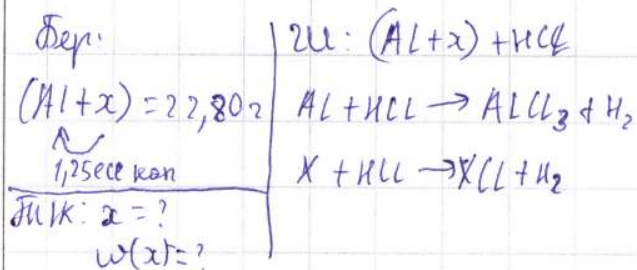
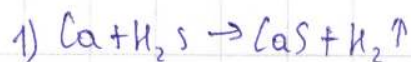


N1

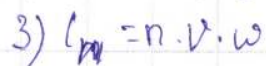
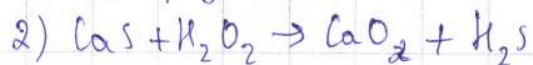


N2

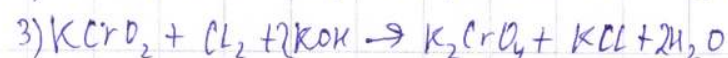
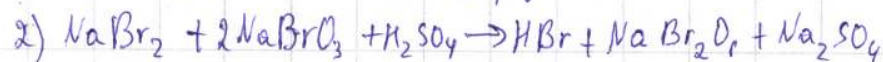
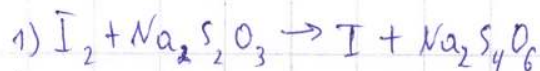
X - металл = Ca



Асылығы CaS

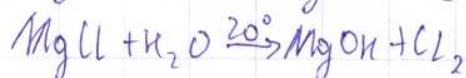
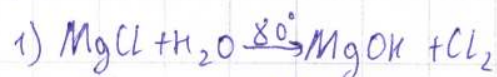


N3



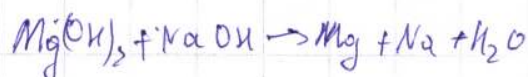
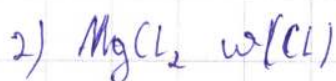
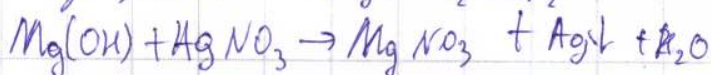
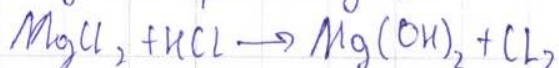
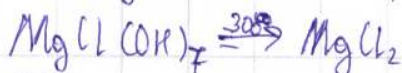
N4 —

N5

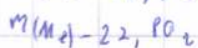
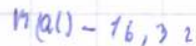


$$1) 1) m(MgOH) = 1002 - 65,82 = 24,22$$

$$m(MgOH) = 1002 - 54,82 = 35,22$$

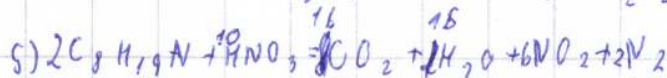
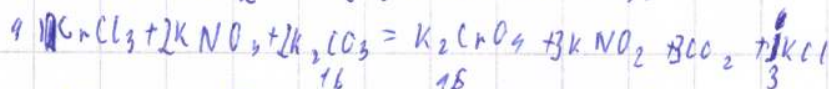
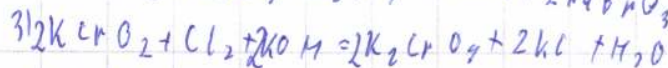
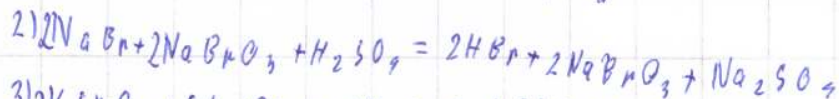
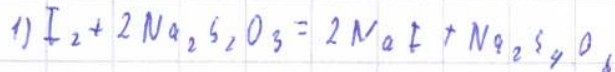


