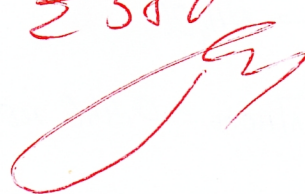


$$\begin{array}{r} 1/2/3/4/5/6/7/8/9/10 \\ \hline 6/6/1/-9/10/6/0/6/14 \end{array}$$

$\Sigma 585$


① $m(\text{MgZn}_2(\text{PO}_4)_2 \cdot 4\text{H}_2\text{O}) = 1000\text{г} \cdot 0,8 = 800\text{г}$

$$n(\text{MgZn}_2(\text{PO}_4)_2 \cdot 4\text{H}_2\text{O}) = \frac{800\text{г}}{416\text{г/моль}} = 1,923\text{ моль}$$

$$n(\text{Zn}) = 2n(\text{MgZn}_2(\text{PO}_4)_2 \cdot 4\text{H}_2\text{O}) = 3,846\text{ моль}$$

$$m(\text{ZnO}) = 1000\text{г} \cdot 0,15 = 150\text{г}$$

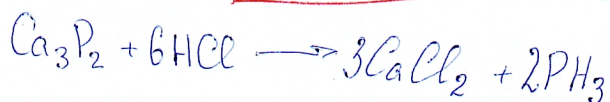
$$n(\text{ZnO}) = \frac{150\text{г}}{81\text{г/моль}} = 1,85\text{ моль}$$

$$n(\text{Zn}) = n(\text{ZnO}) = 1,85\text{ моль}$$

$$m(\text{Zn})_{\text{общ}} = (1,85\text{ моль} + 3,846\text{ моль}) \cdot 65\text{г/моль} = 370,24\text{г}$$

$$w(\text{Zn}) = \frac{370,24\text{г}}{1000\text{г}} \cdot 100\% = 37,024\% \quad \text{Ответ: } w(\text{Zn}) = 37,024\%$$

② I вещество - Ca_3P_2 II вещество - HCl *нет расчета*

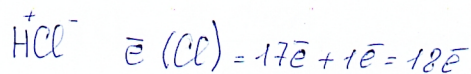
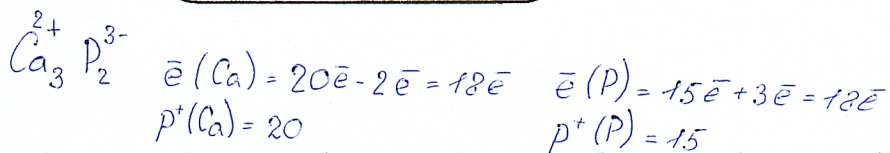


ЗВ.



СЕЧЕНОВСКИЙ
УНИВЕРСИТЕТ

9 X O 5 9

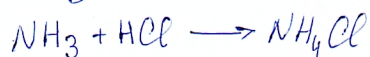


+30 = 60

$$\textcircled{3} \quad n(\text{смеси}) = \frac{20 \text{ л}}{22,4 \text{ л/моль}} = 0,89 \text{ моль}$$

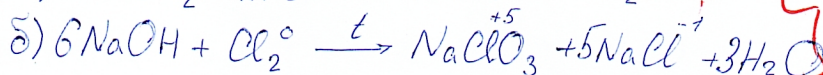
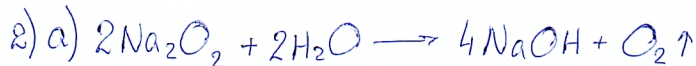
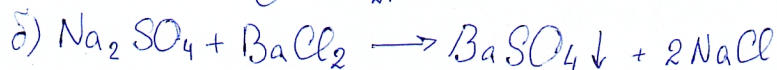
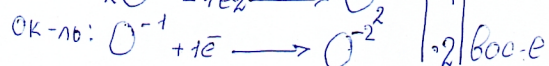
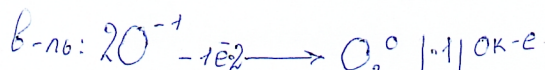
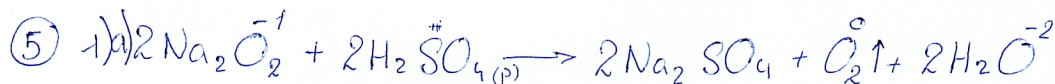


$$1) x + y = 0,89$$



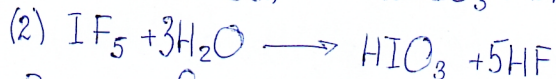
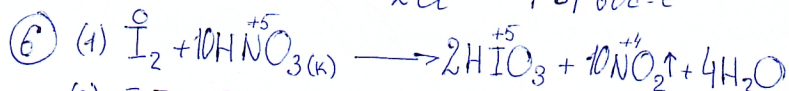
$$n(\text{HCl}) = \frac{10 \text{ л}}{22,4 \text{ л/моль}} = 0,446 \text{ моль}$$

