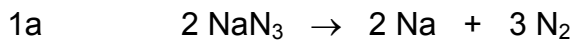


FACITLISTE 1. runde Kemi-OL 2002



1b $n(\text{N}_2) = 2,25 \text{ mol}$

1c $m(\text{NaN}_3) = 7,74 \text{ g}$

1d $V(\text{N}_2) = 30,0 \text{ L}$

2a $m(\text{KHCO}_3) = 2,00 \text{ g}$

2b $n(\text{KClO}_3) = 0,00833 \text{ mol}$

2c $n(\text{K}_2\text{CO}_3) = 0,0100 \text{ mol}$

2d $m(\text{KCl}) = 5,60 \text{ g}$



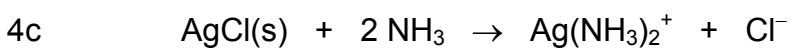
3b $c_s = 0,0490 \text{ M}$

3c $\text{pH} = 1,49$

3d $\text{pH} = 3,95$

4a $[\text{Ag}^+] = 1,8 \cdot 10^{-7} \text{ M}$

4b $n(\text{AgCl}) = 0,0040 \text{ mol} - 1,8 \cdot 10^{-7} \text{ mol} \cong 0,0040 \text{ mol} \Rightarrow m(\text{AgCl}) = 0,57 \text{ g}$



4d $[\text{Cl}^-] = 0,0050 \text{ M} \quad ([\text{Ag}^+] = 3,6 \cdot 10^{-8} \text{ M}) \quad [\text{NH}_3] = 0,081 \text{ M}$

4e $n(\text{NH}_3) = 0,089 \text{ mol}$

5a $m_{\text{C}} = 0,096 \text{ g} \quad m_{\text{H}} = 0,012 \text{ g}$

5b $m_{\text{Cl}} = 0,425 \text{ g}$

5c $m_{\text{O}} = 0,129 \text{ g}$