N 1

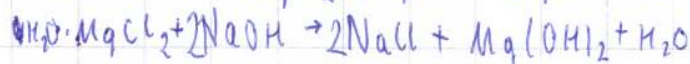
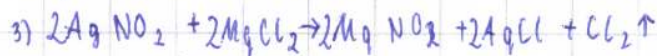
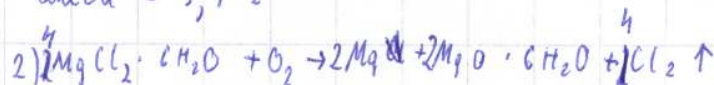
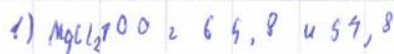
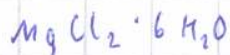


N 2

N 3



N 4





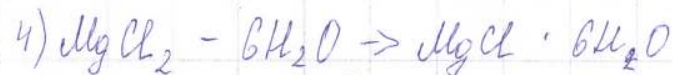
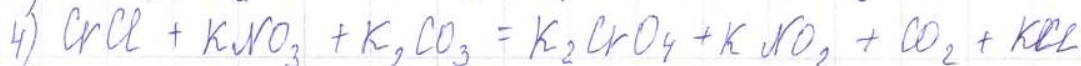
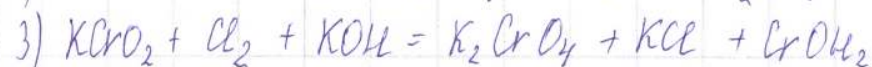
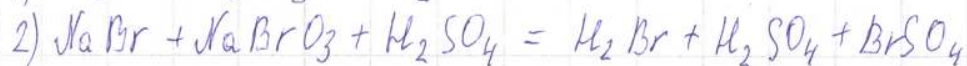
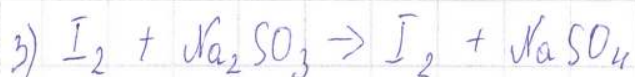
$$M_r(\text{Al}) = 27$$

$$x = \frac{22,10 \cdot 224}{27} = 181,94 \text{ моль}$$



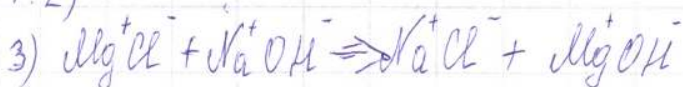
$$M_r(\text{Al}_2\text{S}_3) = 24 \cdot 2 + 36 \cdot 3 = 154$$

$$x = \frac{136 \cdot 154}{24} = 58,8$$



$$x = \frac{100 \cdot 65,8}{784} = 8,4 = 82$$

4.2)





Задача 1. Смесь веществ.

Дано:

$$m(\text{Al}) = 22,80\text{г}$$

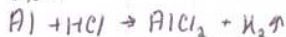
$$V(\text{H}_2) = 24,64\text{ л (н.у.)}$$

$m \rightarrow 81,25$  қол-во Al

2) V.

Решение:

22,80



$$x = 1,257$$

$$22,80\text{г} - 24,64\text{ л} -$$

$$x = \frac{1,25 + 22,80}{24,64} = 115,6\%$$

Задача 2. Неизвестные вещества.

$$m \text{ A} = 86,62\%$$

$$\text{H}_2\text{O} = 100\%$$

$$\rho = 1\text{ г/л}$$

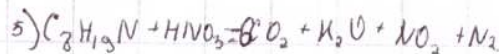
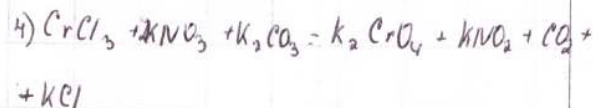
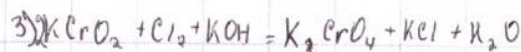
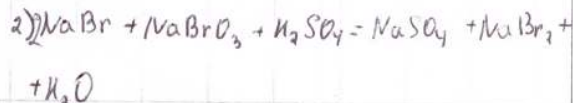
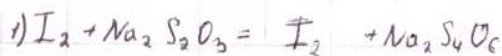
Решение

$$x = 100\%$$

$$86,62\% = 0,00322$$

$$x = \frac{100 \cdot 0,00322}{86,62\%} = 0,00322$$

Задача 3. Химические реакции



Задача 4. Бишорит.

