Dosage du dioxygène dissous

2,0085 g $MnCl_2$

0,8 g HO^-

KI : 3,0416 g [thiosulfate de sodium] = 0,01 mol/L

$V_{eq} = 6,35$ mL.

$\frac{n_{O_2}}{V_0}$

$m(O_2) = \frac{1}{4} m(Mn(OH)_2)$

$m(Mn(OH)_2) = m(Mn(OH)_3)$

$m(Mn(OH)_3) = m(Mn^{3+})$

$\frac{m(Mn^{3+})}{2} = n(I_2)$

$n(I_2) = \frac{n}{2}(S_2O_3^{2-})$

$\Rightarrow n(O_2) = \frac{1}{4} n(S_2O_3^{2-})$

$V_0 [O_2] = \frac{1}{4} [S_2O_3^{2-}] V_{eq}$ → 0,01 mol/L

$V_0 = 50$ mL

$\Rightarrow [O_2] = \frac{1}{4} \times \frac{0,01 \times 0,00635}{0,05}$, $[O_2] = 3,18 \cdot 10^{-4}$ mol/L

$M = \frac{m}{n} = 16 \times 2$ g/mol.

$C_{O_2} = 10$ mg/L.