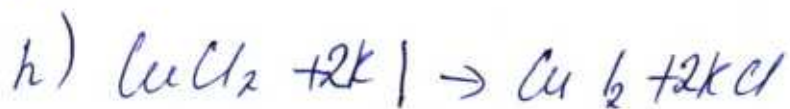
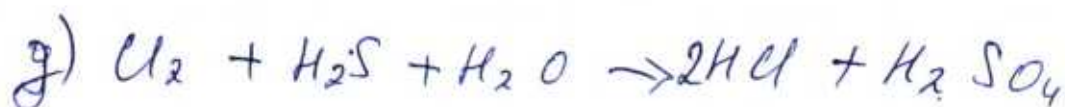
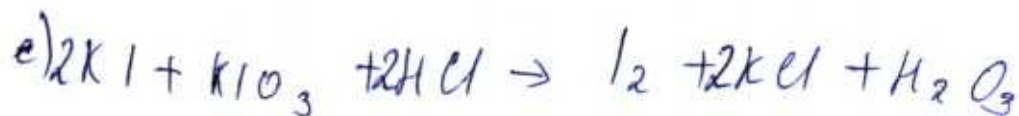
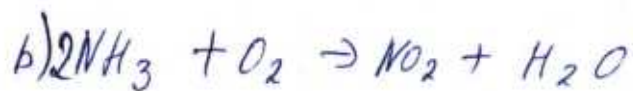
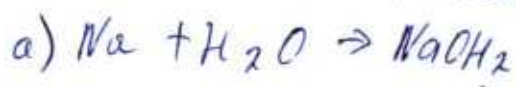


1-мәселе.



2-мапсориға.

2.3. Балмақон қоспадан миллиграммдық массадағы
үлестеріне аналмағыз.

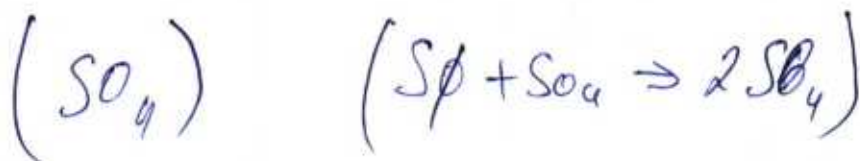
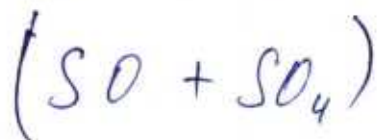


$$m = \frac{M}{n} = \frac{174}{98,45} \approx 1,76.$$

2.1. Түзілген газ қанша газ

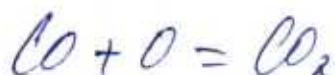
2.2. Түзілген газ қанша газ баауға.

3-мапсориша.



$$m = \frac{96}{150} = 0,64.$$

4-мапсориша.



$$m = \frac{P \cdot V_{\text{кисл}}}{T} = \frac{1,52 \text{ тл} \cdot 100 \text{ КПа}}{298 \text{ К}} \approx 0,5.$$

5-мәлсүрме.

5.1. Сілбі, Fe VIII-ші топқа орналасқан. K_2
суықпен қосылатын кұр.

5.2. B қосылыс - $MS + O_2$.

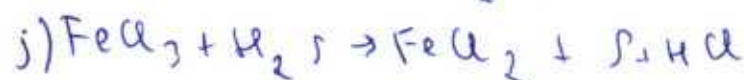
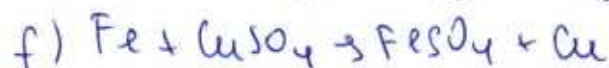
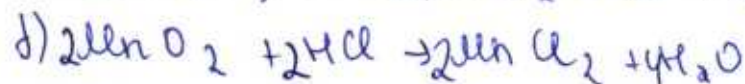
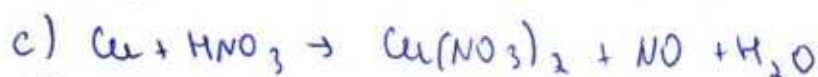
G қосылыс - $C + Si$.

5.3. Si-но 1-мин ауыспорға бөледі.

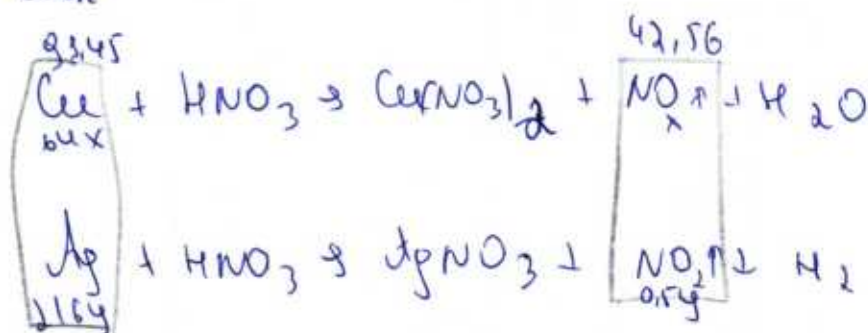
5.4. Сілбі, CO_2 беймәтәм бәләп мәбәтәдә.

5.5. $H_2SO_4 + KMnO_4 + K_4(Fe(CN)_6) =$

1-Есеп



2-Есеп



$$\begin{cases} 64 \times \text{х} + 216\text{y} = 98,45 \\ \text{х} + 0,5\text{y} = 42,56 \cdot 1/64 \end{cases}$$

$$\textcircled{1} \begin{cases} 64\text{х} + 216\text{y} = 98,45 \\ 64\text{х} + 32\text{y} = 2 \cdot 23,84 \end{cases}$$

$$184\text{y} = 2625,39$$

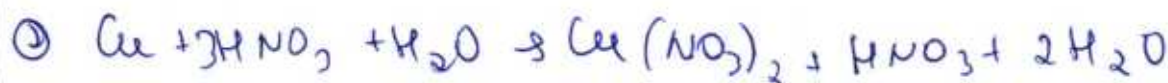
$$\text{y} = 14,268 \approx 14,3$$

$$\text{M}(\text{N}) = 142$$

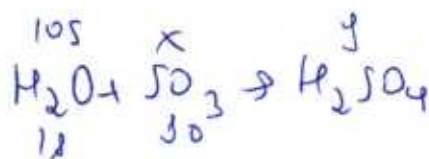
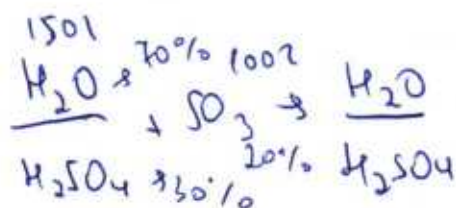
$$\textcircled{2} m(\text{Cu}) = 98,45 - 14 = 84,45$$

$$W(\text{Cu}) = \frac{84,45}{98,45} \cdot 100\% = 85,77\% \approx 86\%$$

$$W(\text{Ag}) = \frac{14}{98,45} \cdot 100\% = 14\%$$



3-Есеп



$$x = \frac{105 \cdot 80}{18} = 466,666$$

$$m(\text{H}_2\text{O}) = 150 \cdot 0,7 = 105$$

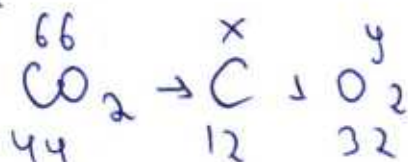
$$m(\text{H}_2\text{SO}_4) = 150 \cdot 0,3 = 45$$

$$y = \frac{466,666 \cdot 98}{98} = 571,665$$

$$m(\text{H}_2\text{SO}_4) = 571,665 - 466,666 = 104,999$$

$$W(\text{H}_2\text{SO}_4) = \frac{104,999}{150} \cdot 100\% = 69,999 \approx 70\%$$

4-Есеп



$$x = \frac{66 \cdot 12}{44} = 182$$

$$y = \frac{182 \cdot 32}{32} = 487$$

$$m = M \cdot n$$

$$m = 44 \cdot 1,5 = 662$$

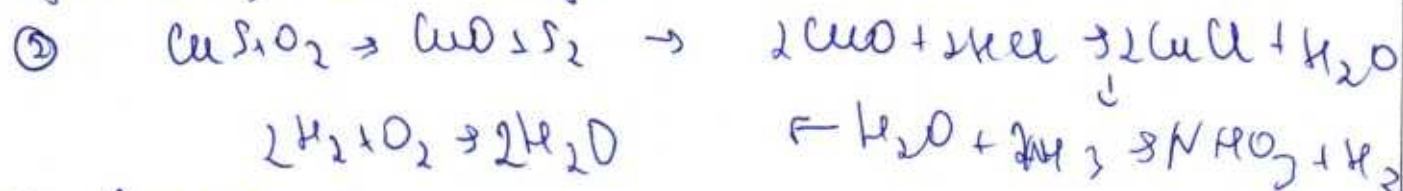
$$W(\text{C}) = \frac{18}{66} \cdot 100\% = 27\%$$

$$W(\text{O}) = \frac{48}{66} \cdot 100\% = 72,7\% \approx 73\%$$

$$m/pn: W(\text{C}) = 27\%; W(\text{O}) = 73\%$$

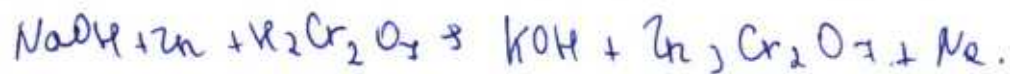
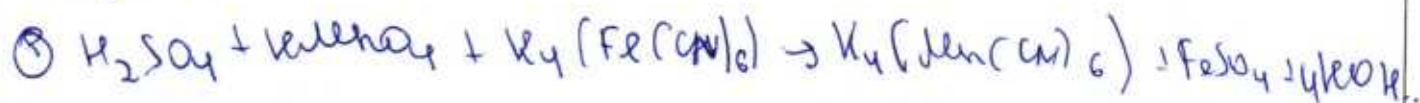
5-Есеп

① Селені сутегінің тотығу дәрежесі оттектің дәрежесінен аз болуы мұмкін келеді.

