

Задание 1

Дано:

Решение:

$$m_{\text{обш}} = 22,00 \text{ г}$$

$$P = 9,12 \text{ г}$$

$$V(R) = 4,44 \text{ л}$$

$$Q = R + S \Rightarrow 10,88 \text{ г}$$

$$m(R) = 8,73 \text{ г}$$

$$R = 8,73 \text{ г}$$

$$m(S) = 2,15 \text{ г}$$

$$S = 2,15 \text{ г}$$

$$w(P), (Q) = ?$$

$$w = \frac{m}{M} \quad w(P) = \frac{8,73 \text{ г}}{22,00 \text{ г}} = 0,3968 \cdot 100\% = 39,68\%$$

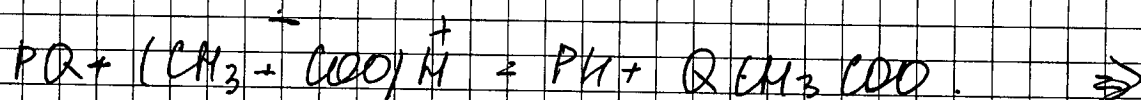
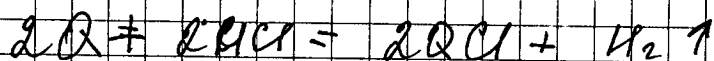
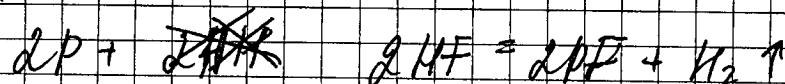
$$P, Q, R, S = ?$$

$$w(Q) = \frac{11,12 \text{ г}}{22,00 \text{ г}} = 0,5055 \cdot 100\% = 50,55\%$$

$$n = \frac{m}{M} \Rightarrow M = \frac{m}{n}, \quad n = \frac{V}{V_A}$$

$$\Rightarrow n(R) = \frac{V}{V_A} = \frac{4,44 \text{ л}}{22,4 \text{ л/моль}} = 0,1982 \text{ моль}$$

$$M(R) = \frac{8,73 \text{ г}}{0,1982 \text{ моль}} = 44,05 \text{ г/моль} \Rightarrow M(S)$$



$$n(R) = n(S) = n(Q)$$

$$\Rightarrow (S) M = \frac{2,15}{0,1982} = 10,85 \Rightarrow M(M)$$

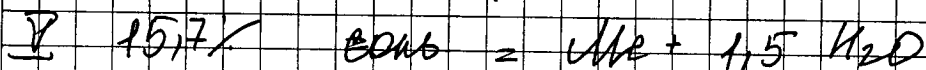
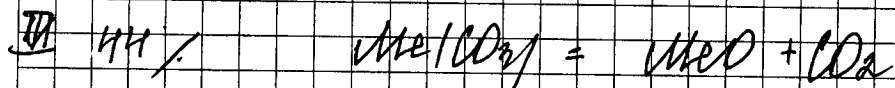
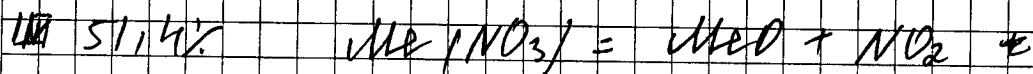
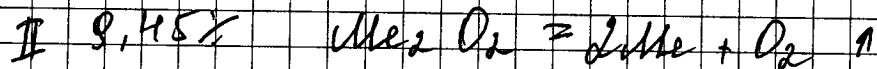
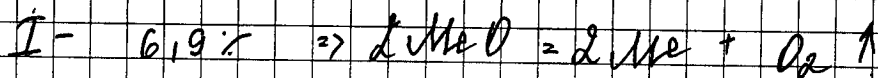
$$Q(M) = \frac{10,88}{0,1982} = 54,89 \Rightarrow M(Mn)$$

$$(P) M = \frac{m}{n}$$

но ур: P - 2 моль

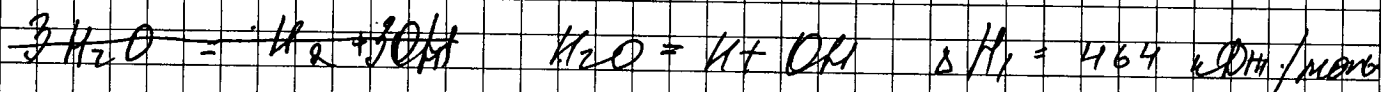
но ур: P - 1 моль

Задача 2.



