

p. 180 Prob sans excès



$$\downarrow M = 200,5 + 16 = 216,5 \text{ g/mol}$$

$$n = 0,009 \text{ mol}$$

$\frac{0,0045}{\text{trouvé par formule donnée}} \times \frac{\text{coeff}}{2} = \frac{0,009}{2} = 0,045$

	n_0	n	n
	$0,009$	0	0
	$-2 \cdot 0,0045$	$+2 \cdot 0,0045$	$+1 \cdot 0,0045$
	0	$n = 0,009 \text{ mol}$	$n = 0,0045$
		$\downarrow \times M = 200,5 \text{ g/mol}$	$\downarrow \times M_{\text{O}_2} = 2 \cdot 16 = 32 \text{ g/mol}$
		$m = 1,8 \text{g}$	$m = 0,144 \text{g}$



$$m = 10 \text{g}$$

$$\downarrow M_{\text{C}_2\text{H}_2} = 26 \text{ g/mol}$$

$$n = 0,385 \text{ mol}$$

	n_0	n	n
	$0,385$	$0,385$	0
	$-1 \cdot 0,385$	$-1 \cdot 0,385$	$+1 \cdot 0,385$
	0	0	$0,385$
			$0,385$

$$n_{\text{CaC}_2} = 0,385 \text{ mol}$$

$$\downarrow \times M_{\text{CaC}_2} = 40 + 2 \cdot 12 = 64 \text{ g/mol}$$

$$m = 24,64 \text{g} \quad \text{pendant } 1 \text{ g}$$

$$\text{pendant } \left. \begin{array}{l} \downarrow \times 4 \\ \downarrow \times 4 \end{array} \right\} 4 \text{ g} \times 4$$

$$m_{\text{CaC}_2} = 98,56 \text{g}$$



$m = 9 \text{ kg}$
 $= 9000 \text{ g}$
 \downarrow
 $M = 6 \cdot 12 + 12 + 6 \cdot 16$
 $= 180 \text{ g/mol}$
 $n = 50 \text{ mol}$

no	50	0	0
Δn	-1.50	+2.50	+2.50
nf	0	100	100

$n_{C_2H_5OH} = 100 \text{ mol}$
 \downarrow
 $xM = 2 \cdot 12 + 5 + 16 + 1$
 $= 46 \text{ g/mol}$
 $m = 4600 \text{ g}$
 $= 4,6 \text{ kg}$



$? m$
 $m = 1 \text{ T}$
 $= 1000000 \text{ g}$
 \downarrow
 $M = 2 \cdot 23 + 12 + 3 \cdot 16$
 $= 106 \text{ g/mol}$
 $n_f = 9434 \text{ mol}$

no	18868	9434	0
Δn	-2.9434	-1.9434	+1.9434
nf	0	0	9434

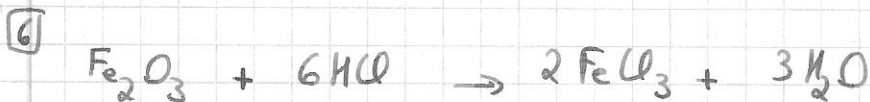
$n_f = 18868 \text{ mol}$
 \downarrow
 $xM_{NaCl} = 23 + 35,5$
 $= 58,5 \text{ g/mol}$
 $m = 103778 \text{ g}$
 $= 104 \text{ kg}$



$C = 0,75 \text{ mol/L}$

$\downarrow \times V_S = 500 \text{ mL}$
 $= 0,5 \text{ L}$
 $\downarrow n = 0,375 \text{ mol}$

n_0	$0,375$			
Δn	$-2 \cdot 0,1875$	$+2 \cdot 0,1875$	$+1 \cdot 0,1875$	
n_f	0	$n_{\text{H}_2\text{O}} = 0,375 \text{ mol}$	$n_{\text{O}_2} = 0,1875 \text{ mol}$	
		$\downarrow \times M_{\text{H}_2\text{O}} = 18 \text{ g/mol}$	$\downarrow \times M_{\text{O}_2} = 32 \text{ g/mol}$	
		$m_{\text{H}_2\text{O}} = 6,75 \text{ g}$	$m_{\text{O}_2} = 6 \text{ g}$	



? m $C = 1 \text{ mol/L}$

$\downarrow \times V_S = 1 \text{ L}$

$n = 1 \text{ mol}$

n_0	$1,67$	1			
Δn	$-1 \cdot 1,67$	$-6 \cdot 1,67$	$+2 \cdot 1,67$	$+3 \cdot 1,67$	
n_f	0	0	$3,34$	$5,01$	

$n_{\text{Fe}_2\text{O}_3} = 1,67 \text{ mol}$

$\downarrow \times M_{\text{Fe}_2\text{O}_3} = 2 \cdot 56 + 3 \cdot 16$
 $= 160 \text{ g/mol}$
 $m = 267,2 \text{ g}$