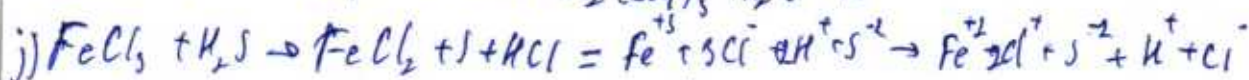
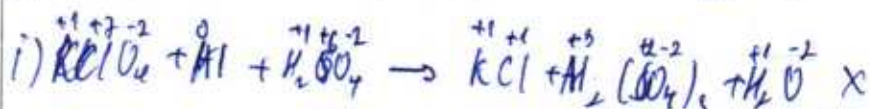
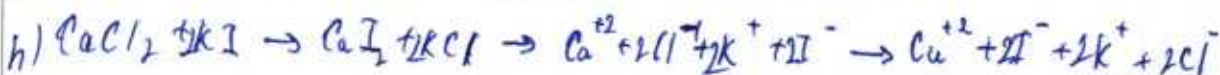
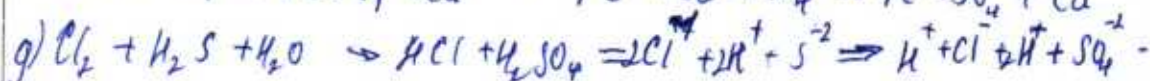
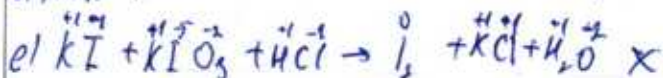
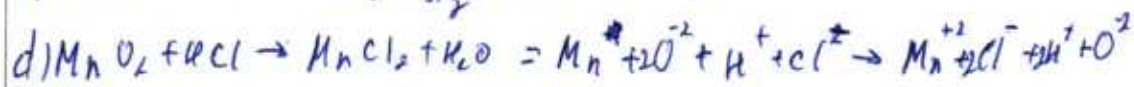
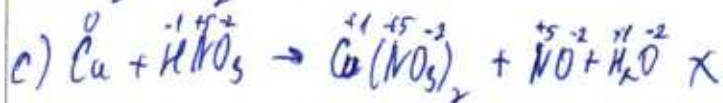
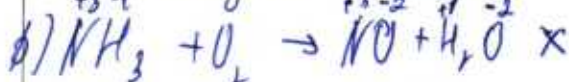
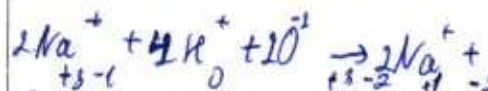
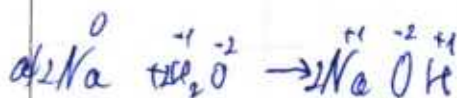


② Se-ге Ba-мен амальгама бөлек.

③ Селені қорыту тотығу дәрежесі мұндағы қорытуға тең.

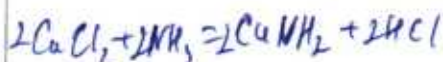
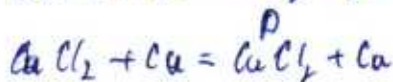
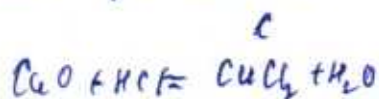
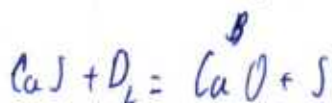


№1



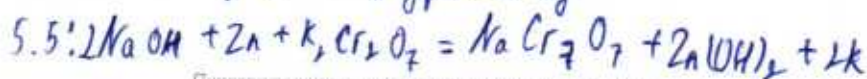
№5

5.1: Себедегі сүт емі көлемі мөлшері (+3)-дегіін толтыруға келмейсіз.

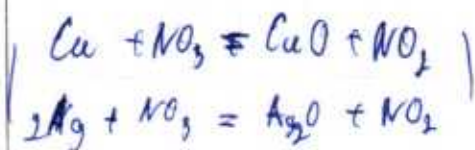


5.3: Ca да Rb мен ауыстыруға бөлен.

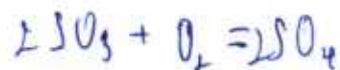
5.4: Себедегі газдың толығын дүрестігі аз



$$K=2$$



$$L=4$$



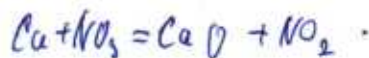
$$n(\text{SO}_4) = 2$$

$$m(\text{SO}_4) = \frac{2}{98} = 0,02$$

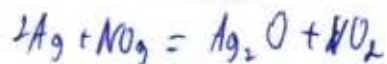
$$m(\text{Q}) = \frac{2}{3564} = 0,03$$

$$W = \frac{m}{M} = \frac{0,03}{64} \cdot 100 = 0,9\% = 50\%$$

$$K=1$$



арм сағы боліңгі



$$n(\text{CuO}) = 1$$

$$m(\text{CuO}) = \frac{1}{80} = 0,012$$

$$m(\text{Cu}) = \frac{1}{64} = 0,015$$

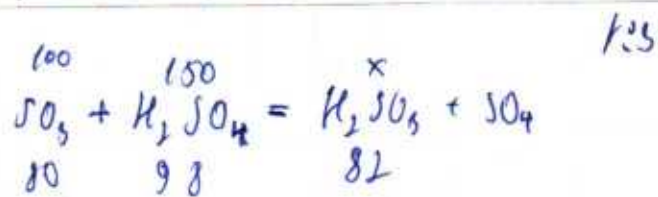
$$W = \frac{m}{M} \cdot 100 = \frac{0,015}{30} = 0,0049\%$$

$$n(\text{Ag}_2\text{O}) = 1$$

$$m(\text{Ag}_2\text{O}) = \frac{1}{232} = 0,004$$

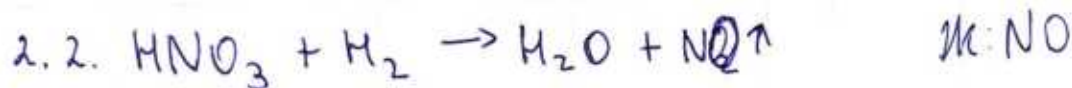
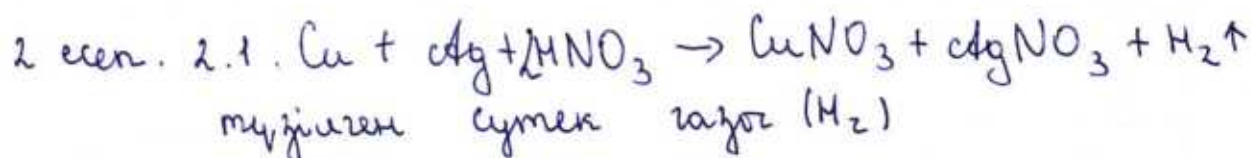
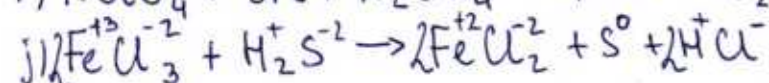
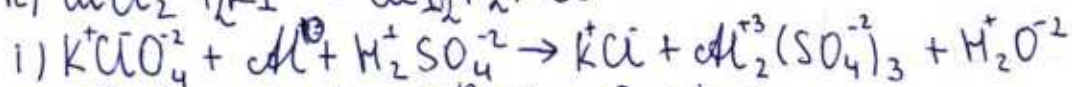
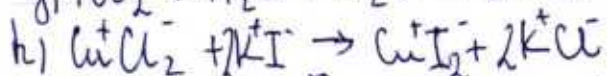
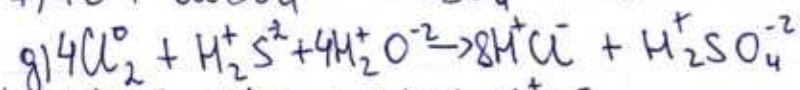
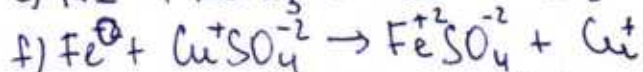
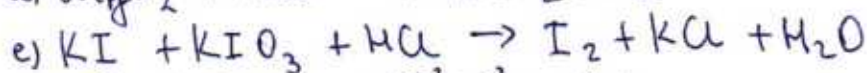
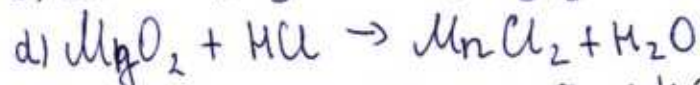
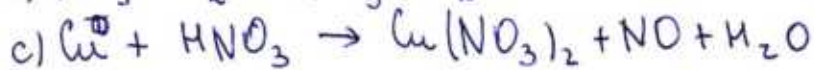
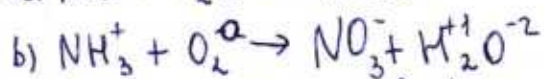
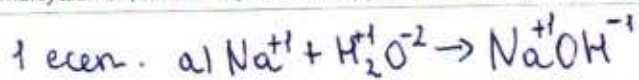
$$m(\text{Ag}) = \frac{1}{216} = 0,004$$

$$W = \frac{m}{M} \cdot 100 = \frac{0,004}{232} = 0,001\%$$



$$x = \frac{250 \cdot 82}{178} = 115.2$$

$$w = \frac{115}{82} \cdot 100 = 14\%$$



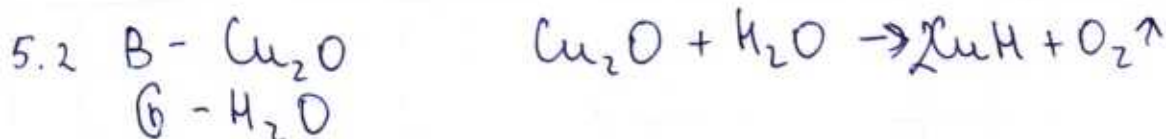
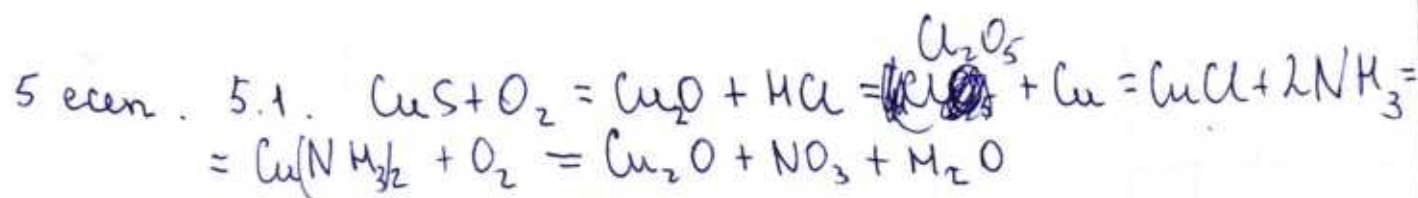
2.3. $w = \frac{63}{123.21\text{ж}} \cdot 100\% = 51.2\%$ $M_r(\text{CuNO}_3) = 63 + 12 + 16 \cdot 3 = 123.21\text{ж}$

$w(\text{AgNO}_3) = \frac{107}{167.21\text{ж}} \cdot 100\% = 64\%$ $M_r(\text{AgNO}_3) = 107 + 12 + 16 \cdot 3 = 167.21\text{ж}$

3 есеп. $100\text{г} - 100\%$
 $x\text{г} - 20\%$ $x = \frac{100 \cdot 20\%}{100\%} = 20\text{г}$ олеум

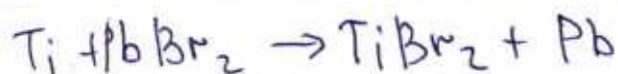
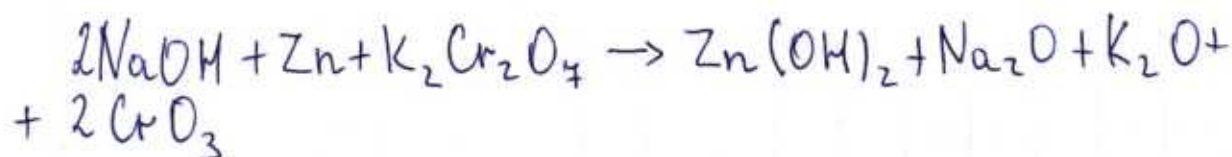
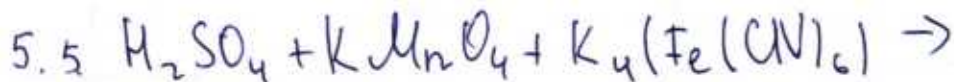
$\left(\begin{array}{l} 50 + 20 = 70\text{г} - 100\% \\ 150\text{г} - x\% \end{array} \right)$ $250\text{г} - 100\%$
 $140\text{г} - x\%$ $x = \frac{100 \cdot 140}{250} = 56\%$