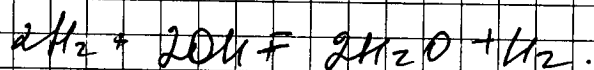
I и IV - 1 и тоже вещество.

Задача 4.



$$n = \frac{2V}{V_H} = \frac{2}{6,02} \cdot 10^{23} = 0,33 \cdot 10^{23} = 3,3 \cdot 10^{22} \text{ моль}^{-1}$$

$$17 \cdot 10^{20} = 464 \text{ кДж/моль}$$

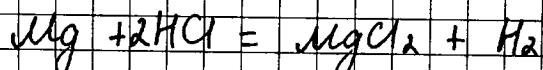
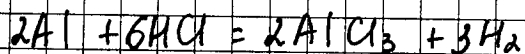
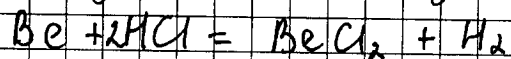
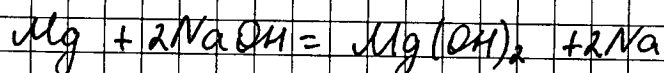
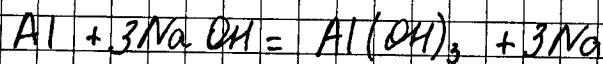
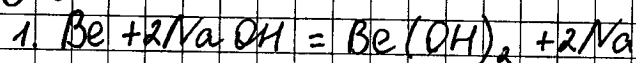


$$17 \cdot 10^{20} \text{ моль} - 464 \text{ кДж}$$

$$3,3 \cdot 10^{22} \text{ моль} - 900,71 \text{ кДж}$$

Ответ: $\Delta H_2 = 900,71 \text{ кДж}$

задание 3



2. куб из магния

шар из бериллия

цилиндр из алюминия

3. в 2 раза

задание 4.

$$1. \Delta H_2 = 20 \text{ кДж/моль.}$$

$$3. \Delta H_4 = 436 \text{ кДж/моль}$$

$$\Delta H_5 = 464 \text{ кДж/моль}$$

$$2. (464 \text{ кДж/моль}) 34$$

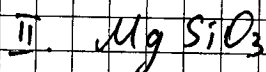
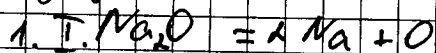
задание 3.

4. 4,096

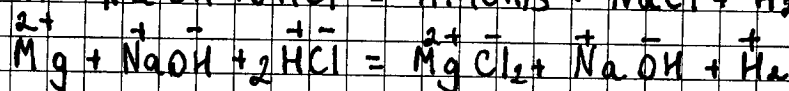
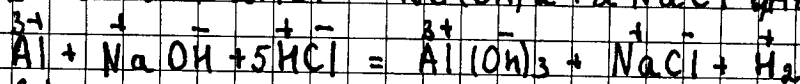
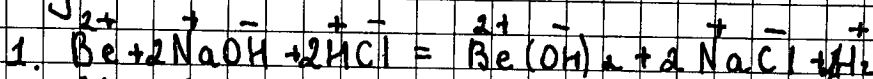
задание 1.

2. Q - Mg

задание 2.



Задание 3.



2. сульфид - Al

хлорид - Mg

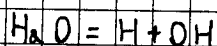
гидроксид - Be

3. (в 10 раз) в 10 раз

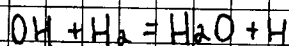
$$4. V = \frac{4}{3}\pi r^3$$

$$V = \frac{4 \cdot 3,14 \cdot 343}{3} = \frac{4308}{3} = 1436 \text{ см}^3$$

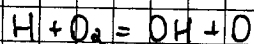
Задание 4.



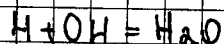
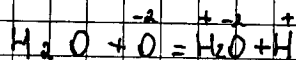
$$\Delta H_1 = 464 \text{ кДж/моль}$$



$$\Delta H_2 = ? = 436 \text{ кДж/моль}$$



$$\Delta H_3 = 34 \text{ кДж/моль}$$



Задание 2.

