

ασκ. 1 / σελ. 71

$$a) n_{\text{NaOH}} = \frac{m}{M_r} = \frac{6}{40} = 0,15 \text{ mol}$$

$$C = \frac{n}{V} = \frac{0,15}{0,3} = 0,5 \text{ M}$$

$$b) n_{\text{NaCl}} = \frac{m}{M_r} = \frac{5,85}{58,5} = 0,1 \text{ mol}$$

$$C = \frac{n}{V} = \frac{0,1}{2} = 0,05 \text{ M}$$

$$γ) n_{\text{NaCl}} = \frac{m}{M_r} = \frac{27}{58,5} \approx 0,46 \text{ mol}$$

$$C = \frac{n}{V} = \frac{0,46}{0,1} = 4,6 \text{ M}$$

$$δ) n_{\text{H}_2\text{SO}_4} = \frac{m}{M_r} = \frac{19,6}{98} = 0,2 \text{ mol}$$

$$C = \frac{n}{V} = \frac{0,2}{0,4} = 0,5 \text{ M}$$

$$ε) n_{\text{HCl}} = \frac{V}{V_m} = \frac{8,96}{22,4} = 0,4 \text{ mol}$$

$$C = \frac{n}{V} = \frac{0,4}{0,5} = 0,8 \text{ M}$$

ασκ. 2 / σελ. 71

$$m_{\text{δίκτος}} = m_{\text{δίκτη}} + m_{\text{δ.ο.}} = 480 + 40 = 520 \text{ g}$$

$$\rho = \frac{m_{\text{δίκτος}}}{V_{\text{δίκτος}}} \Rightarrow V_{\text{δίκτος}} = \frac{m_{\text{δίκτος}}}{\rho} = \frac{520}{1,04} = 500 \text{ mL}$$

$$n_{\text{NaOH}} = \frac{m}{M_r} = \frac{40}{40} = 1 \text{ mol}$$

$$C = \frac{n}{V} = \frac{1}{0,5} = 2 \text{ M}$$

ασκ. 3 / σελ. 71

$$n_{\text{HNO}_3} = \frac{m}{M_r} = \frac{6,3}{63} = 0,1 \text{ mol}$$

$$C = \frac{n}{V} \Rightarrow V_{\text{δίκτος}} = \frac{n}{C} = \frac{0,1}{0,2} = 0,5 \text{ L} \text{ ή } 500 \text{ mL}$$

$$\rho = \frac{m_{\text{δίκτος}}}{V_{\text{δίκτος}}} \Rightarrow m_{\text{δίκτος}} = \rho \cdot V_{\text{δίκτος}} = 1,02 \cdot 500 = 510 \text{ g}$$

ασκ. 4 / σελ. 71

$$m_{\text{δίκτος}} = m_{\text{δίκτη}} + m_{\text{δ.ο.}} = 390 + 30 = 420 \text{ g}$$

$$\rho = \frac{m_{\text{δίκτος}}}{V_{\text{δίκτος}}} \Rightarrow V_{\text{δίκτος}} = \frac{m_{\text{δίκτος}}}{\rho} = \frac{420}{1,05} = 400 \text{ mL} \text{ ή } 0,4 \text{ L}$$

$$n_{\text{NaOH}} = \frac{m}{M_r} = \frac{30}{40} = 0,75 \text{ mol}$$

$$a) C = \frac{n}{V} = \frac{0,75}{0,4} = 1,875 \text{ M}$$

(1)

b) $\bar{\Sigma} \tau \alpha \quad 420 \text{ g } \delta/\tau \omega \varsigma \rightarrow 30 \text{ g NaOH}$

$\bar{\Sigma} \tau \alpha \quad 100 \text{ g } \delta/\tau \omega \varsigma \rightarrow x;$

$x = 7,14 \text{ g}, \text{ \alpha\rho \alpha } 7,14 \% \text{ w/w}$

γ) $\bar{\Sigma} \tau \alpha \quad 400 \text{ mL } \delta/\tau \omega \varsigma \rightarrow 30 \text{ g NaOH}$

$\bar{\Sigma} \tau \alpha \quad 100 \text{ mL } \delta/\tau \omega \varsigma \rightarrow x;$