4 есеп. CO_2 $M_r(\text{CO}_2) = 12 + 16 \cdot 2 = 12 + 32 = 44 \text{ г/моль}$
 $w = \frac{16 \cdot 2}{44} \cdot 100\% = 72,7\%$



5.3. Na, Ag, Ca және т.б.

5.4. Селісі электр терістілігі жоғары, тотық-
 тотықсыздану реакциясына оңай түседі.





$$2.5. M_r(\text{Cu} + \text{Hg}_2) = 63 + 107 \cdot 2 = 277$$

$$\omega(\text{Cu}) = \frac{63}{277} \cdot 100\% = 22,74\%$$

$$\omega(\text{Hg}) = \frac{214}{277} \cdot 100\% = 77,25\%$$

$$22,74\% + 77,25\% = 99,99\%$$

2.1. ymn



$$M_r(\text{H}_2\text{SO}_4) = 1 \cdot 2 + 1 \cdot 32 + 16 \cdot 4 = 98$$

$$\omega(\text{H}_2) = \frac{2}{98} \cdot 100\% = 2,04\%$$

$$\omega(\text{S}) = \frac{32}{98} \cdot 100\% = 32,6\%$$

$$\omega(\text{O}_4) = \frac{64}{98} \cdot 100\% = 65,3\%$$

$$2,04\% + 32,6\% + 65,3\% = 99,94\%$$

$$4) \text{C}_2\text{O}$$

$$\omega = \frac{p \cdot T}{p} = \frac{100 \text{ Па} \cdot 293 \text{ К}}{1,52 / \text{м}} = (19,866,66) \text{ Па} \cdot 86,66\%$$

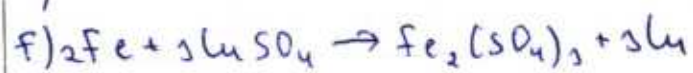
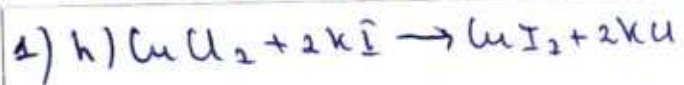
$$M_r(\text{C}_2\text{O}) = 12 \cdot 2 + 16 = 24 + 16 = 40$$

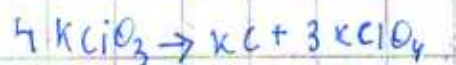
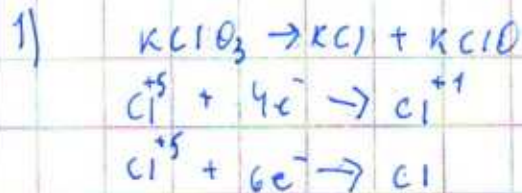
$$\omega(\text{C}_2) = \frac{24}{40} \cdot 100\% = 60\%$$

$$\omega(\text{O}) = \frac{16}{40} \cdot 100\% = 40\%$$

$$60\% + 40\% = 100\%$$

Правильный ответ жалым толтырылған / Обрешенную сторону листа не загибайте





Протекание данной реакции возможно.

1.1 d

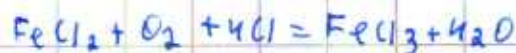
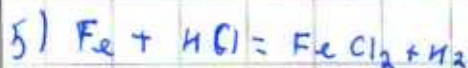
2.1 Это был газ He или нит

2.2 углекислый газ

2.3 масса Cu = 63,546, масса Ag = 107,868

3) молекулярная масса серной кислоты в растворе $\text{SO}_4 = 64$

4)

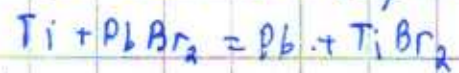
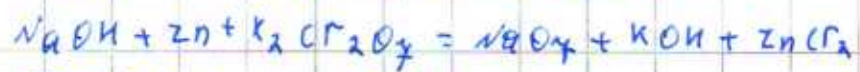
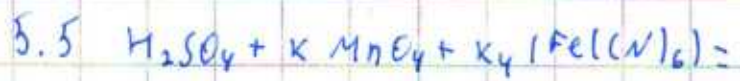


5.1 потому что водород слабый окислитель.

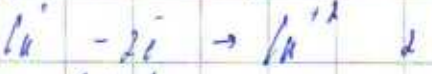
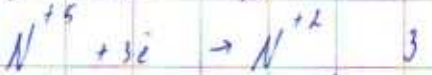
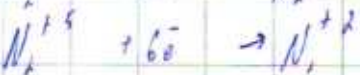
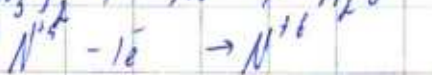
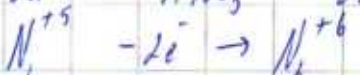
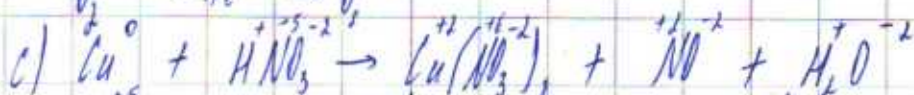
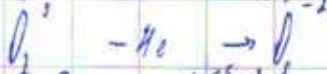
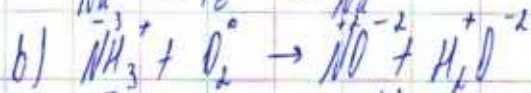
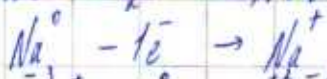
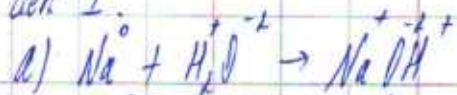
5.2

5.3 Cu может заменить на H_2

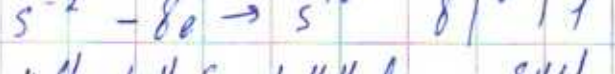
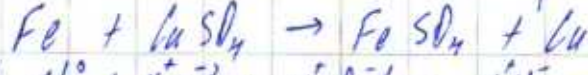
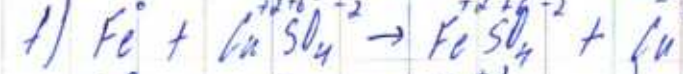
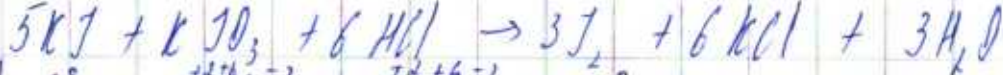
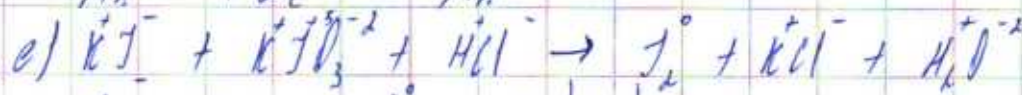
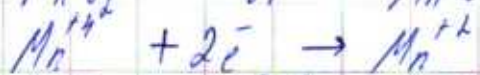
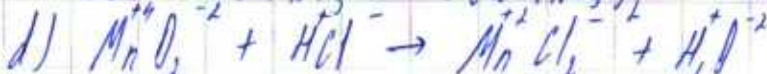
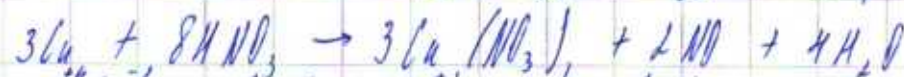
5.4

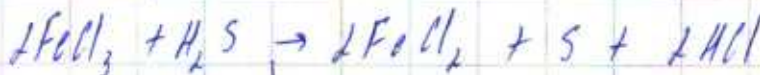
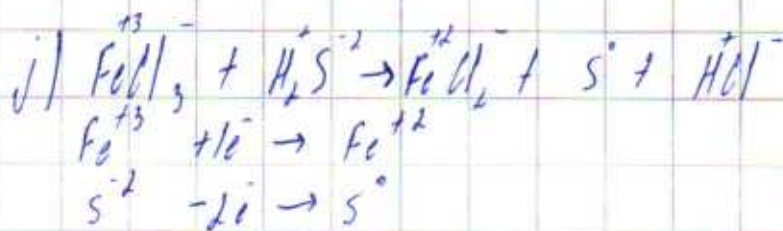


Gen 1.



$$\begin{array}{r|l|l} 3 & 6 & 2 \\ 2 & & 3 \end{array}$$





Бер 2 2.3.

Берілгені:

$$m(\text{FeCl}_3) = 98,45 \text{ г}$$

$$V_{\text{H}_2\text{S}} = 42,56 \text{ (г. моль)}$$

$$\rho_{\text{H}_2\text{S}} = 1,586$$

Мешу:

$$M(\text{FeCl}_3) = 162,5 \text{ г/моль}$$

$$W(\text{Fe}) = \frac{56}{162,5} \cdot 100\% = 34,49\%$$

$$W(\text{Cl}) = \frac{64}{162,5} \cdot 100\% = 39,4\%$$

табу керек

ауа қорықарған

$$W(\text{H}_2\text{S}) = ?\%$$

$$W(\text{S}) = ?\%$$

$$\rho_{\text{H}_2\text{S}} = \frac{42,56}{27,4} = 1,55 \text{ г/моль}$$

$$V_{\text{H}_2\text{S}} = 1,9 \cdot 1,586 = 3,014 \text{ моль}$$

2.1 Бүлінген газ мен өскірімді қосынды қосынды азот қосындының артық

2.2 Бүлінген газ мен өскірімді қосынды қосынды азот қосындының артық (NH₃)

Бер 3.