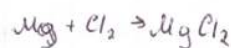
$$1) \text{MgCl} = 100\%$$

$$80\% \text{ } 20\%$$

$$65,8 \text{ г} \text{ } 54,8$$

m.к.

n.?



$$x = 100$$

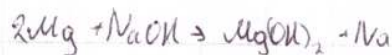
$$65,8 - 54,8$$

$$x = \frac{100 \cdot 65,8}{54,8} = 120,072$$

$$2) M(\text{Cl}_2) = 35,451$$

$$V = 50\text{ мл}$$

$$\text{порт. } 12,0\text{ мл } 0,05\text{M NaOH}$$



1) берілген:

$$m(\text{Me}) = 27,8 \text{ г}$$

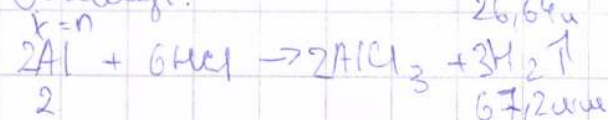
$$V(\text{H}_2) = 26,64 \text{ л}$$

$$n(\text{Me}) = 1,25 \cdot n(\text{Al})$$

$$\omega(\text{Me}) = ?$$

$$V(\text{сінт}) = ?$$

Шешуі:

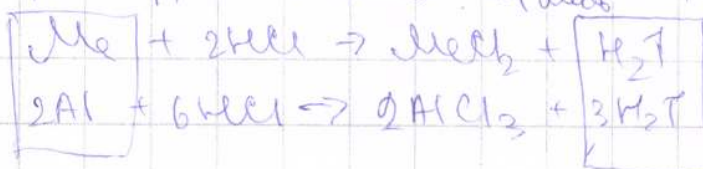


$$n(\text{Al}) = 0,8 \text{ моль} \quad n(\text{Me}) = 0,8 \cdot 1,25 = 1 \text{ моль.}$$

$$m(\text{Al}) = 0,8 \cdot 27 = 21,6 \text{ г}$$

$$m(\text{Me}) = 27,8 - 21,6 = 6,2 \text{ г}$$

$$M = \frac{m}{n} \quad M(\text{Me}) = \frac{6,2}{1} = 6,2 \text{ г/моль.}$$

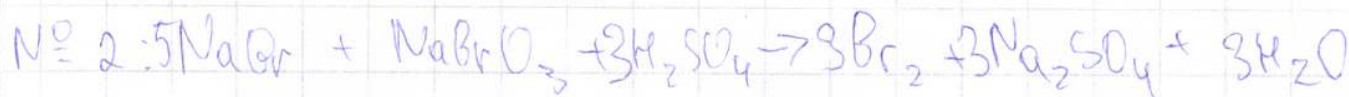
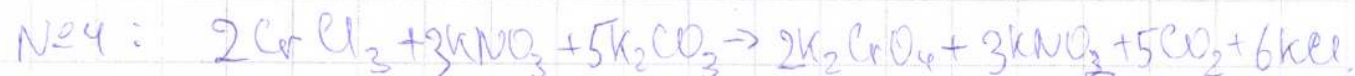


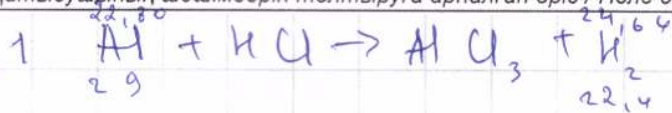
$$2) \quad V = \frac{m}{\rho \omega} \quad V = \frac{m = 27,8}{0,25 \cdot 1,185 \text{ г/см}^3} = \frac{27,8}{0,29625} = 94 \text{ см}^3$$

2-есеп.

бер:

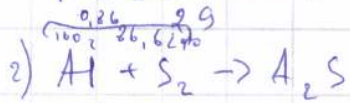
3-есеп.





$$M_r(\text{Al}) = 29$$

$$r = \frac{22,80 \cdot 22,4}{29} = 181,94$$



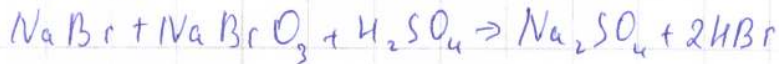
$$M_r(\text{Al}_2\text{S}_3) = 24 \cdot 2 + 32 \cdot 3 = 154$$

$$x = \frac{0,86 \cdot 154}{24} = 58,8$$

3 есеп реакция 1.