$x = 7,5 \text{ g}, \text{ \alpha\rho \alpha } 7,5 \% \text{ w/v}$

ασκ. 5 / σελ. 71

$\bar{\Sigma} \tau \alpha \quad 1000 \text{ mL } \delta/\tau \omega \varsigma \rightarrow 3 \text{ mol NaOH} \rightarrow n = \frac{m}{M_r} \Rightarrow m = 3 \cdot 40 = 120 \text{ g}$

$\bar{\Sigma} \tau \alpha \quad 1000 \text{ mL } \delta/\tau \omega \varsigma \rightarrow 120 \text{ g NaOH}$

$\bar{\Sigma} \tau \alpha \quad 100 \text{ mL } \delta/\tau \omega \varsigma \rightarrow x;$

$x = 12 \text{ g}, \text{ \alpha\rho \alpha } 12 \% \text{ w/v}$

ασκ. 6 / σελ. 71

$\rho = \frac{m}{V} \Rightarrow V = \frac{100}{1,2} \text{ mL} \rightarrow n = \frac{m}{M_r} = \frac{10}{40} = 0,25 \text{ mol}$

$\bar{\Sigma} \tau \alpha \quad 100 \text{ g } \delta/\tau \omega \varsigma \rightarrow 10 \text{ g NaOH}$

$\bar{\Sigma} \tau \alpha \quad \frac{100}{1,2} \text{ mL } \delta/\tau \omega \varsigma \rightarrow 0,25 \text{ mol NaOH}$

$\bar{\Sigma} \tau \alpha \quad 1000 \text{ mL } \delta/\tau \omega \varsigma \rightarrow x;$

$x = 3 \text{ mol}, \text{ \alpha\rho \alpha } C = 3 \text{ M}$

ασκ. 7 / σελ. 71

a) $\bar{\Sigma} \tau \alpha \quad 100 \text{ g } \delta/\tau \omega \varsigma \rightarrow 28 \text{ g KOH}$

$\bar{\Sigma} \tau \alpha \quad \frac{100}{1,2} \text{ mL } \delta/\tau \omega \varsigma \rightarrow 28 \text{ g KOH}$

$\bar{\Sigma} \tau \alpha \quad 100 \text{ mL } \delta/\tau \omega \varsigma \rightarrow x;$

$x = 33,6 \text{ g}, \text{ \alpha\rho \alpha } 33,6 \% \text{ w/v}$

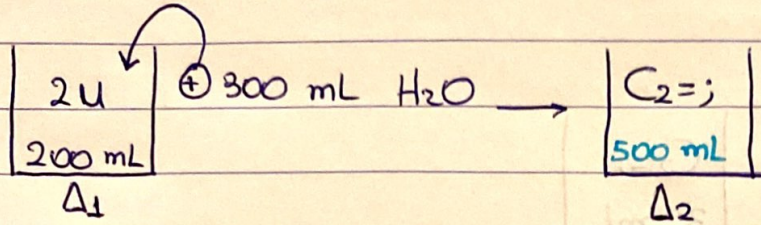
b) $\bar{\Sigma} \tau \alpha \quad 100 \text{ mL } \delta/\tau \omega \varsigma \rightarrow 33,6 \text{ g KOH} \rightarrow n = \frac{m}{M_r} = \frac{33,6}{56} = 0,6 \text{ mol}$

$\bar{\Sigma} \tau \alpha \quad 100 \text{ mL } \delta/\tau \omega \varsigma \rightarrow 0,6 \text{ mol KOH}$

2αα 1000 mL 8/100 → x;