Берілгені:

$$100: 20\% \text{ азот}$$

$$150: 50\% \text{ азот қосынды}$$

Мешу:

$$\frac{100}{150} = \frac{20\%}{50\%} = 0,66\% = 0,66$$

$$0,66 - 0,66 = 0,00 \cdot 100\% = 0\%$$

$$\frac{100}{20} = 5 \quad \frac{150}{30} = 5$$

SO₃ - азот

H₂SO₄ - азот қосынды

$$M(\text{H}_2\text{SO}_4) = 98 \text{ г/моль}$$

Парақтың артық жағын толтырмаңыз / Обратную сторону листа не заполнять

$$W(H_2SO_4) = 98 \text{ г/моль} \cdot 0,66 = 64,68\%$$

$$= \frac{0,66}{98 \text{ г/моль}} \cdot 100\% = 67,1\%$$

Бер 4

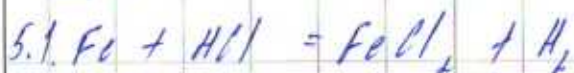
$$M(W_2) = 44$$

$$W(C) = \frac{12}{44} \cdot 100\% = 27,2\%$$

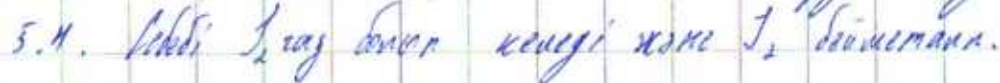
$$W(H_2) = \frac{32}{44} \cdot 100\% = 72,7\%$$

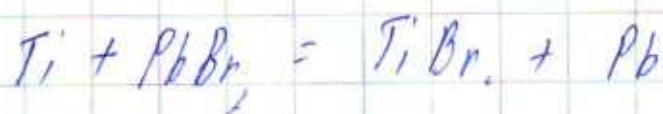
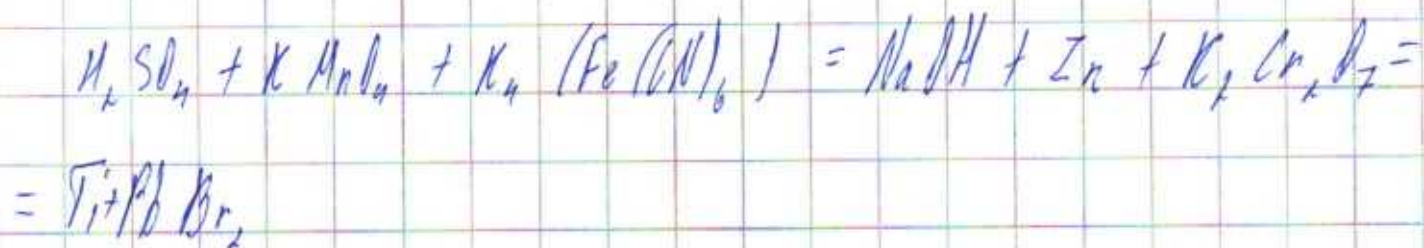
$$\frac{1,5 \text{ г/м} \cdot 100 \text{ г/м} \cdot 298 \text{ К}}{44} = 10,15 (1015,989)$$

Бер 5



Белгі бірінші реакцияда Fe II валентті өміс, Fe бірінші реакцияда II валентті. Ал екінші реакцияда Fe реакция жүйін II валентті, реакциядан кейін Fe III валентті және сүзгісі тек 1 е-ге ғана бұра алады. Ал өтпесі 2 е-ге алады.





3-есеп

Берілгені

$$m_1 = 100 \text{ г}$$

$$m_2 = 150 \text{ г}$$

$$w_1 = 20\%$$

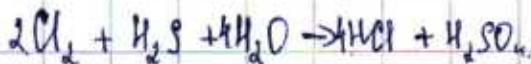
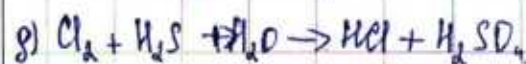
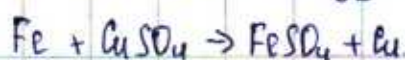
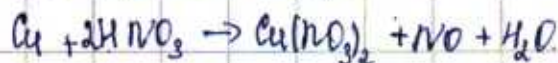
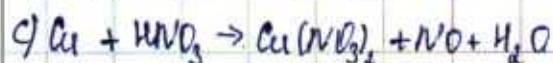
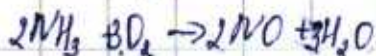
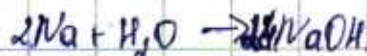
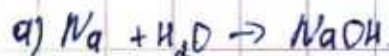
$$w_2 = 30\%$$

$$w_3 = ?$$

Шешуі:
$$w_3 = \frac{m_1 w_1}{m_2 w_2} = \frac{100 \cdot 20}{150 \cdot 30} = 0,4\%$$

Неғатан, $w_3 (\text{H}_2\text{SO}_4) = 0,4\%$

1-есеп



4-есеп



$$\rho = 1,52 \text{ г/л}$$

$$M_r(\text{CO}_2) = 12 + 16 \cdot 2 = 60$$

$$P = 100 \text{ кПа}$$

$$w(\text{C}) = \frac{12}{60} \cdot 100\% = 20\%$$

$$T = 298 \text{ К}$$

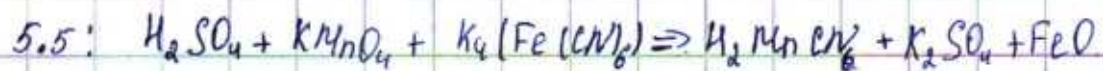
$$w(\text{O}) = \frac{48}{60} \cdot 100\% = 80\%$$

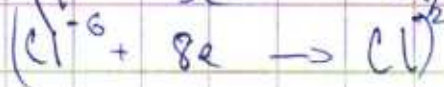
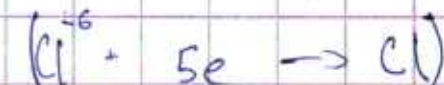
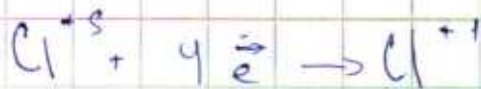
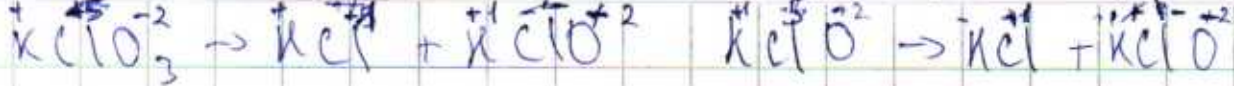
$$M_r(\text{O}_2) = 16 \cdot 2 = 32$$

$$w(\text{O}) = \frac{32}{32} \cdot 100\% = 100\%$$

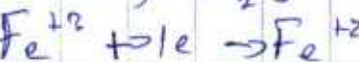
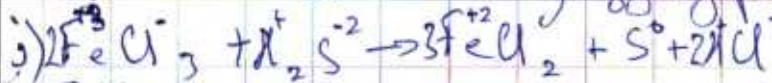
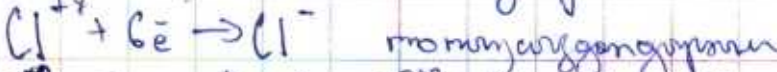
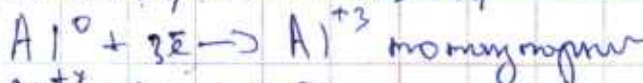
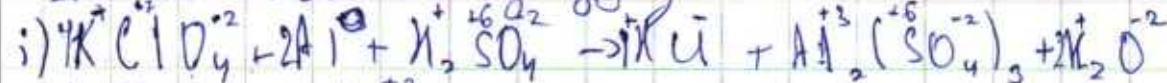
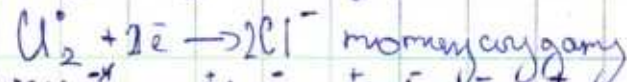
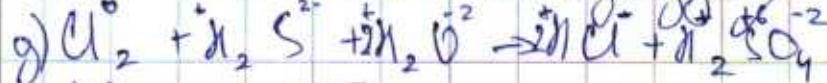
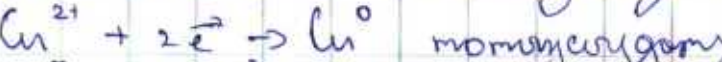
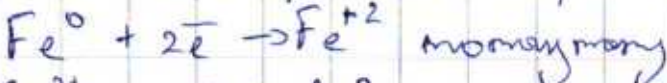
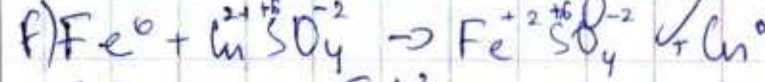
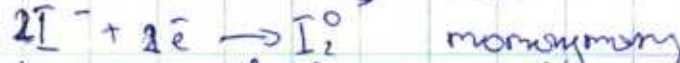
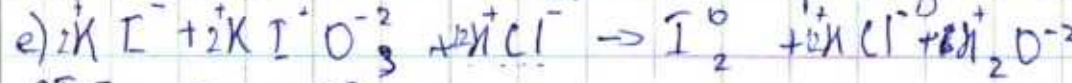
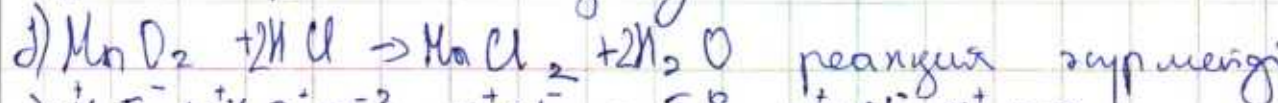
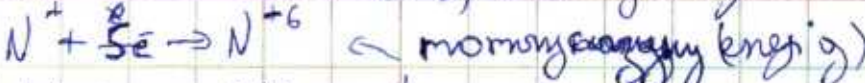
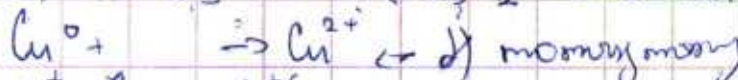
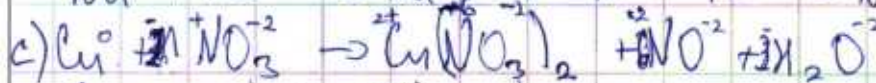
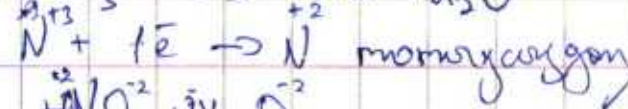
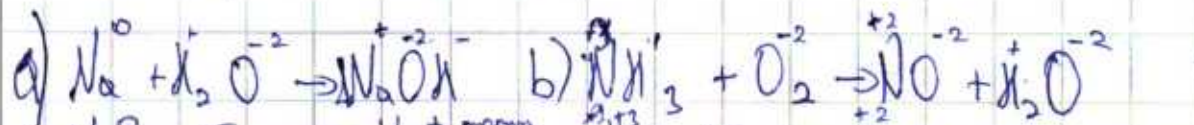
Парақтың артқы жағын толтырмаңыз / Обратную сторону листа не заполнять

5-есеп.





