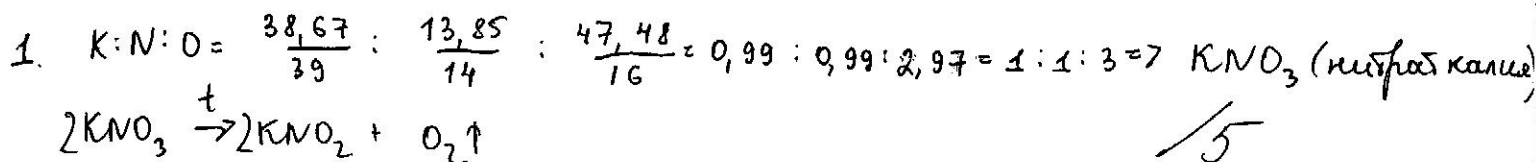


Класс 9 Вариант 1 Дата Олимпиады 24.02.18

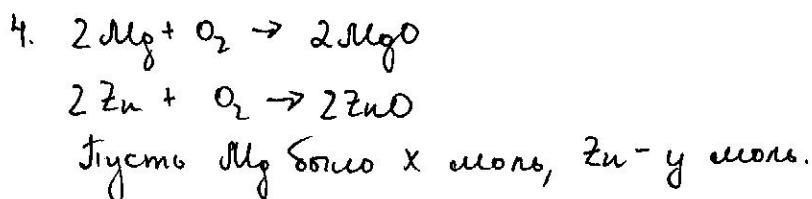
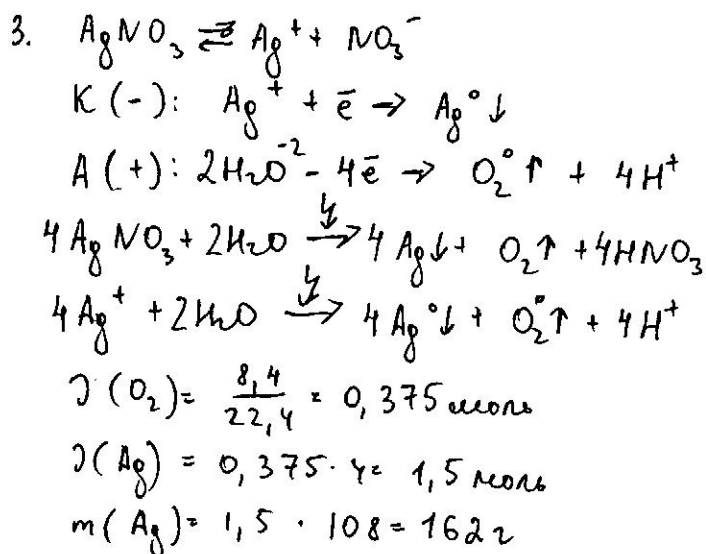
Площадка написания РГУ нефти и газа (НИУ) имени И.М. Губкина

Задача	1	2	3	4	5	6	Σ		Подпись
							Цифрой	Прописью	
Оценка	5	5	5	5	5	5	30	тридцать	



2. $m_1(KNO_3) = 200 \cdot 0,1 = 20g$
 $m_2(KNO_3) = 400 \cdot 0,2 = 80g$
 $m_{общ}(KNO_3) = 100g$
 $m_{р-ра} = 200 + 400 = 600g$
 $\omega(KNO_3) = \frac{100}{600} = 0,167 (16,7\%)$

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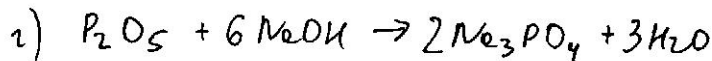
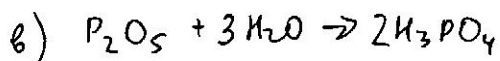
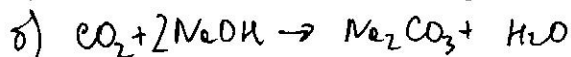
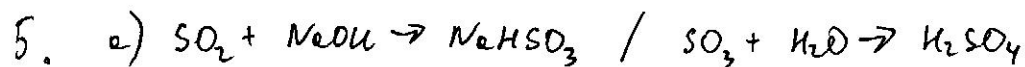


$$\begin{cases} 24x + 65y = 15,4 \\ (24+16)x + (65+16)y = 20,2 \end{cases}$$

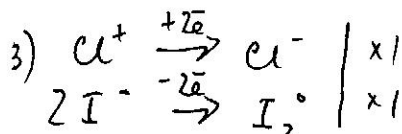
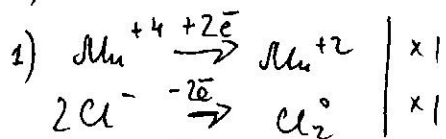
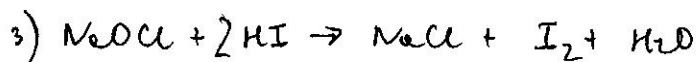
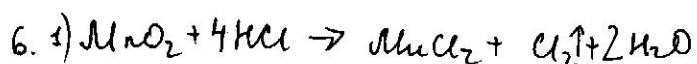
$$\begin{cases} 82y = 16,4 \\ 120x + 243y = 60,6 \end{cases} \Rightarrow \begin{cases} y = 0,2 \\ x = 0,1 \end{cases}$$

$$\begin{cases} 24x + 65y = 15,4 \\ 40x + 81y = 20,2 \end{cases} \begin{matrix} \cdot 5 \\ \cdot 3 \end{matrix} \Rightarrow \begin{cases} 120x + 325y = 77 \\ 120x + 243y = 60,6 \end{cases} \Rightarrow \begin{cases} 82y = 16,4 \\ 120x + 243y = 60,6 \end{cases}$$

$Mg - 0,1 \text{ моль}$ $\omega(Mg) = \frac{24 \cdot 0,1}{24 \cdot 0,1 + 65 \cdot 0,2} = 15,58\%$
 $Zn - 0,2 \text{ моль}$ $\omega(Zn) = \frac{65 \cdot 0,2}{24 \cdot 0,1 + 65 \cdot 0,2} = 84,42\%$



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