

Задача 1.

1. Неизвестный металл - Mg. $\omega(\text{Mg}) = 1,02 \text{ моль}$. $(\omega(\text{Mg})) = \frac{m}{M} = \frac{24,81 \text{ моль}}{24,802} = 1,02$
2. $\text{KOH} = 0,25 \cdot 1,185 = 7,625 \text{ г/мл}$. $V(\text{KOH}) = 7,625 : 1000 = 0,0076 \text{ л}$.

1.1.	1.2.
$\omega(\text{Mg}) = 1,02 \text{ моль}$	$V(\text{KOH}) = 0,0076 \text{ л}$

Задача 2

1. Металл X = Zn сульфид A = Zn_2SO_3
 $\text{Zn} + \text{H}_2\text{SO}_3 = \text{Zn}_2\text{SO}_3 + \text{H}_2$

2.1.	2.2.	2.3.	2.4.
X = Zn A = Zn_2SO_3	-	% 3кг/л	14 лет \rightarrow 1930г

2. $2\text{Zn}_2\text{SO}_3 + \text{H}_2\text{O}_3 = \text{H}_2\text{SO}_3 + 2\text{Zn}_2\text{O}_3$
3. $M_{\text{KOH}} = 0,003$; $0,001 = 3 \text{ кг/л}$
4. $20 : 1,2 = 14 \text{ лет}$ $1916 + 14 = 1930$

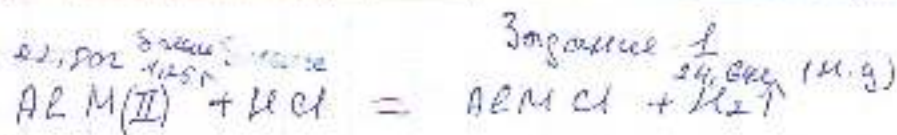
Задача 3

1. $2\text{I}_2 + \text{Na}_2\text{S}_2\text{O}_3 = \text{I}_2 + \text{Na}_2\text{S}_4\text{O}_6$
2. $2\text{NaBr} + \text{NaBrO}_3 + \text{H}_2\text{SO}_4 = 2\text{NaBrO}_3 + \text{O}_3 + \text{H}_2\text{SO}_4$
3. $4\text{KCrO}_2 + \text{Cl}_2 + \text{KOH} = 2\text{K}_2\text{CrO}_4 + \text{Cl}_2\text{OH} + \text{K}$
4. $2\text{CrCl}_3 + \text{KNO}_3 + 2\text{K}_2\text{CO}_3 = 2\text{K}_2\text{CrO}_4 + \text{KNO}_2 + \text{CO}_2 + 2\text{KCl}$
5. $\text{C}_6\text{H}_{13}\text{N} + 4\text{HNO}_3 = 2\text{CO}_2 + \text{H}_2\text{O} + \text{NO}_2 + \text{N}_2$

Задача 4

1. $m = M \cdot n$. $m = 65,8 + 11,4 = 77,2 \text{ г} = 0,0772 \text{ л}$
2. $\omega(\text{Cl}) = \frac{M}{m} = 35,45 / 0,281 = 55\%$
- 3.1. $\text{MgCl}_2\text{OH}_7 \xrightarrow{300^\circ} \text{A} (\text{Mg}(\text{OH}_2))$
- 3.2. $\text{A} + \text{H}_2\text{SO}_3 \rightarrow \text{Mg}_2\text{SO}_3 + \text{OH}_2$
- 3.3. $\text{Mg}_2\text{SO}_3 + \text{OH}_2 + \text{Ag}(\text{NO}_3) \rightarrow \text{Mg}(\text{NO}_3) + \text{Ag}_2\text{SO}_3 + \text{OH}_2$
- 3.4. $\text{Mg}(\text{NO}_3) + \text{Ag}_2\text{SO}_3 + \text{OH}_2 \rightarrow \text{Mg}(\text{OH}) + \text{Ag}(\text{NO}_3) + \text{SO}_3$

Формула в-ва A = $\text{Ag}(\text{NO}_3)$



Қалың

M-?

 $w(\text{M})$ селесі - ?

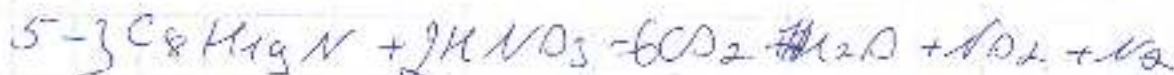
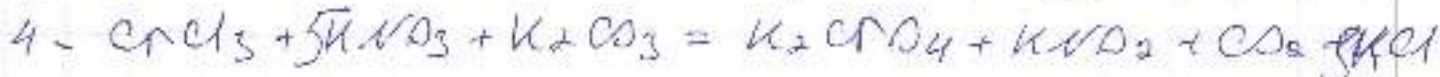
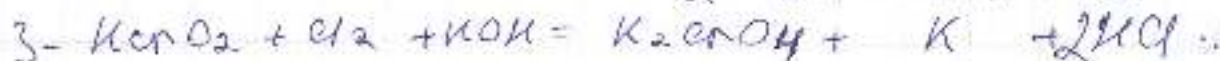
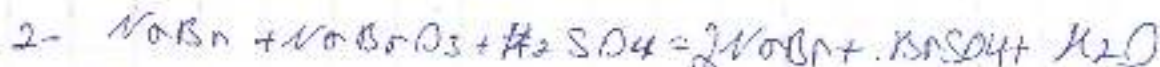
$$M = 22,80 \cdot 1,25 = 28,5 \text{ г}$$

$$w(\text{селесі}) = \frac{m(\text{M})}{m(\text{техн})} = \frac{28,5}{22,80} = 12,5\%$$

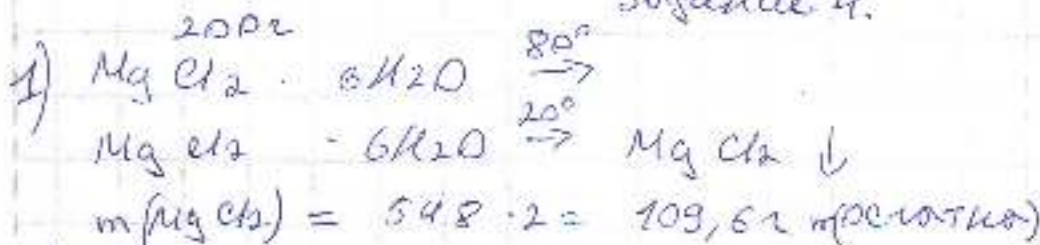
$$= \frac{12,5}{100} = 12,5\%$$

Жауап: w селесі $12,5\%$

Задача 3



Задача 4.



$$2) w(\text{Cl}) = 50\%$$

Задача 2

1) 90 мл селесі K_2S (он қоспасы мен селесі)



$$3) 156 \text{ г/селе}$$

4) B 1966 г/селе (нормалық қоспасы мен селесі)