реакция 2.



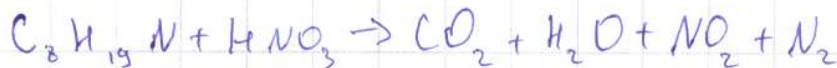
реакция 3.



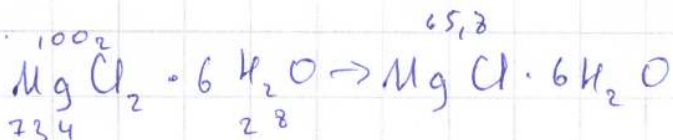
реакция 4



реакция 5.



4 есеп 1.



$$x = \frac{100 \cdot 65,8}{234} = 28,1$$

$$2) \quad M_r(\text{Cl}_2) = 35,5 \cdot 2 = 71,0 \approx 71$$



№1

Тегін берілгені:

$$m = 22,80 \text{ г}$$

$$V = 24,64 \text{ л (к. т.) газ}$$

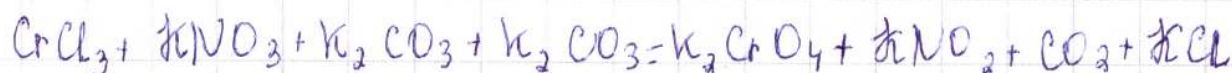
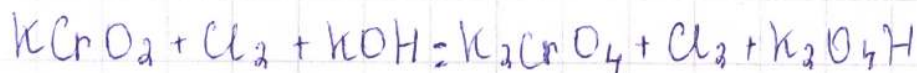
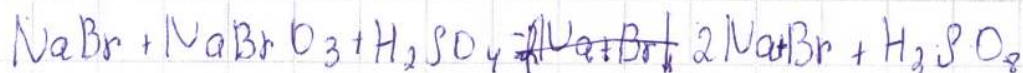
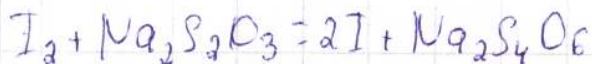
$$X = 1,25 \text{ есе көбейтінді}$$

Шешуі:

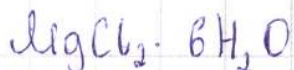
$$\Delta L = 2 \cdot 13 - 29 = 3$$

$$22,80 \cdot 3 = 19,80$$

№3



№4



$$100 - 65,8 = 34,2$$

$$T_1 = 90^\circ \quad 100 - 54,8 = 45,2$$

$$T_2 = 20^\circ \quad 34,2 - 45,2 = 11$$

$$m_1 = 65,8 \text{ г}$$

$$m_2 = 54,8 \text{ г}$$

№2

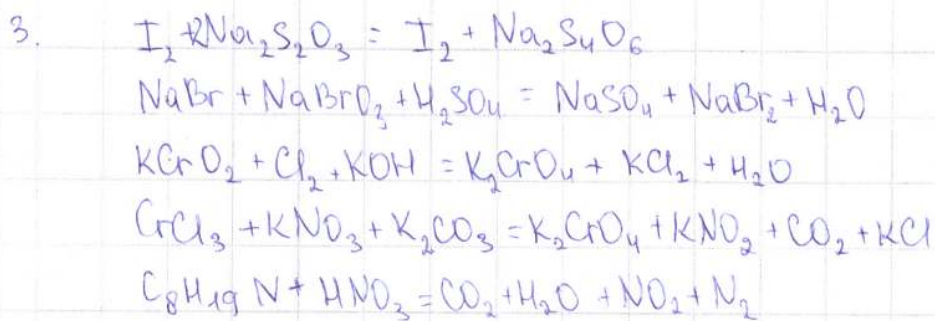
$$m = 86,62\%$$

X-4

1.  $m(A) - 22,80\%$   $x = 1,25$   
 $V_{\text{ж.к.}} - 24,64$   $22,80 - 24,64$   
 Белгісіз метал - 1,25с  
 ТЛК:  
 Белгісіз метал - ?