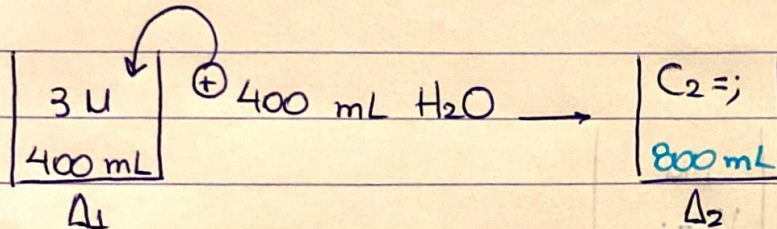
x = 6 mol, αρα C = 6 M

αοκ. 8 / σελ. 71



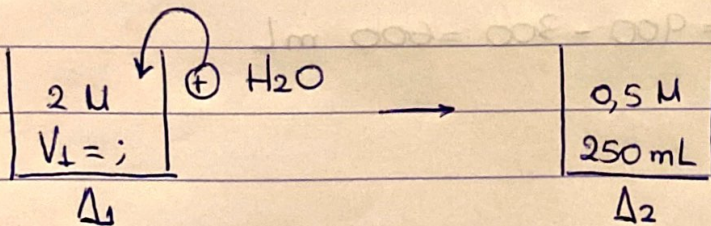
$$n_1 = n_2 \Rightarrow C_1 V_1 = C_2 V_2 \Rightarrow C_2 = \frac{C_1 V_1}{V_2} = \frac{2 \cdot 0,2}{0,5} = 0,8 \text{ M}$$

αοκ. 9 / σελ. 71



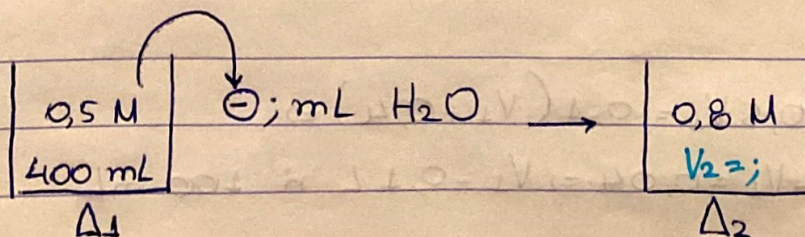
$$n_1 = n_2 \Rightarrow C_1 V_1 = C_2 V_2 \Rightarrow C_2 = \frac{C_1 V_1}{V_2} = \frac{3 \cdot 0,4}{0,8} = 1,5 \text{ M}$$

αοκ. 10 / σελ. 72



$$n_1 = n_2 \Rightarrow C_1 V_1 = C_2 V_2 \Rightarrow V_1 = \frac{C_2 V_2}{C_1} = \frac{0,5 \cdot 0,25}{2} = 0,0625 \text{ L} \text{ ή } 62,5 \text{ mL}$$

αοκ. 11 / σελ. 72

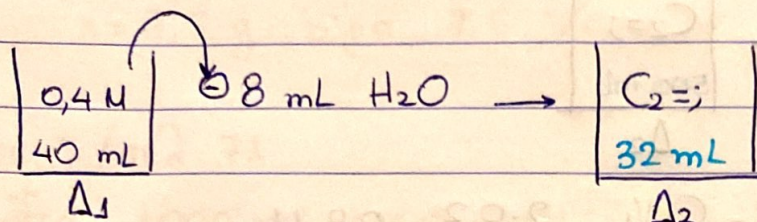


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$$n_1 = n_2 \Rightarrow C_1 V_1 = C_2 V_2 \Rightarrow V_2 = \frac{C_1 V_1}{C_2} = \frac{0,5 \cdot 0,4}{0,8} = 0,25 \text{ L} \text{ n } 250 \text{ mL}$$

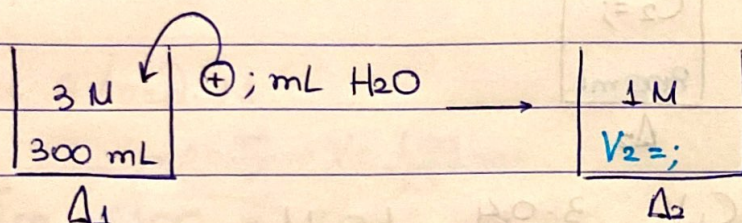
$$V_1 - V_{H_2O} = V_2 \Rightarrow V_{H_2O} = V_1 - V_2 = 400 - 250 = 150 \text{ mL}$$

аок. 12 / сэд. 72



$$n_1 = n_2 \Rightarrow C_1 V_1 = C_2 V_2 \Rightarrow C_2 = \frac{C_1 V_1}{V_2} = \frac{0,4 \cdot 0,04}{0,032} = 0,5 \text{ M}$$