мысалдар



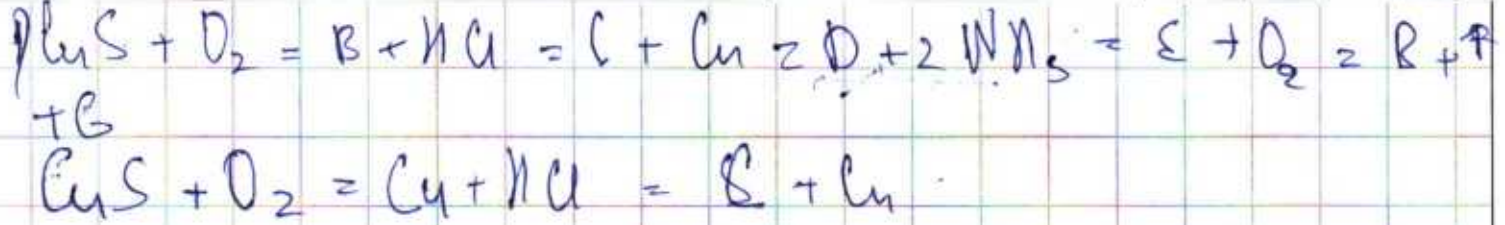
100г 20% Ойынға

150г 30% дан күйіп қалғанды еріткенді аяқтан
еріткенді күйіп қалғандықтан массаны үлестіріп

100г Σ 20%
150г Σ 30%

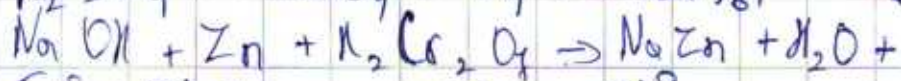
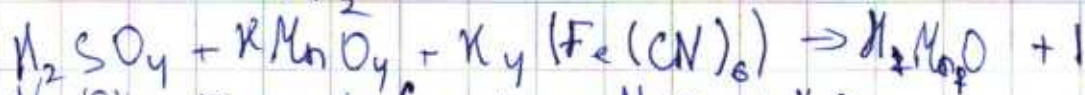
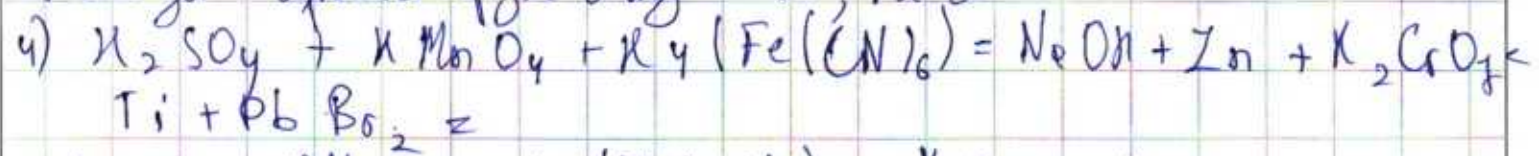
$$\frac{100 \cdot 20\%}{150 \cdot 30\%} = \frac{2000}{4500} = 100\%$$

$$\frac{30}{100} \rightarrow 100\% = 30\%$$



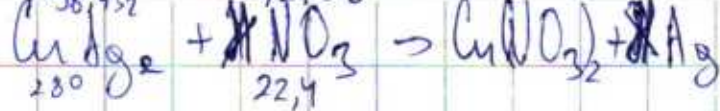
2) В-Г қосындыларын сыз:

3) Cu-ge айналыстыруға болатын Ca, Na-ге



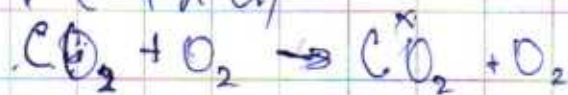
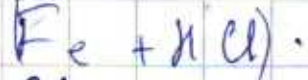
$$m(\text{CuAg}_2) = 28,4 \text{ г}$$

$$v(\text{HNO}_3) = 42,56 \text{ л}$$



$$m(\text{HNO}_3) = 1,586$$

Cu Ag



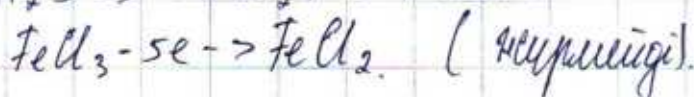
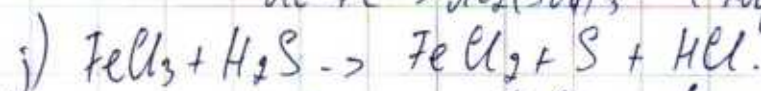
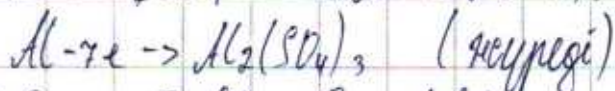
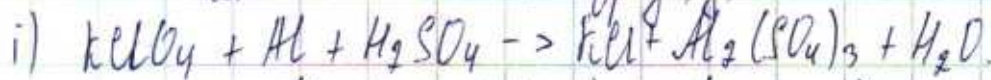
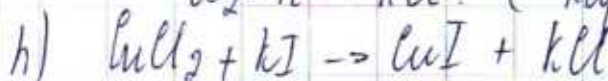
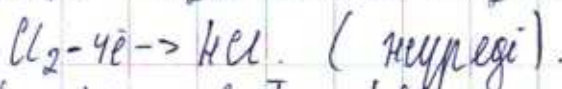
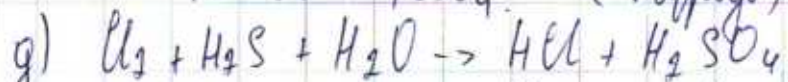
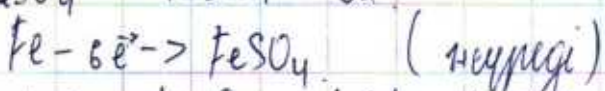
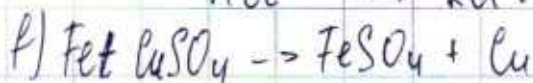
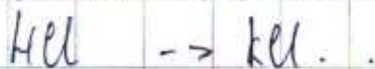
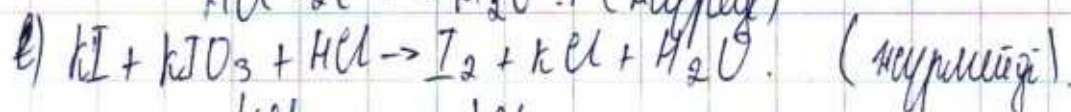
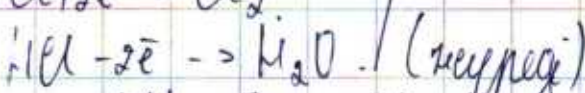
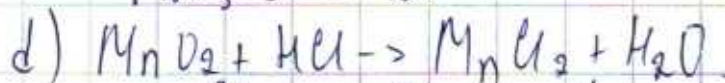
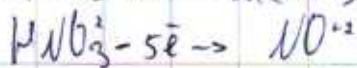
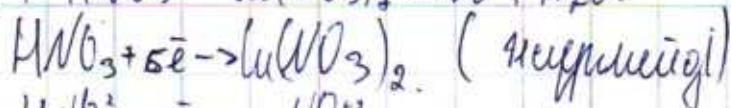
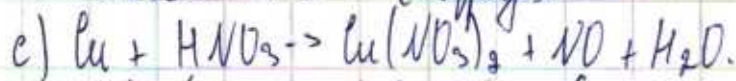
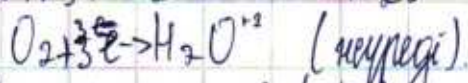
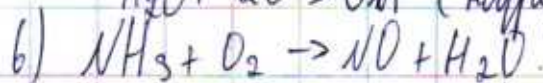
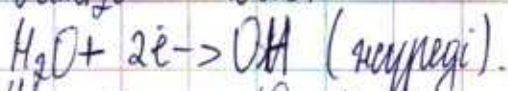
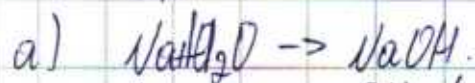
массасы: 1,5 г/л

CO₂ газ

жасын : 100 мл

температура: 298 К

Есеп 1.



Есеп 2.

$m(\text{Ag}) = 98,45\text{г}$.

$V = 42,56\text{ л}$.

$\rho = 1,586$.

$n(\text{Ag}) = \frac{98,45}{108} =$

$= 0,9$.

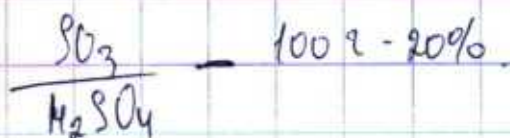
$n = \frac{m}{M_r}$

$n(\text{Cu}) = \frac{98,45}{63,5} = 1,56$.

Көрсеткіш: 2.1 -

2.3 - $n(\text{atg}) = 0,9$ $n(\text{Cu}) = 1,56$.

Есеп 3



$\text{SO}_4 - 150\% - 30\%$

Есеп 4.

$P_0 = 1,52 \text{ МПа}$

$W = P$

$- k/\text{Па}$

$t = 298 \text{ К}$

$W -$

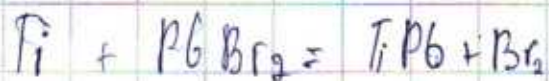
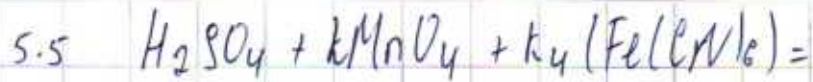
Есеп 5.



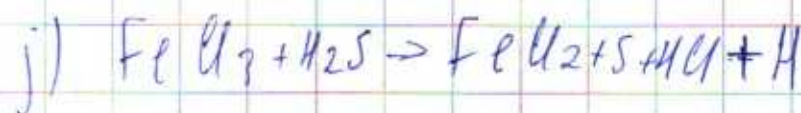
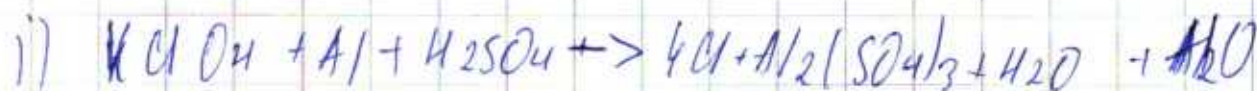
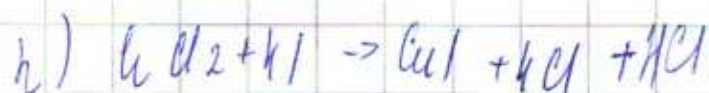
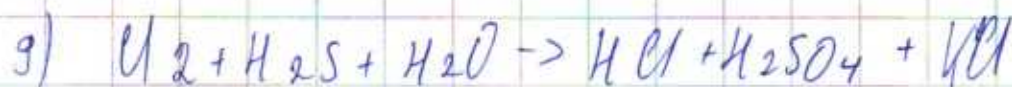
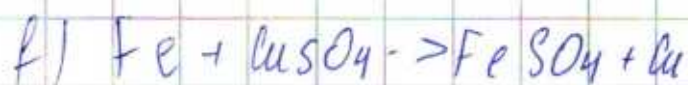
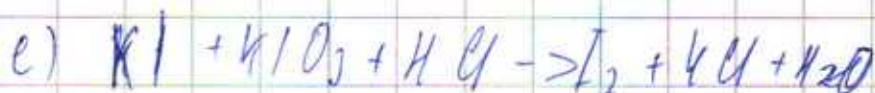
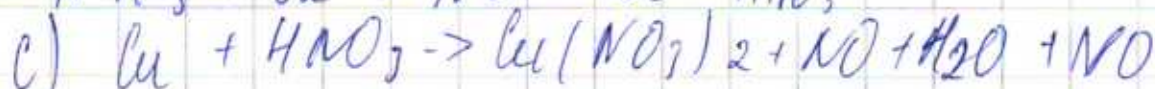
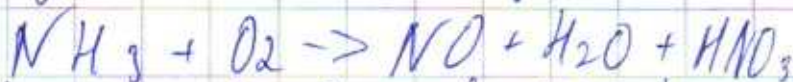
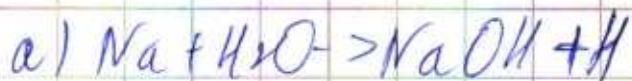
5.2

5.3. Жалпы, Хром, калий.

5.4. Сөздері оның атын ісідің, шыршытан аталың, масса-
сы көп.



№ 1



№ 2.

Берілген:

$m = 98,457$

$p = 1,586$

$\gamma_{\text{HCl}} = 22,4$

$V = 42,56 \text{ л}$

Формула

$p = \frac{m}{V} = 2,3$

$M_r(\text{Cu}) = 63,5 \quad M_r(\text{Ag}) = 108 \quad 171,5$

$\frac{\gamma_m}{V} = \frac{22,56}{22,4} = 1,9$

$$n = \frac{m}{M}$$

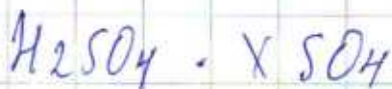
$$c = \frac{n}{V}$$

№ 3.