$$x = \frac{1,25 \cdot 22,80}{24,64} = 1,15$$

2.  $m(A) - 82,62\%$   $x = 100$   
 $H_2O - 100\% \cdot 0,0032$   $82,62 - 0,0032$   
 $\varnothing - 1\text{мл}$   $(x = \frac{100 \cdot 82,62}{0,0032})$   
 $m - ?$   $x = \frac{100 \cdot 0,0032}{82,62} = 0,003$



4.1.  $MgCl - 100\%$   $\begin{matrix} 65,8 & 54,8 \\ Mg + Cl = & MgCl \end{matrix}$   
 $80^\circ - 20^\circ$   $x = 100$   $x = \frac{100 \cdot 65,8}{54,8} = 120,07$   
 $65,8 - 54,8$   $65,8 - 54,8$   
 ТЛК:  
 $m - ?$

4.2.  $m(A) - 0,2912$   $x = 50$   $x = \frac{50 \cdot 0,291}{0,632} = 23,02$   
 $V - 50\text{мл}$   $0,291 - 0,632$   
 $m - 0,632$   
 ТЛК:  
 $m - ?$



1.1.

Берілгені:

$$m(\text{Al}_2\text{O}_3) = 22,802$$

ерігі (KOH)

$$V = 24,64 \text{ л (к.ж.)} \uparrow$$

$$\alpha = 1,25 \text{ есе көп Al}$$

$$\alpha = ?$$

$$\omega(\text{Al}) = ?$$

Шешуі:

$$\text{KOH } 56 \text{ моль}$$

$$\text{KOH } 56 \text{ моль}$$

2.4.

Берілгені:

$$m = 202 \text{ (1916 жол)}$$

$$50\% \text{ сүзгілеу} = 22,2 \text{ жол}$$

$$m = 1,252 \text{ жол.}$$

Шешімі:

$$25\% = 11,1 \text{ жол (152)}$$

$$50\% = 22,2 \text{ жол (102)}$$

$$75\% = 33,3 \text{ жол (52)}$$

$$1,252 \cdot 1916 + 33,3 = 1949 \text{ жол.}$$

1) Дано:

Решение

Mг 22.30 грамм

$$\frac{22.30}{1.25} = 18.24 \text{ (г)} - \text{масса не известного металла}$$

заг - 24,64г

$$\frac{22.30}{100\%} = 9228$$

$$\frac{18.24}{0.223} = 80\%$$

не известный металл Ba

(m) - ? в 1.25 р &gt; 7

(m) Al - ? ←

1.2



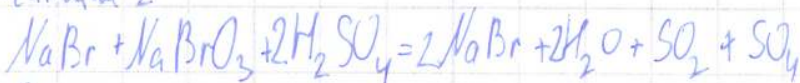
$$137 + 24 = 161 \cdot 1.85 = 154.34 \text{ г/моль}$$

3.

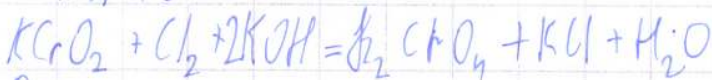
Реакция 1



Реакция 2



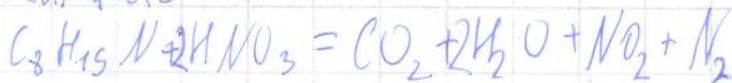
Реакция 3



Реакция 4



Реакция 5



4.1

$$1) 65.3 \text{ } ^\circ\text{C} \quad 200 - 65.3 = \frac{134.2}{2} = 67.1 \text{ } ^\circ\text{C}$$

$$54.8 \text{ } ^\circ\text{C} \quad 200 - 54.8 = \frac{145.2}{2} = 72.6 \text{ } ^\circ\text{C}$$

4.2

$$\text{Cl} \approx 0,35 \text{ моль}$$

1) Берілгені

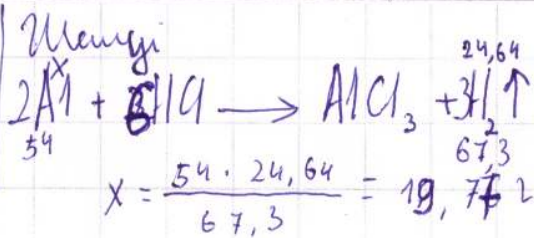
$$m(\text{Al} + \text{Me}) = 22,80 \text{ г}$$

$$V(\text{H}_2) = 24,64 \text{ л}$$

Me - ?