15

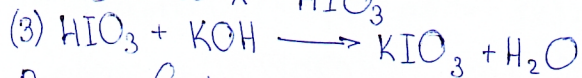


2 р-н окр. 2 р-н окр.

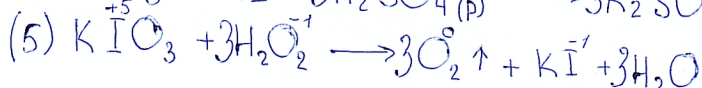
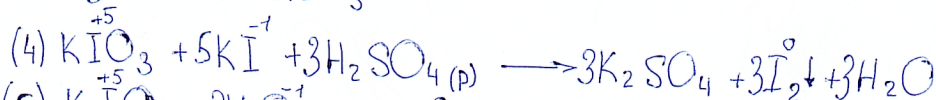
95



Вещество X - HIO_3



Вещество Y - KIO_3

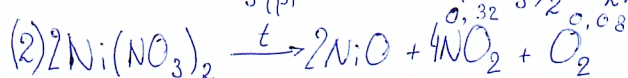
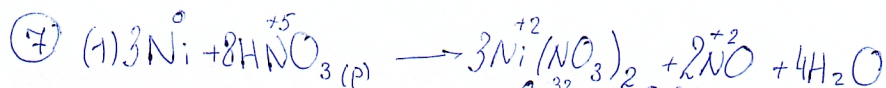


100.



СЕЧЕНОВСКИЙ
УНИВЕРСИТЕТ

9 X 0 5 9



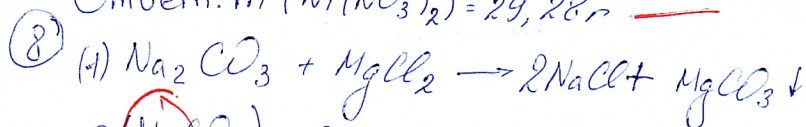
$n(\text{газов}) = \frac{9,075 \text{ г}}{22,4 \text{ г/моль}} = 0,4 \text{ моль}$

$x n(\text{NO}_2) = \frac{n(\text{O}_2)}{4} = 0,08 \text{ моль}$

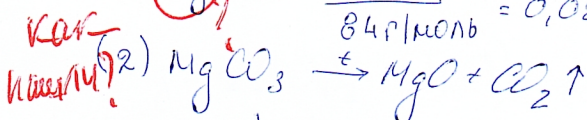
$2n(\text{Ni}(\text{NO}_3)_2) = n(\text{O}_2) = 0,16 \text{ моль}$

$m(\text{Ni}(\text{NO}_3)_2) = 0,16 \text{ моль} \cdot 183 \text{ г/моль} = 29,28 \text{ г}$

Ответ: $m(\text{Ni}(\text{NO}_3)_2) = 29,28 \text{ г}$

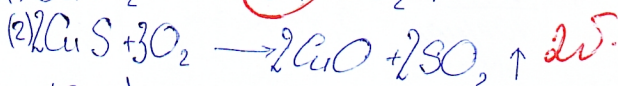
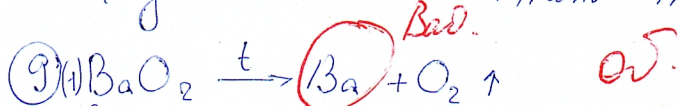


$n(\text{MgCO}_3) = \frac{2,1 \text{ г}}{84 \text{ г/моль}} = 0,025 \text{ моль}$



$n(\text{MgCO}_3) = n(\text{MgO}) = 0,025 \text{ моль}$

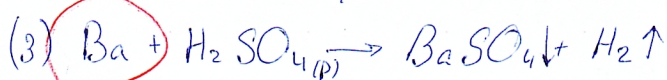
$m(\text{MgO}) = 0,025 \text{ моль} \cdot 40 \text{ г/моль} = 1 \text{ г}$



