

II ()

10

- 4

1.

450

HCl (. .)

1. HCl 1,21 / .
 2. HCl 100 ?
 :

(,)	
, 450 1 ,	2
$m(\text{H}_2\text{O}) = V \cdot \rho = 1000 \cdot 1 / = 1000$ ()	2
$m(\text{HCl}) = [V(\text{HCl}) \cdot M(\text{HCl})] : V_m = [450 \cdot 36,5] : 22,4 = 733,26$ ()	3
$m(\text{ - l}) = m(\text{HCl}) + m(\text{H}_2\text{O}) = 1000 + 733,26 = 1733,26$ ()	3
$w(\text{HCl}) = m(\text{HCl}) : m(\text{p-p}) = 733,26 : 1733,26 = 0,423$ (42,3 %)	3
100 : $V \cdot \rho = 100 \cdot 1,21 / = 121$	2
HCl 100 : $m(\text{HCl}) = \cdot m(\text{p-p}) = 0,423 \cdot 121 = 51,2$ ()	3
HCl: (HCl) = m:M = 51,2 : 36,5 = 1,4 ()	2
	0
	20

2.

-2 ()

0,5.

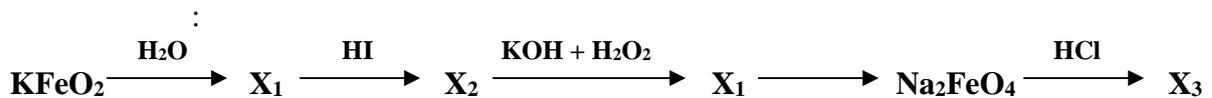
1.

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(,)	
: () = $D(\text{H}_2) \cdot 2 = 2Z$.	1
, (4 10) = (1-)	2
$m(4 8) = M(4 8) \cdot (4 8) = 56X$	3
$m(4 10) = M(4 10) \cdot (4 10) = 58(1-X)$	3
$3- = - 3+ 2 \quad 3- \quad 2- \quad 2- \quad 3$ $(4 8) = (4 10),$	2
$D(\text{H}_2)$ 0,5, : () = $2 \cdot (Z + 0,5)$	3

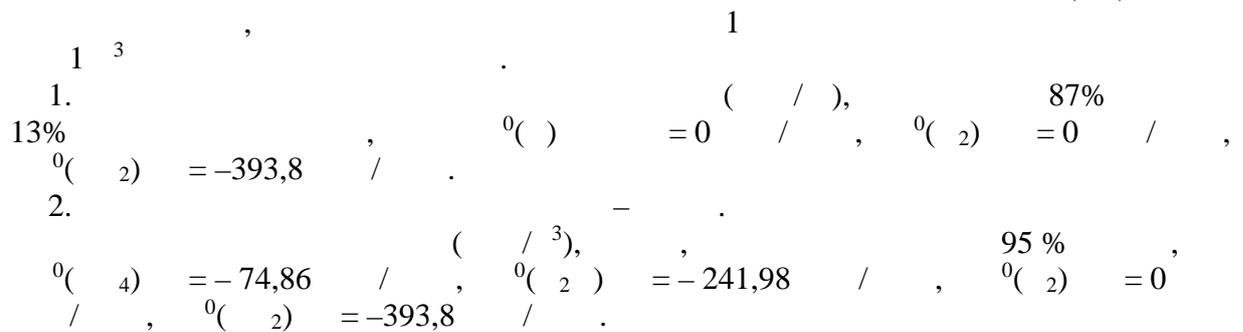
$\begin{cases} 56 + 58(1-x) = 2Z \\ 58 = 2(Z + 0,5) \end{cases} \quad \begin{matrix} Z = 28,5 \\ X = 0,5 \end{matrix}$	4
$= (4 \cdot 8) = 0,5, \quad (4 \cdot 10) = (1-x) = 0,5,$	1
$50\% \cdot 4 \cdot 8 \quad 50\% \cdot 4 \cdot 10$	1
	0
	20

3.