Берілгені:

1002 - 20%

1502 - 30%



$$M_r(H_2SO_4) = 1 \cdot 2 + 32 + 16 \cdot 4 = 98$$

98 г/моль

$$M_r(H_2SO_4) = 63.5 + 32 + 16 \cdot 4 = 63.5 + 32 + 64 = 159.5$$

№ 4

C (IV) маңғы.

яңа 0

Жауабы



$$12 + 16 \cdot 2 = 44$$

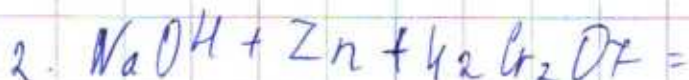
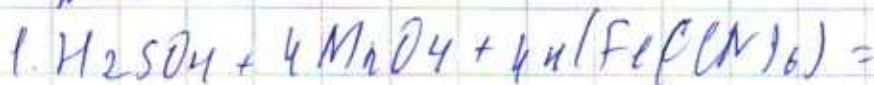
$$16 \cdot 2 = 32$$

$$p = 1,5 \text{ г/л}$$

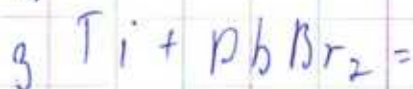
$$t = 298 \text{ К}$$

қосынды: $CO_2 + O_2$

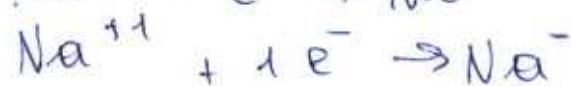
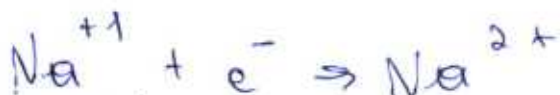
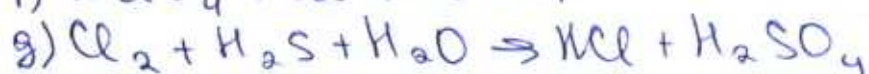
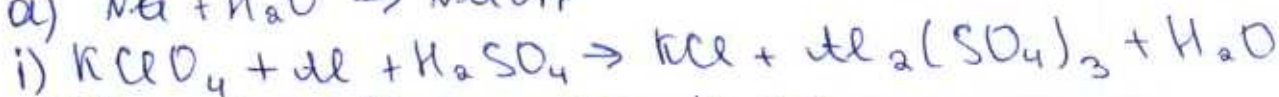
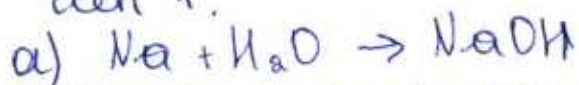
№ 5.



а



Есеп 1.



Есеп 2.

$$\text{HNO}_3 = 1 + 14 + 16 \cdot 3 = 63$$

$$\frac{98,45}{63} \cdot 100 = 156$$

$$\frac{42,56}{44,2} = 0,96$$

$$1,586 : 0,96 = 1,6$$

$$\text{CO}_2 = 12 + 16 \cdot 2 = 44$$

$$\frac{42,56}{44} = 0,96$$

Есеп 3.

$$\frac{20}{100} = 0,2$$

$$\frac{30}{150} = 0,2$$

$$0,2 \cdot 98 = 19,6$$

$$\text{H}_2\text{SO}_4 = 1 \cdot 2 + 32 + 16 \cdot 4 = 98$$

$$\text{SO}_4 = 32 + 16 \cdot 4 = 96$$

Есеп 4.

$$\text{CO}_3 + \text{O} = \text{CO}_2 \quad \text{CO}_2 = 12 + 16 \cdot 2 = 48$$

$$\text{CO}_3 = 12 + 16 \cdot 3 = 60$$

$$\frac{1,5}{298} \cdot 100 = 0,50$$

Есеп 5.

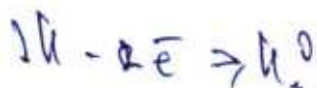
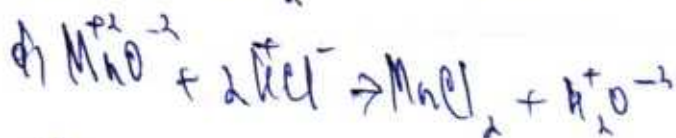
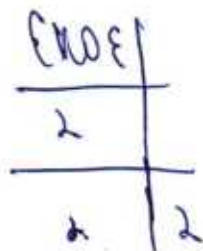
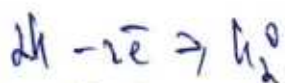
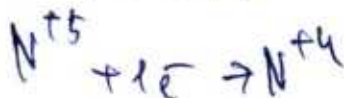
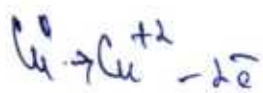
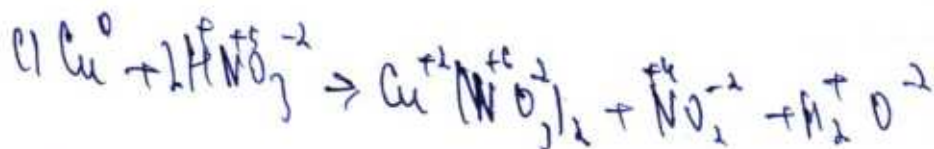
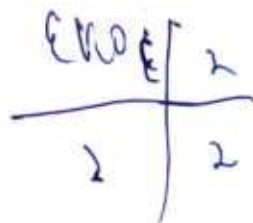
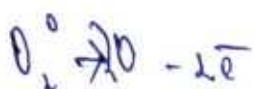
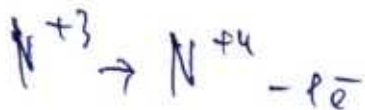
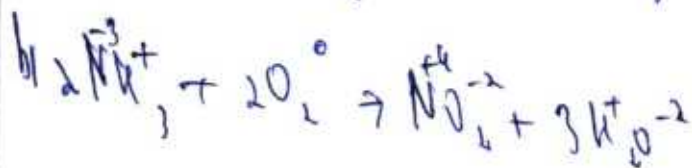
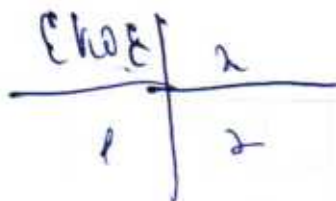
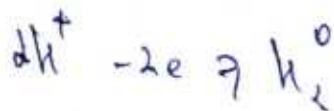
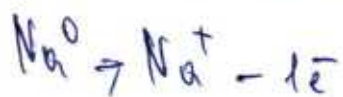
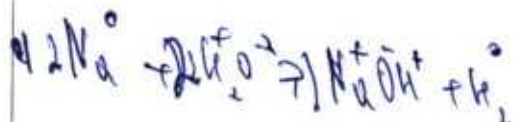
$$\text{H}_2\text{SO}_4 + \text{K}_2\text{MnO}_4 + \text{K}_4(\text{Fe}(\text{CN})_6) =$$

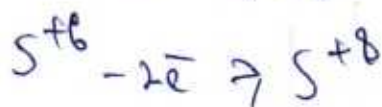
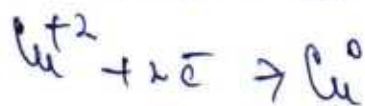
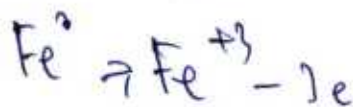
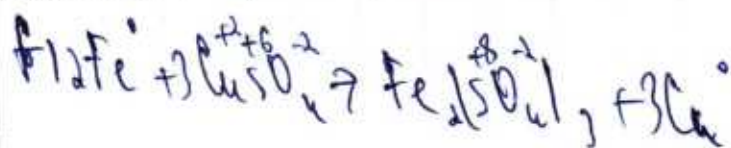
$$\text{NaOH} + \text{Zn} + \text{K}_2\text{Cr}_2\text{O}_7 =$$

$$\text{K}_2\text{Cr}_2\text{O}_7 = 39 \cdot 2 + 51 \cdot 2 + 16 \cdot 7 =$$

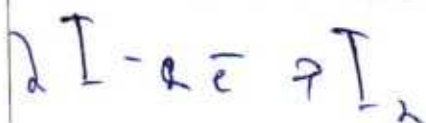
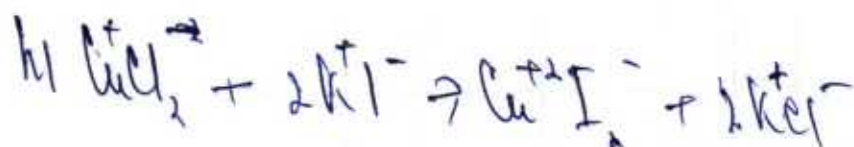
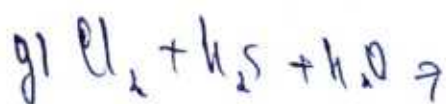
$$\text{Ti} + \text{PbBr}_2 =$$

№ 1

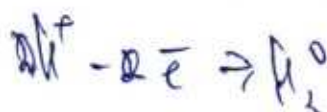
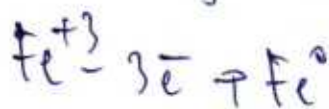
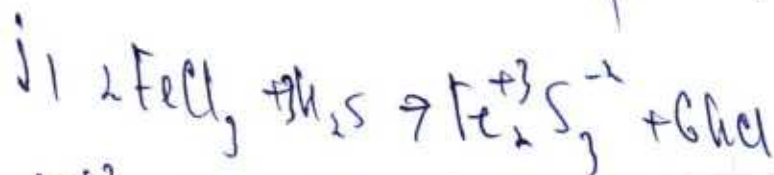




Электрон	2
6	3
6	3



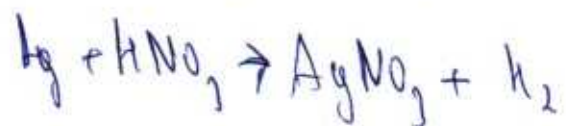
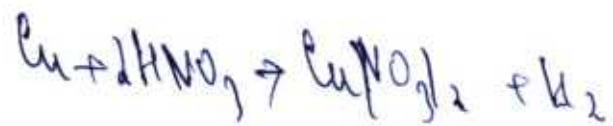
Электрон	2	1
1	2	1



Электрон	2
6	3

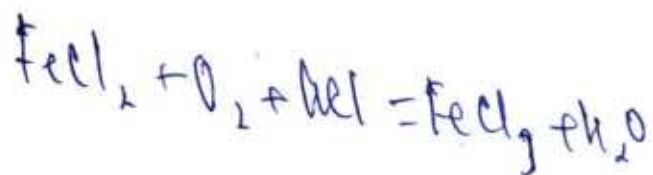
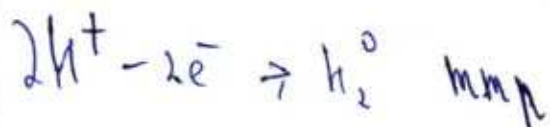
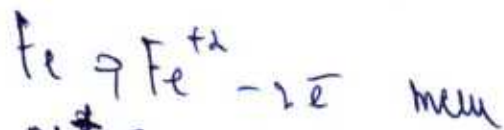
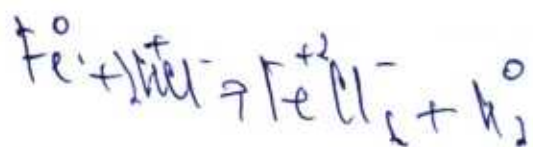
2 есеп

