

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)

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

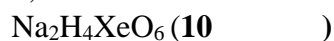
(**8**)

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

65,5

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

$x=131$ .

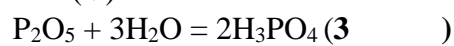


2.

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. (  $19,3 \text{ / } \text{ )}$ .  $585$   $2$  ?  
 $1000$  ? :  
 20

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

$$n(A) = \frac{m(A)}{M(A)} = \frac{154,4}{193} = 0,784 \text{ моль (3 )}$$

$$N(A) = n(A) \cdot N_A = 0,784 \cdot 6,02 \cdot 10^{23} = 4,72 \cdot 10^{23} \text{ атомов (6 )}$$

(0,585) ,  $585$  ,  $58,5\%$

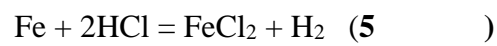
$$m(585 \text{ пробы}) = \frac{m(A)}{\omega(A)} = \frac{154,4}{0,585} = 263,9 \text{ г (4 )}$$



5. , ( . . )  
10 , 26 .

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) , 26 ( :  
(2 )



, ( )

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

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

6.

· «HOD. !».

HOD,

15

OD- (D). , « » ( )

(K), (SO<sub>3</sub>) o ( 5 (Na<sub>2</sub>O)). ,