()	
$\text{KFeO}_2 + 2\text{H}_2\text{O} = \text{Fe(OH)}_3 + \text{KOH}$	4
$2\text{Fe(OH)}_3 + 6\text{HI} = 2\text{FeI}_2 + \text{I}_2 + 6\text{H}_2\text{O}$	4
$2\text{FeI}_2 + 4\text{KOH} + \text{H}_2\text{O}_2 = 2\text{Fe(OH)}_3 + 4\text{KI}$	4
$2\text{Fe(OH)}_3 + 3\text{Br}_2 + 10\text{NaOH} = 2\text{Na}_2\text{FeO}_4 + 6\text{NaBr} + 8\text{H}_2\text{O}$	4
$2\text{Na}_2\text{FeO}_4 + 16\text{HCl} = 2\text{FeCl}_3 + 3\text{Cl}_2 + 4\text{NaCl} + 8\text{H}_2\text{O}$	4
	0
	20

4.



()	
1. $(\text{Fe}_2\text{O}_3) + 2(\text{H}_2\text{O}) = 2(\text{Fe(OH)}_3)$	1
$0 = 0(\text{Fe}_2\text{O}_3) - [0(\text{Fe}_2\text{O}_3) + 0(\text{H}_2\text{O})]$	2
$0 = -393,8 /$	1
$Q = -0$; $Q = 393,8 /$	1
1	1
$m(\text{Fe}_2\text{O}_3) = (\text{Fe}_2\text{O}_3) \cdot m(\text{Fe}_2\text{O}_3) = 0,87 \cdot 1000 = 870$	1
$(\text{Fe}_2\text{O}_3) = 393,8 / \cdot (870 : 12 /) / 1 = 28550,5 /$	3

$() = m() : M(C) = 870 : 12 / = 72,5$	1
$Q = 393,8 / \cdot 72,5 = 28550,5$	1
$() = 28550,5 : 1 = 28550,5 /$	1
2. $: 4() + 2 2() = 2() + 2 2 ()$	1
$= [0(2) + 2 0(2)] - [2 0(2)$	2
$+ 0(4)]$	
$= [(- 393,8) + (-2 \cdot 241,98)] - [0 + (-74,86)] = - 802,9 (/)$	1
$Q = - 0 ; Q = 802,9 /$	1
	1
$V() = (H_4) \cdot V(1^3,) = 0,95 \cdot 1^3 = 0,95^3 = 950$	1
$(4) = 802,9 / \cdot (950 : 22,4 /) / 1^3 = 34051,6 / ^3.$	3
$(H_4) = V(H_4) : V_m = 950 : 22,4 / = 42,41 ()$	1
$Q = 802,9 / \cdot 42,41 = 34051,6$	1
$() = 34051,6 : 1^3 = 34051,6 / ^3$	1
	0
	20

5.

1. , , , , , (V), .
2. , ? .
3. .
- :

$(,)$	
	1
$CuSO_4 + 5H_2O = CuSO_4 \cdot 5H_2O$	2
$() ;$	1
$Al_2S_3 + 6H_2O = 2Al(OH)_3 + 3H_2S$	2
$() ;$	1
$AlCl_3 + 6H_2O = AlCl_3 \cdot 6H_2O + Q$	1
$AlCl_3 + H_2O = AlOHCl_2 + HCl$	1
$AlOHCl_2 + H_2O = Al(OH)_2Cl + HCl$	1
$1()_2 + 1 + 2 = 1()_3 + 1$	1
$()$	1
$P_2O_5 + H_2O = 2HPO_3$	1
$HPO_3 + H_2O = H_3PO_4$	1
$(,)$	1
	1
1) $() ;$	2
$NH_4Cl + NH_3 + HCl ;$	
2) $;$	2
	0
	20