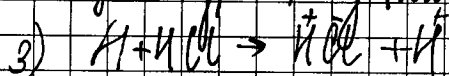
1. He 3. Ca 5. N

2. Be 4. V

2) I и III вещества

Задание 3.

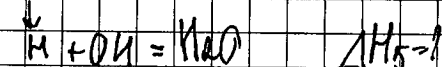
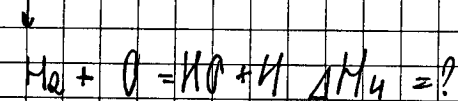
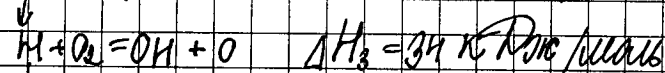
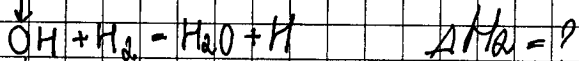
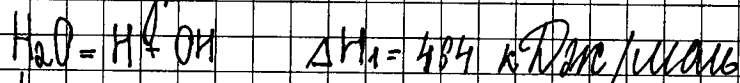
- 2) куб - Be (бериллий)
 шар - Al (алюминий)
 цилиндр - Mg (магний)



4) $V = \frac{4}{3} \pi r^3$

Задание 4

Выписать уравнения окислительных и восстановительных процессов в реакции:



① $900 \text{ кДж/моль} - \Delta H_2$



③ $\Delta H_4 = 470 \text{ кДж/моль}$

$\Delta H_5 = 900 \text{ кДж/моль}$

Задание 1.

1. Р и Q

$$P = 30,974$$

$$Q = ?$$

$$\text{Ответ: } 30,974$$

2. P, Q, R, S

$$P = 30,974$$

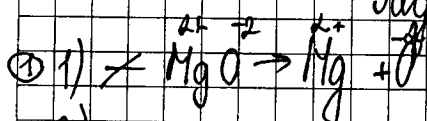
$$Q =$$

$$R =$$

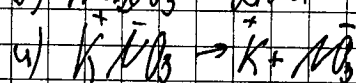
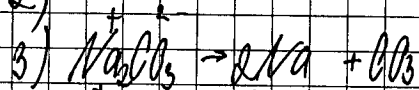
$$S = 32,066$$

3. P

Задание 2.



2) -



2. III и IV

Задание 3.

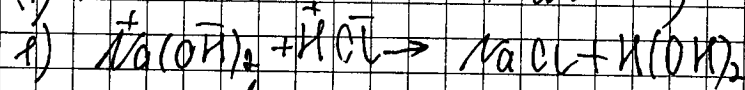
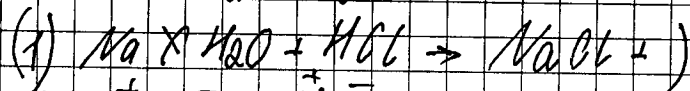
$$\rho \text{ из берилла} = 1,84 \text{ г/см}^3$$

$$\rho \text{ из алюминия} = 2,70 \text{ г/см}^3$$

$$\rho \text{ из магния} = 1,74 \text{ г/см}^3$$

Все вещества в штаток 10-1. раствора H_2O и

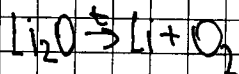
сильная кислота HCl



уравнения реакции

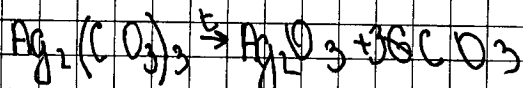
~ 2

1 I - Li



II - Li

III - Ag

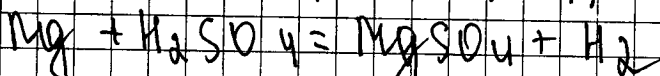
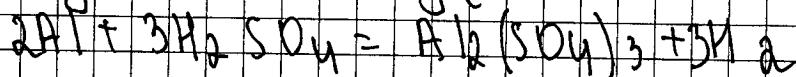
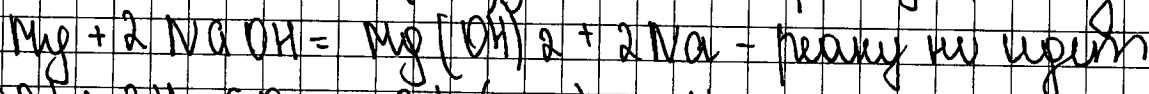
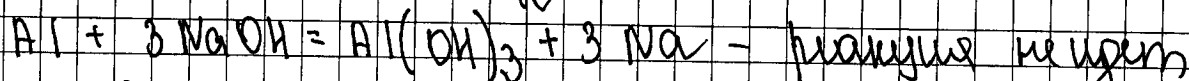
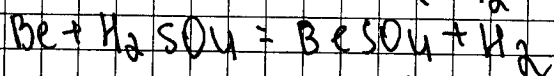
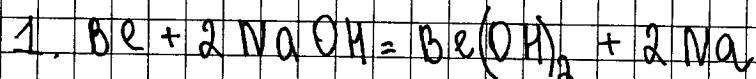