$n(\text{CuS}) = \frac{4,8 \text{ г}}{96 \text{ г/моль}} = 0,05 \text{ моль}$

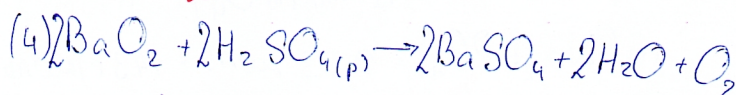
$2n(\text{CuS}) = 3n(\text{O}_2) = 0,075 \text{ моль}$

$n(\text{O}_2) = n(\text{Ba}) = 0,075 \text{ моль}$



$m(\text{H}_2\text{SO}_4)_{\text{исч}} = 220,5 \text{ г} \cdot 0,08 = 17,64 \text{ г}$

$n(\text{H}_2\text{SO}_4) = \frac{17,64 \text{ г}}{98 \text{ г/моль}} = 0,18 \text{ моль}$



$n(\text{BaO}_2) = 0,105 \text{ моль}$

$m(\text{BaO}_2) = 0,105 \text{ моль} \cdot 201 \text{ г/моль} =$

формула кристалла?

бб.

бб.

бб.

бб.

бб.

бб.

бб.

бб.



СЕЧЕНОВСКИЙ
УНИВЕРСИТЕТ

9 X O S 9

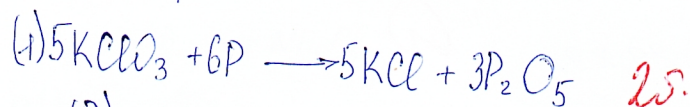
10) Соединение - KClO_3 25.

$$\omega(\text{K}) = \frac{39 \text{ г/моль}}{122,5 \text{ г/моль}} \cdot 100\% = 31,84\%$$

$$\omega(\text{Cl}) = \frac{35,5 \text{ г/моль}}{122,5 \text{ г/моль}} \cdot 100\% = 28,98\%$$

$$\omega(\text{O}) = \frac{48 \text{ г/моль}}{122,5 \text{ г/моль}} \cdot 100\% = 39,18\%$$

1/2/3/4/5/6/7/8/9/10
14

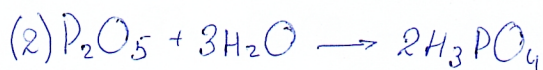


$$n(\text{P}) = \frac{3,72 \text{ г}}{31 \text{ г/моль}} = 0,12 \text{ моль}$$

$$n(\text{KClO}_3) = \frac{12,25 \text{ г}}{122,5 \text{ г/моль}} = 0,1 \text{ моль}$$

$$n(\text{P}) > n(\text{KClO}_3)$$

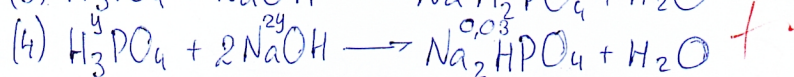
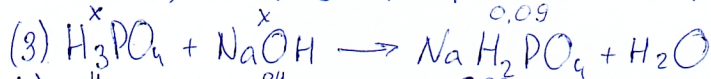
$$5n(\text{KClO}_3) = 3n(\text{P}_2\text{O}_5) = 0,06 \text{ моль}$$



$$n(\text{P}_2\text{O}_5) = 2n(\text{H}_3\text{PO}_4) = 0,12 \text{ моль}$$

$$m(\text{NaOH}) = 120 \text{ г} \cdot 0,05 = 6 \text{ г}$$

$$m(\text{NaOH}) = \frac{6 \text{ г}}{40 \text{ г/моль}} = 0,15 \text{ моль}$$



$$\begin{cases} x + y = 0,12 \\ x + 2y = 0,15 \end{cases} \begin{cases} x = 0,12 - y \\ 0,12 - y + 2y = 0,15 \end{cases} \begin{cases} x = 0,12 - y \\ y = 0,03 \end{cases} \begin{cases} x = 0,09 \\ y = 0,03 \end{cases}$$

$$M(\text{NaH}_2\text{PO}_4) < M(\text{Na}_2\text{HPO}_4)$$

$$m(\text{Na}_2\text{HPO}_4) = 0,03 \text{ моль} \cdot 143 \text{ г/моль} = 4,29 \text{ г}$$

Ответ: $m(\text{Na}_2\text{HPO}_4) = 4,29 \text{ г}$ +

145.



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