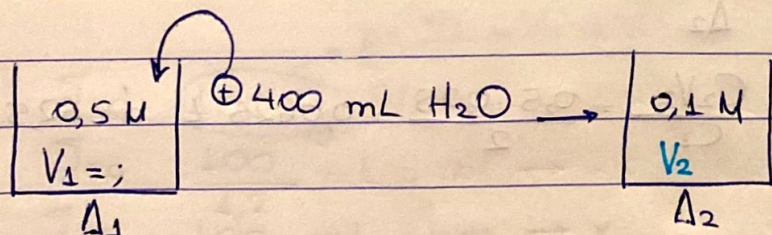
аок. 13 / сэд. 72



$$n_1 = n_2 \Rightarrow C_1 V_1 = C_2 V_2 \Rightarrow V_2 = \frac{C_1 V_1}{C_2} = \frac{3 \cdot 0,3}{1} = 0,9 \text{ L} \text{ n } 900 \text{ mL}$$

$$V_1 + V_{H_2O} = V_2 \Rightarrow V_{H_2O} = V_2 - V_1 = 900 - 300 = 600 \text{ mL}$$

аок. 14 / сэд. 72



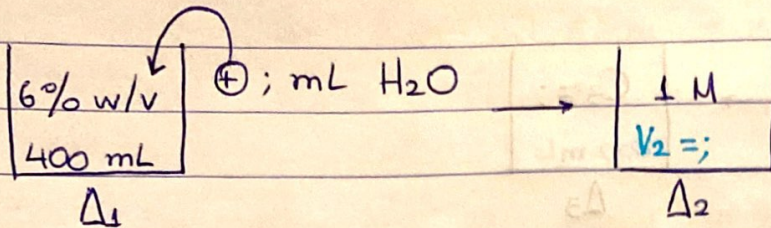
$$V_2 = V_1 + V_{H_2O} = V_1 + 0,4$$

$$n_1 = n_2 \Rightarrow C_1 V_1 = C_2 V_2 \Rightarrow 0,5 V_1 = 0,1 (V_1 + 0,4) \Rightarrow$$

$$0,5 V_1 = 0,1 V_1 + 0,04 \Rightarrow 0,4 V_1 = 0,04 \Rightarrow V_1 = 0,1 \text{ L} \text{ n } 100 \text{ mL}$$

(4)

00K.15 / 0E2.72



Σ_{co} Δ₁: Σ_E 100 mL 8/100 → 6 g NaOH $n = \frac{m}{M_r} = \frac{6}{40} = 0,15 \text{ mol}$

Σ_E 100 mL 8/100 → 0,15 mol NaOH

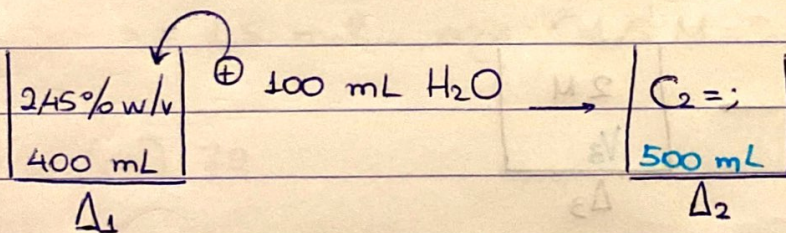
Σ_E 1000 mL 8/100 → x;

x = 1,5 mol, αpa C₁ = 1,5 M

$$n_1 = n_2 \Rightarrow C_1 V_1 = C_2 V_2 \Rightarrow V_2 = \frac{C_1 V_1}{C_2} = \frac{1,5 \cdot 0,4}{1} = 0,6 \text{ L} \text{ n } 600 \text{ mL}$$

$$V_1 + V_{H_2O} = V_2 \Rightarrow V_{H_2O} = V_2 - V_1 = 600 - 400 = 200 \text{ mL}$$

00K.16 / 0E2.72



Σ_{co} Δ₁: Σ_E 100 mL 8/100 → 2,45 g H₂SO₄ $n = \frac{m}{M_r} = \frac{2,45}{98} = 0,025 \text{ mol}$

