

8

1. $1,44\%$, $-34,66\%$, $-47,29\%$: $-16,61\%$, $-$
20

$\text{Na}_a\text{H}_b\text{O}_c\text{X}_d$. (**2**) 100 ,

()

$$a:b:c:d = n(N):n(H):n(O):n(\text{Э}) = \frac{m(N)}{M(N)} : \frac{m(H)}{M(H)} : \frac{m(O)}{M(O)} : \frac{m(\text{Э})}{M(\text{Э})}$$

$$= \frac{16,61}{23} : \frac{1,44}{1} : \frac{34,66}{16} : \frac{47,29}{x} = 0,722 : 1,44 : 2,17 : \frac{47,29}{x}$$

(разделим на самое меньшее 0,722)

$$= 1 : 2 : 3 : \frac{65,5}{x}$$

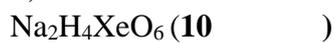
(**8**)

$$\frac{6,5}{x}$$

65,5

$$2 : a : b : c : d = 2 : 4 : 6 : \frac{1}{x}$$

$x=131$.

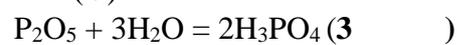


2.

8,0 (V) 220,0

15

(V)



$$m(\text{раствора}) = m(\text{воды}) + m(\text{P}_2\text{O}_5) = 220 + 8 = 228 \text{ г} \quad (3)$$

$$n(\text{H}_3\text{PO}_4) = 2n(\text{P}_2\text{O}_5) = 2 \cdot \frac{8}{1} = 0,1127 \text{ моль} \quad (3)$$

$$m(\text{H}_3\text{PO}_4) = n \cdot M = 0,1127 \cdot 98 = 11,04 \text{ г} \quad (3)$$

$$\omega = \frac{m(\text{кислоты})}{m(\text{раствора})} \cdot 100\% = \frac{11,04}{228} \cdot 100 = 4,8\% \quad (3)$$

3.

(

19,3 /).

585

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$$m(\text{золота}) = V(\text{золота}) \cdot \rho = 2^3 \cdot 19,3 = 154,4 \text{ г (7)}$$

$$n(A) = \frac{m(A)}{M(A)} = \frac{154,4}{170} = 0,908 \text{ моль (3)}$$

$$N(A) = n(A) \cdot N_A = 0,908 \cdot 6,02 \cdot 10^{23} = 5,47 \cdot 10^{23} \text{ атомов (6)}$$

585 ,

58,5%

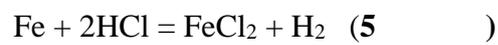
(0,585)

$$m(585 \text{ пробы}) = \frac{m(A)}{\omega(A)} = \frac{154,4}{0,5} = 308,8 \text{ г (4)}$$

5. , (. .)
10 , 26 .

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), 26 (:
(2)



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$$n(\text{H}_2) = n(\text{F}) = \frac{m(\text{F})}{M(\text{F})} = \frac{1}{5} = 0,179 \text{ моль} \quad (4)$$

$$V(\text{H}_2) = n(\text{H}_2) \cdot V_M = 0,179 \cdot 22,4 = 4 \text{ л} \quad (4)$$

6.

. «HOD. !». ,

HOD,

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OD- , ()
(D). , « »

(K), (SO₃) o (5)
(Na₂O).