2.1

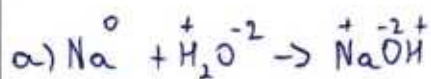


2.2

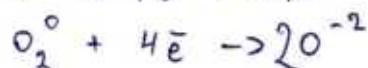
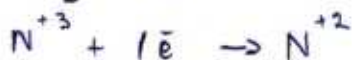
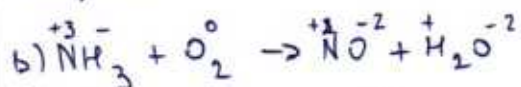
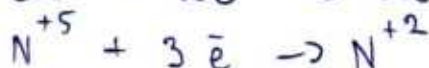
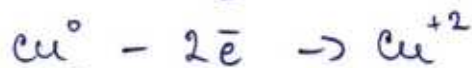
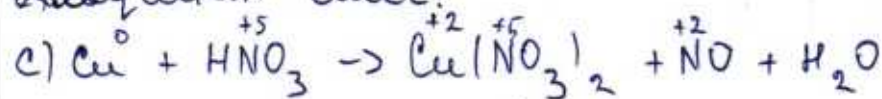
№5 есеп



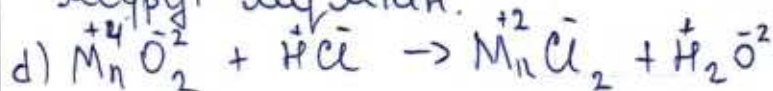
1 есеп



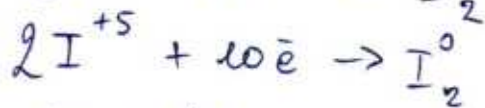
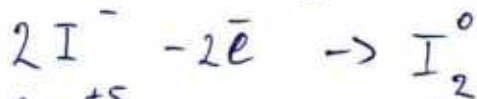
мүмкін емес!

~~мүмкін емес!~~

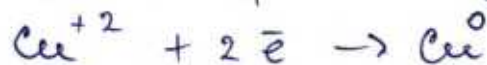
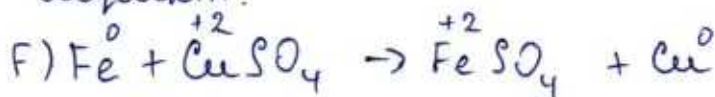
жесуругі мүмкін.



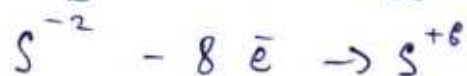
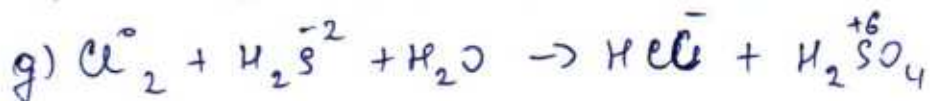
мүмкін емес!



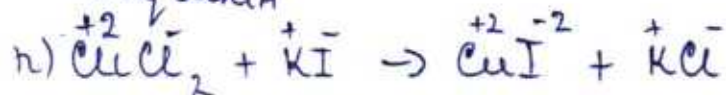
мүмкін.



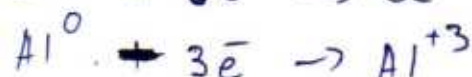
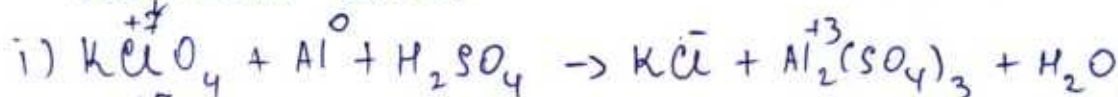
мүмкін.



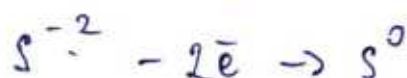
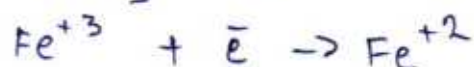
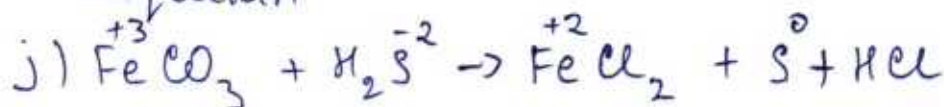
мүмкін



мүмкін емес



мүмкін



мүмкін.

Жауабы: c, e, f, g, i, j нөмерленген реакциялер жүруі мүмкін, ал a, b, d, k нөмерленген реакциялер жүруі мүмкін емес!

2 есеп

21. Егер түзілген газдың ауаның салыстырмалы тығыздығы 1,586 болса, оя бұл газдың массасы 46 екенін білдіреді. Осы жеткілікті арасында бұл газ NO_2 екенін біле аламыз.

2.2. Егер сұйыттың азот қосындысының концентрациясы азот қосындысының орнына бұл металлдар қоспасымен әрекеттескенде H_2 , яғни сутек газы бөлініп шықар еді.

3 есеп

1. Біз ең біріккен олеуанның ішіктері күкірт қосындысының ~~ішіктері~~ массасын тауып аламыз.

$$100_2 \cdot \frac{80}{100} = 80_2$$

2. күкірт қосындысы еріткізсінен күкірт қосындысының массасын табамыз

$$150_2 \cdot \frac{30}{100} = 45_2$$

3. күкірт қосындысы мен барлық заттарды қосып, күкірт қосындысының массасын табамыз

$$80_2 + 45_2 = 125_2$$

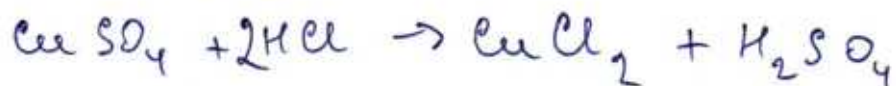
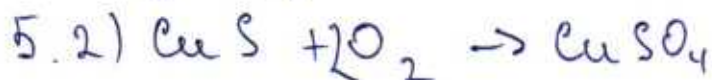
$$150_2 + 100_2 = 250_2$$

$$\omega(H_2SO_4) = \frac{125}{250} \cdot 100\% = 50\%$$

Жауабы: 50%

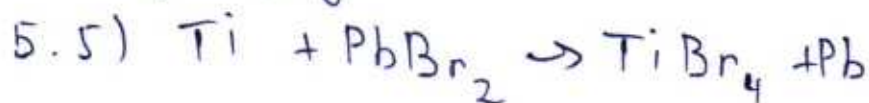
5 есеп

5.1) Себебі сутек тотықтырғыш та, тотықсыздандырғыш та қозғалып көрсетеді, ол жеңіл тотықтырғыш болса, да, теміррі +3 дәйін тотықтыру 2 этаптан аз уақыт жұмсалмайды.

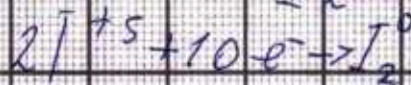
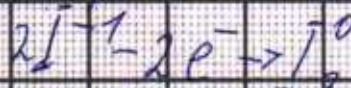
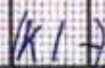
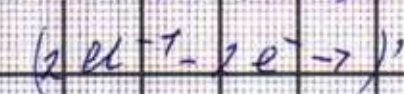
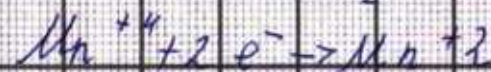
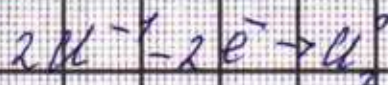
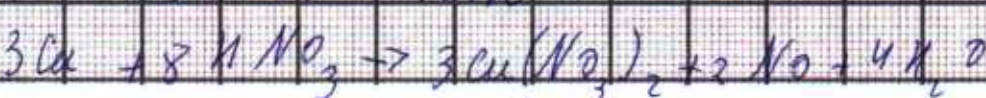
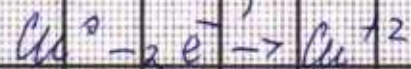
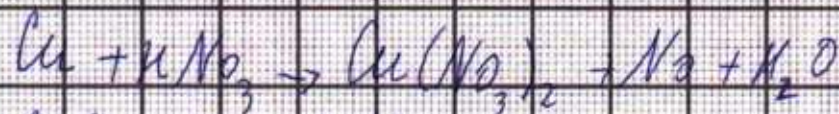
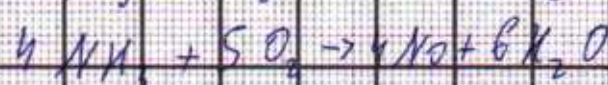
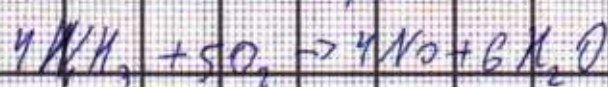
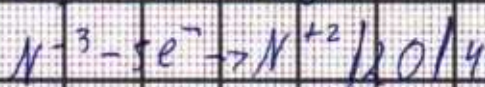
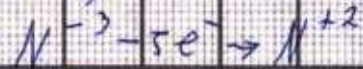
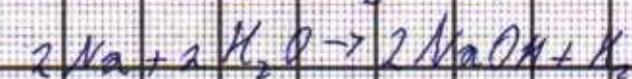
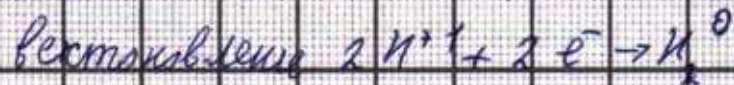
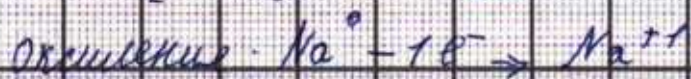
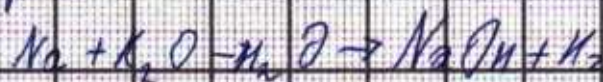


5.3) Натриймен

5.4) Себебі Cu^{+2} - немесе I_2^- деңгейдегі тотықтырғыш



WT
p.p.s



Жүзесен

$$M = D \cdot M = 1,5 \cdot 29 = 43,5 \text{ г/моль}$$

радіоактив (IV)

$$M = x \cdot 44 + (1-x) \cdot 32 = 32 + 12x = 43,5 \Rightarrow x = 0,95833$$

мол. 1,5016

$$w_{\text{CO}_2} = \frac{0,95833 \cdot 44}{43,5} \approx 0,96955$$

көміртегі оксиді

t = 298 K

Жүзесен1) NO_2 газы түзіледі [яғни азот диоксиді]

$$M_{\text{газ}} = 1,586 \cdot 29 \approx 45,99 \approx 46 \text{ г/моль}$$

$$M_{\text{сма}} = 98,42$$

$$M_{\text{газ}} = 46,02$$

$$M_{\text{NO}_2} = 46,02 - 0,925 \cdot 46,02$$

$$x + y = 98,45$$

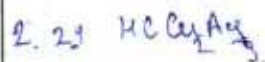
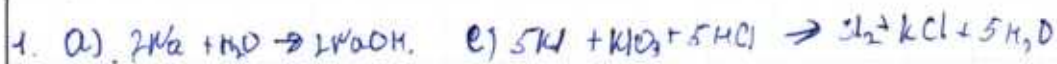
$$\frac{2x}{63,5} + \frac{y}{108} = 0,925$$

$$x \approx 0,6042 \text{ (с.м.)} \quad y \approx 97,8458 \text{ г}$$

$$x + y = 98,45$$

$$\frac{2x}{63,5} + \frac{y}{108} = 0,925$$

$$\% \text{ Cu} = \frac{0,6042 \cdot 100}{98,45} \approx 0,613\% \quad \% \text{ Ag} = 99,387\%$$



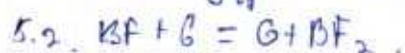
2.3. $Cu = 52,54$ $Ag = 50,72$

3. массалық үлесі 56,6%

4. ~~не~~

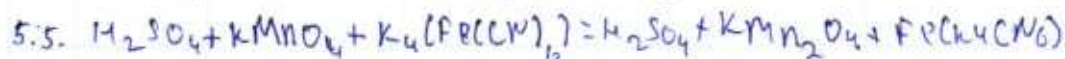
4. массалық үлес. 42,2%

5. 5.1. мәні дұрыс болмайды.

