M(\text{H}_3\text{PO}_4) = 98 \text{ г/моль}$$

$$M(\text{H}_2\text{S}) = 34 \text{ г/моль}$$

№ 8.1.

$$w = \frac{m(\text{вещь})}{m(\text{р-ра})}$$

$$\begin{cases} x + y = 0,05 \\ 56x + 64y = 3 \end{cases}$$

$$y = 0,05 - x$$

$$56x + 64(0,05 - x) = 3$$

$$56x + 3,2 - 64x = 3 \rightarrow \ominus$$

$$-8x = -0,2$$

$$x = 0,025$$

$$y = 0,05 - 0,025 = 0,025$$

$$m(\text{в}) = 0,025 \cdot 64 = 1,6 \text{ г}$$

$$w(\text{в}) = \frac{1,6}{100} = 1,6\%$$