IV - Fe

V - Cu

↑ а могут принимать массу
I II IV

~ 3

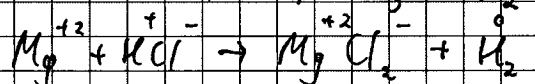
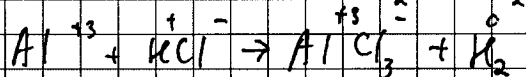
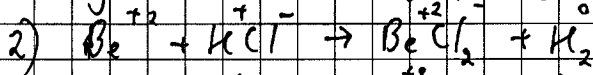
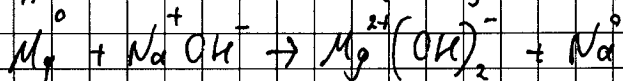
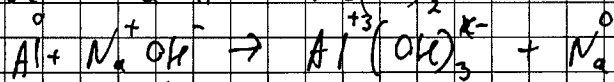
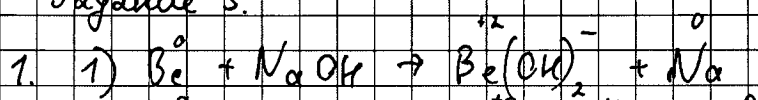


2. Гуминат - Al

куб - Be

шар - Mg

Задание 3.



2. Куд - Mg

Шар - Be

Цилиндр - Al

4. 1

1.

1) P - 7,3 г Q - 6,45 г

2)

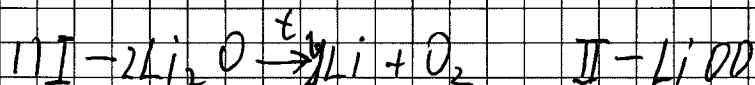
P - Ga

Q - K

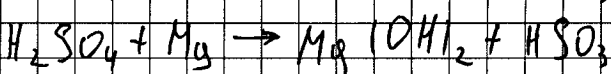
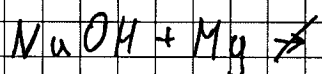
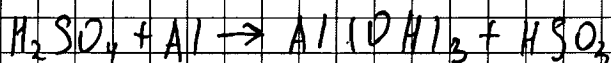
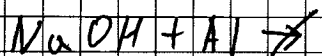
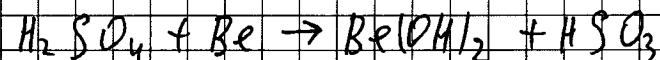
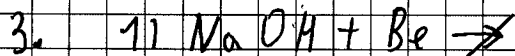
R - CO₂S - H₂SO₄

3) —

2.



2) При более сильном нагревании I, II, V вещество может терять массу.



2) куб - алюминий. (Al)

шар - бериллий. (Be)

цилиндр - магний. (Mg)

3) в 2 раза.

4) 4.

4. 1) 28 кДж/моль.

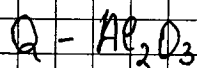
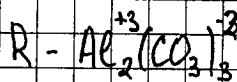
4) 2

2)

3) $\Delta H_4 = 470$ кДж/моль. $\Delta H_5 = 464$ кДж/моль.

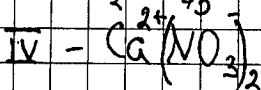
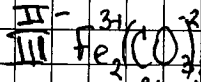
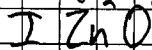
Задание 1

D -



S -

Задание 2.

O⁺² -2

V -

Задание 3.

куб - Al

шар - Be

цилиндр - (машин) Mg

1) Искорное вещество - сода. Указывает в газетной
университет. Значит, вещество Р и Q - основные соли
(сода потирание)