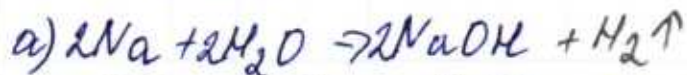


5.3. В, D. мен ақпаратқа бөледі.

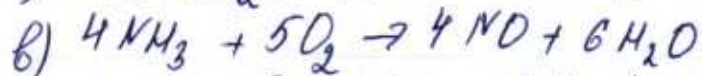
5.4. I - бұл элементтің эквиваленті.



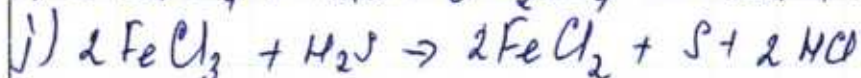
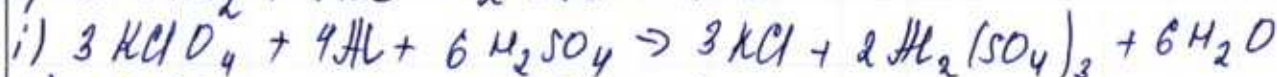
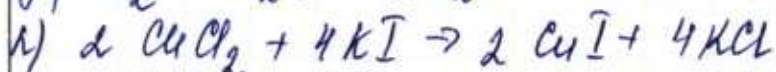
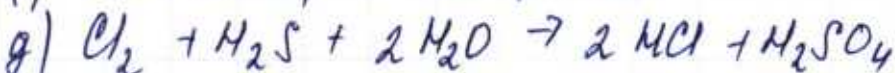
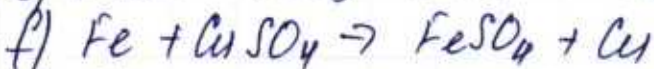
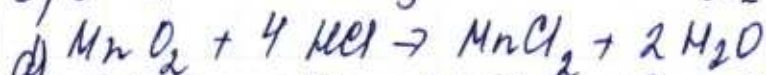
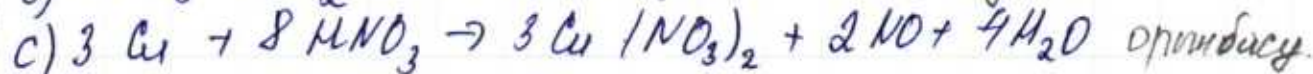
N1 Бсең



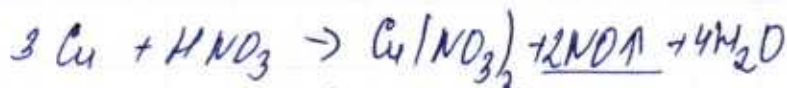
қоспаны



алмау



N2 Бсең

 $m(\text{Cu}) - 98,45 \text{ г}$ $M(\text{Ag}) - 1,586 \text{ г}$ $V(\text{Ag}) - 42,56 \text{ л}$ 

$$M(\text{Ag}) = 1,586 \cdot 292 / \text{моль} = 462 / \text{моль}$$

$$M(\text{NO}) = 14 + 16 = 30 \text{ г/моль}$$

$$M(\text{NO}_2) = 14 + 16 \cdot 2 = 46 \text{ г/моль}$$

$$M(\text{N}_2) = 14 \cdot 2 = 28 \text{ г/моль}$$

$$Vm = 22,4 \text{ л}$$

$$n(\text{NO}_2) = \frac{42,56 \text{ л}}{22,4 \text{ л/моль}} = 1,9 \text{ моль}$$

$$m = 44,4 + 53,9 = 98,3$$

$$w(\text{Cu}) = \frac{44,4}{98,3} \cdot 100\% = 45\%$$

$$w(\text{Ag}) = \frac{53,9}{98,3} \cdot 100\% = 54\%$$

Жауап: $w(\text{Cu}) = 45\%$; $w(\text{Ag}) = 54\%$

Парақтың артқы жағын толтырмаңыз / Обратную сторону листа не заполнять

N3 Есеп

1002 — 20%

1502 — 30 %

202

452

$$m = 1002 + 1502 = 2502$$

$$m = 20 + 452 = 652$$

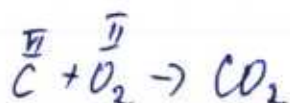
$$w = \frac{652}{2502} \cdot 100\% = 26$$

N4 Есеп

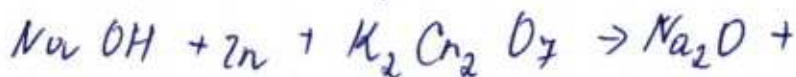
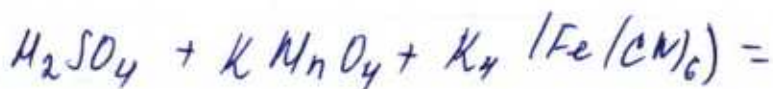
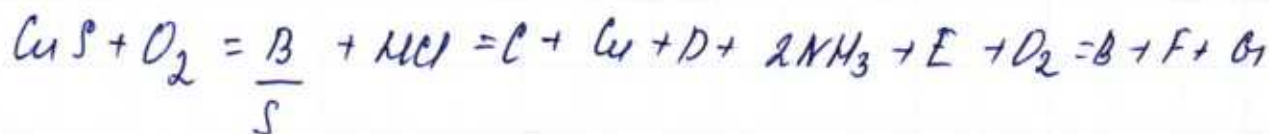
Берілгені:

1,5 г н

100 кПа

 $t^{\circ} - 298 \text{ K}$ 

N5



№1.

$\text{KClO}_3 \rightarrow \text{KCl} + \text{KClO}$ реакциясы жүзуге мүмкін емес, себебі



$\text{Cl}^{+5} + 6\text{e}^- \rightarrow \text{Cl}^-$ еті процесті тоғызғандану болып тұр. Реакция жүзуге үшін тоғыз иен тоғызғанду процестері. бұл мезгілде жүзуге заңды.

a) $\text{Na} + \text{H}_2\text{O} \rightarrow \text{NaOH}$ реакциясы жүзуге мүмкін

b) $\text{NH}_3 + \text{O}_2 \rightarrow \text{NO}^- + \text{H}_2\text{O}^+$ реакциясы жүзуге мүмкін.

c) $\text{Cu} + \text{HNO}_3 \rightarrow \text{Cu}^{2+}(\text{NO}_3)_2 + \text{NO}^+ + \text{H}_2\text{O}^-$ реакциясы жүзуге мүмкін

d) $\text{MnO}_2 + \text{HCl} \rightarrow \text{MnCl}_2 + \text{H}_2\text{O}^-$ реакция жүзуге мүмкін емес.

e) $\text{KI} + \text{KIO}_3 + \text{HCl} \rightarrow \text{I}_2 + \text{KCl}^+ + \text{H}_2\text{O}^-$ реакция жүзуге мүмкін.

f) $\text{Fe} + \text{CuSO}_4 \rightarrow \text{FeSO}_4^+ + \text{Cu}^+$ жүзуге мүмкін

g) $\text{Cl}_2 + \text{H}_2\text{S} + \text{H}_2\text{O} \rightarrow \text{HCl}^+ + \text{H}_2\text{SO}_4^-$

h) $\text{CuCl}_2 + \text{KI} \rightarrow \text{CuI}^+ + \text{KCl}^-$ жүзуге мүмкін

i) $\text{KClO}_4 + \text{Al} + \text{H}_2\text{SO}_4 \rightarrow \text{KCl} + \text{Al}_2(\text{SO}_4)_3 + \text{H}_2\text{O}^-$ жүзуге мүмкін.

j) $\text{FeCl}_3 + \text{H}_2\text{S} \rightarrow \text{FeCl}_2 + \text{S}^+ + \text{HCl}^+$ жүзуге мүмкін.

№2

Берілгені:

$$m(\text{Cu}) = 98,45 \text{ г}$$

$$V_{\text{газ}} = 42,56 \text{ л (н.м.)}$$

$$m_{\text{газ}} = 1,586 \text{ г}$$

Ш/к: қандай газ?

сұйыттылан (N) қосылған қосымша қандай газ түзіледі?; Машиналық қат.

сұйыттылан қосылған қосымша газ түзіледі.

$$M = \frac{98,45 \cdot 42,56}{1,586} = 88,9$$

Жауабы: Массалық үлесі - 88,9

№3.

Берілгені

$$m(\text{Димур}) = 100 \text{ г}$$

$$N = 20\%$$

$$m(\text{S}) = 150 \text{ г}$$

$$N = 30\%$$

Ш/к: N

$$\text{Шешуі: } M_1 = \frac{100}{2} \cdot 20\% = 10$$

$$M_2 = \frac{150}{2} \cdot 30\% = 22,5$$

Жауабы:

№4.

$$C(\text{IV}) + O$$

$$m_{\text{газ}} = 1,52 \text{ л}$$

$$p_{\text{газ}} = 100 \text{ кПа}$$

$$t = -298 \text{ К}$$

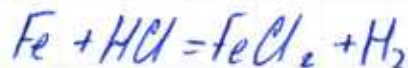
Ш/к: M

Шешуі:

$$\frac{100 \cdot 1,5}{298} = 0,50$$

Жауабы: Массалық үлесі - 0,50.

№5.



1-ші реакцияда тотықтыратын сүтпей, екіншісінде оттегі, және оны сүтпеймен тікелей Fe+3-ке дейін тотықтыруға бомайды. Себебі 'тотықу мен тотықсыздану'.

Реакция тізбелі: $\text{CuS} + \text{O}_2 = \text{B} + \text{HCl} = \text{C} + \text{Cu} = \text{D} + 2\text{NH}_3 = \text{E} + \text{O}_2 = \text{B} + \text{F} + \text{G}$

5.2 B-G



5.3. Cu-ға Zn алмастыруға болады.

5.4 Себебі иртігі затта реакцияға түседі йодқа боялады.

5.5.