 $\omega(\text{Me} + \text{Al}) = ?$ 

Менші

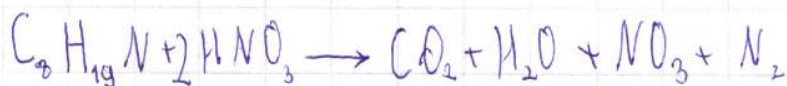
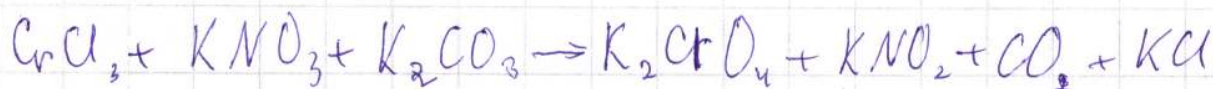
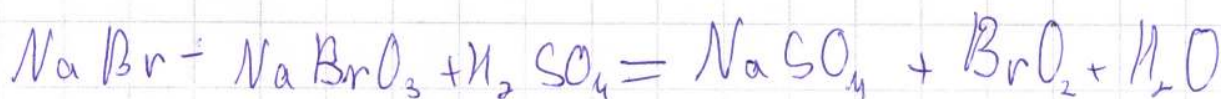


$$x = \frac{54 \cdot 24,64}{67,3} = 19,77 \text{ г}$$

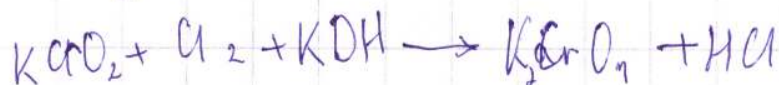
2)

$$22,80 - 19,77 = 3,03 \text{ г}$$

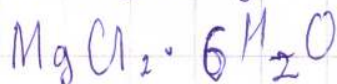
$$\text{Me} = 3,03 \text{ г}$$



Реакция №3



№4 Тимурин

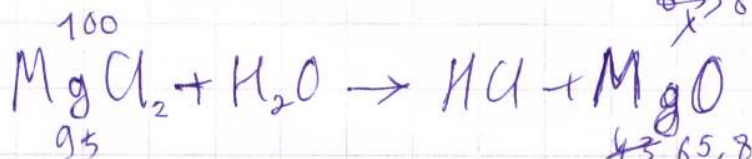


1) Берілгені

$$m(\text{MgCl}_2) = 100 \text{ г}$$

$$t_1 = 80^\circ\text{C}$$

$$t_2 = 20^\circ\text{C}$$



$$x = 65,26 \text{ г}$$



Берілгені:

$$m(A) - 22,802$$

$$\rho - 24,6 \text{ г/см}^3$$

$$\rho - 1,185 \text{ г/мл}$$

ТК:

$$\omega(X) - ?$$

№2.

(берілгені)

Шешуі:

$$Al + X =$$

$$\omega = \frac{22,802}{24,6 \text{ г/см}^3}$$

$$\omega = \frac{V \cdot \rho \cdot M}{M}$$

№2

Берілгені:

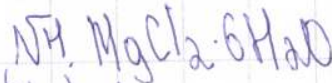
$$\omega(A) - 86,62\%$$

$$\rho(B) - 1 \text{ г/мл}$$

$$m(B) 100 \text{ г / H-ороса}$$

Шешуі

$$\rho(A, B)$$

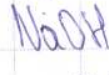


$$m(\text{Mg}) - 100 \text{ г}$$

$$T_{\text{перг}} - 80^\circ\text{C} - 20^\circ\text{C}$$

$$m / 65,82 \cdot 54,82$$

0,05



$$m = V \cdot M$$

