

9

1.

<p>( 1 )</p>	<p>- ; ( , ; ( , , , )</p>	<p>1</p>
	<p>- ; , 2</p>	<p>1</p>
	<p>- ; ,</p>	<p>1</p>
	<p>-Si - Si 4,</p>	<p>1</p>
<p>( 1 )</p>	<p>- 2</p>	<p>1</p>
	<p>- 2</p>	<p>1</p>
	<p>- Si 4,</p>	<p>1</p>
<p>( 1 )</p>	<p>+2 l1 = l2 + 2</p>	<p>1</p>
	<p>Si 4+2 2 = Si 2+ 2 2</p>	<p>1</p>
<p>3</p>	<p>160 , 89,6 +2 l1 = l2 + 2 160 89,6 (4 ) ----- 2 x 22,4 91 ) x = 40. 40 / ( r=40).</p>	<p>1</p>
	<p>11.2%. r( 2) = x+2</p>	<p>1</p>

	$W(\text{Na}) = n(\text{Na}) \cdot Ar(\text{Na}) / r(\text{Na})$ $W(\text{Na}) = n(\text{Na}) \cdot Ar(\text{Na}) / r(\text{Na})$ $0,112 = 2 \cdot 1 / x + 2$ $0,112(x+2) = 2$ $0,112x = 2 - 0,224$ $0,112x = 1,776$ $x = 15,857 = 16$	18 / ( r=16).
	12,5%. $r(\text{Na}) = x + 4$ $W(\text{Na}) = n(\text{Na}) \cdot Ar(\text{Na}) / r(\text{Na})$ $W(\text{Na}) = n(\text{Na}) \cdot Ar(\text{Na}) / r(\text{Na})$ $0,125 = 4 \cdot 1 / x + 4$ $0,125(x+4) = 4$ $0,125x = 4 - 0,5$ $0,125x = 3,5$ $x = 28$	28 / ( r=28) .
		12

## 2

( 1 )	$2 \text{ S}_4 + 2 \text{ Na}_2\text{S} = 2 \text{ S}_4 + 2 \text{ Na}_2\text{S}$	1						
	$2 \text{ gS}_4 + 2 \text{ Na}_2\text{S} = 2 \text{ g} + 2 \text{ Na}_2\text{S}$	1						
	$2 \text{ S}_4 + 2 \text{ Na}_2\text{S} = \text{Na}_2\text{S}_4 + 2 \text{ Na}_2\text{S}$	1						
	$\text{Na} + \text{I} = \text{NaI} + \text{I}_2$	1						
Na	$m(\text{Na}) = V \times \rho = 22,5 \times 1,11 / 1000 = 24,975 = 25$ $m(\text{Na}) = \omega \times m = 25 \times 0,112 = 2,8$ $n(\text{Na}) = m / Ar = 2,8 / 40 = 0,07$	1						
1	$M = n / V$ $n(\text{I}) = M \cdot V = 0,625 / 0,016 = 0,01$	1						
,	$V(\text{I}) = V_m \cdot n(\text{I}) = 22,4 / 0,01 = 2,24$	1						
	<table style="margin-left: auto; margin-right: auto;"> <tr> <td>x</td> <td>0,01</td> </tr> <tr> <td>Na</td> <td>----- 1</td> </tr> <tr> <td>1</td> <td>1</td> </tr> </table>	x	0,01	Na	----- 1	1	1	1
x	0,01							
Na	----- 1							
1	1							



( )		
		15

3.

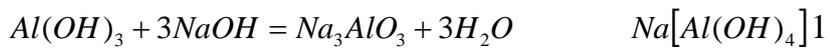
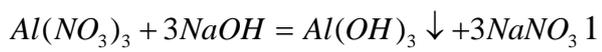
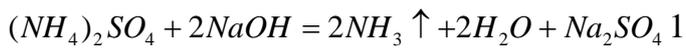
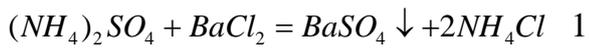
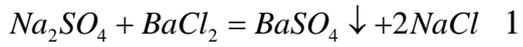
	$\text{Zn} + 2 \text{HCl} = \text{ZnCl}_2 + \text{H}_2$ $\text{Zn} + \text{H}_2\text{SO}_4 = \text{ZnSO}_4 + \text{H}_2$	1
	$\text{Fe} + 2 \text{HCl} = \text{FeCl}_2 + \text{H}_2$ $\text{Fe} + \text{H}_2\text{SO}_4 = \text{FeSO}_4 + \text{H}_2$	1
	$\text{Zn} + \text{H}_2 + 2\text{NaOH} = 2\text{NaH} + \text{Zn(OH)}_2$ $\text{Zn(OH)}_2 + 2\text{NaOH} = \text{Na}_2[\text{Zn(OH)}_4]$	2
	$\text{Fe} + \text{H}_2 + 2\text{NaOH} = 2\text{NaH} + \text{Fe(OH)}_2$ $4\text{Fe(OH)}_2 + \text{O}_2 + 2\text{H}_2\text{O} = 4\text{Fe(OH)}_3$	2
( )	$\text{Na}_2[\text{Zn(OH)}_4] + \text{H}_2\text{SO}_4 = \text{Na}_2\text{SO}_4 + \text{Zn(OH)}_2 + \text{H}_2\text{O}$ $\text{Zn(OH)}_2 \xrightarrow{t} \text{ZnO} + \text{H}_2\text{O}$ $\text{ZnO} + \text{C} \xrightarrow{t} \text{Zn} + \text{CO}$	3
( )	$2\text{Fe(OH)}_3 \xrightarrow{t} \text{Fe}_2\text{O}_3 + 3\text{H}_2\text{O}$ $\text{Fe}_2\text{O}_3 + 3\text{H}_2 = 2\text{Fe} + 3\text{H}_2\text{O}$	2
(1 )	$\text{H}_2 + \text{Cl}_2 = 2\text{HCl}$	1
	$\text{H}_2 = \text{H}_2$	1
(2 )	$3\text{C} + 8\text{N}_2 = 3\text{C}_3 + 2\text{N}_2 + 4\text{H}_2$ $3\text{g} + 8\text{N}_2 = 3\text{gC}_3 + 2\text{N}_2 + 4\text{H}_2$	2

	$2 \text{ (N}_3\text{)}_2 = 2 \text{ N}_2 + 4 \text{ N}_2 + 2$ $+ 2 = + 2$	2
	$g \text{ (N}_3\text{)}_2 = g + 2 \text{ N}_2 + 2$	1
	18 18	18

4

(0,5 0,5 )	1 -	1
	,	1
	- 2	1
	1 I <sub>3</sub>	1
	Na[ I( ) <sub>4</sub> ] -	1
( 1 )	$2 \text{ I} + 6 \text{ I} = 1 \text{ I}_3 + 3 \text{ I}_2$	1
	$2 \text{ I} + 2 \text{ Na} + 3 \text{ I}_2 = 2 \text{ Na[ I( )}_4\text{]} + 3 \text{ I}_2$	1
	$1 \text{ I}_3 + 3 \text{ Na} = 1 \text{ ( )}_3 + 3 \text{ Na I}$	1
	$\text{I( )}_3 + \text{Na} = \text{Na[ I( )}_4\text{]}$	1
( )	$n(\text{I}_2) = V / V_m = 13,44 / 22,4 = 0,6$	2
	$\frac{2}{2} \frac{0,6}{3} \frac{3}{3} \text{ I}_2$ $= 0,4$ $( ) = m / n = 10,8 / 0,4 = 27 / -$	
		10

5.



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