Σ_E 100 mL 8/100 → 0,025 mol H₂SO₄

Σ_E 1000 mL 8/100 → x;

x = 0,25 mol, αpa C₁ = 0,25 M

$$n_1 = n_2 \Rightarrow C_1 V_1 = C_2 V_2 \Rightarrow C_2 = \frac{C_1 V_1}{V_2} = \frac{0,25 \cdot 0,4}{0,5} = 0,2 \text{ M}$$

αοκ. 17 / οκτ. 72

3 M	+	1 M	→	C ₃ = ;
400 mL		400 mL		800 mL
Δ ₁		Δ ₂		Δ ₃

$$n_1 + n_2 = n_3 \Rightarrow C_1 V_1 + C_2 V_2 = C_3 V_3 \Rightarrow 3 \cdot 0,4 + 1 \cdot 0,4 = C_3 \cdot 0,8 \Rightarrow C_3 = 2 \text{ M}$$

αοκ. 18 / οκτ. 72

0,25 M	+	1 M	→	C ₃ = ;
2 L		500 mL		2,5 L
Δ ₁		Δ ₂		Δ ₃

$$n_1 + n_2 = n_3 \Rightarrow C_1 V_1 + C_2 V_2 = C_3 V_3 \Rightarrow 0,25 \cdot 2 + 1 \cdot 0,5 = C_3 \cdot 2,5 \Rightarrow C_3 = 0,4 \text{ M}$$

αοκ. 19 / οκτ. 72

3 M	+	1 M	→	2 M
V ₁ = ;		200 mL		V ₃
Δ ₁		Δ ₂		Δ ₃

$$V_3 = V_1 + V_2 = V_1 + 0,2$$

$$n_1 + n_2 = n_3 \Rightarrow C_1 V_1 + C_2 V_2 = C_3 V_3 \Rightarrow 3 V_1 + 1 \cdot 0,2 = 2 \cdot (V_1 + 0,2) \Rightarrow$$

$$3 V_1 + 0,2 = 2 V_1 + 0,4 \Rightarrow V_1 = 0,2 \text{ L ή } 200 \text{ mL}$$

αοκ. 20 / οκτ. 72

3% w/v	+	8% w/v	→	
200 mL		300 mL		500 mL
Δ ₁		Δ ₂		Δ ₃

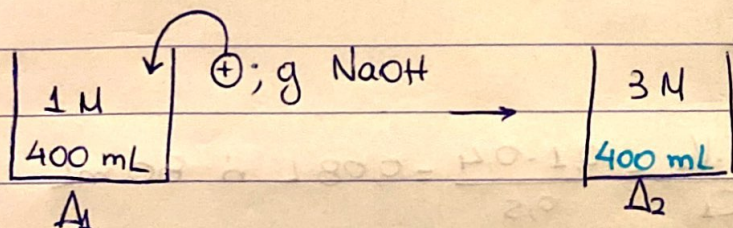
a) Στο Δ₁: Σε 100 mL δ/τος → 3 g NaOH
 Σε 200 mL δ/τος → x;
 x = 6 g NaOH

Στο Δ₂: Σε 100 mL δ/τος → 8 g NaOH
 Σε 300 mL δ/τος → x;
 x = 24 g NaOH

Στο Δ₃: m_{NaOH} = 6 + 24 = 30 g
 Σε 500 mL δ/τος → 30 g NaOH
 Σε 100 mL δ/τος → x;
 x = 6 g NaOH, ήτοι 6% w/v

b) Σε 100 mL δ/τος → 6 g NaOH → $n = \frac{m}{M_r} = \frac{6}{40} = 0,15 \text{ mol}$
 Σε 100 mL δ/τος → 0,15 mol NaOH
 Σε 1000 mL δ/τος → x;
 x = 1,5 mol, ήτοι C = 1,5 M

ασκ. 21 / σελ. 72



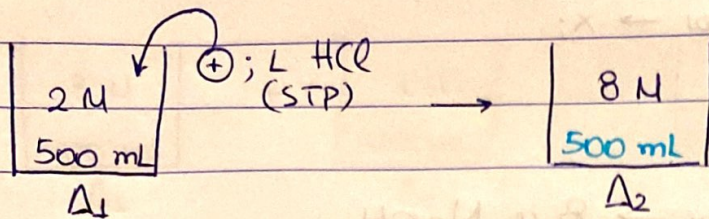
$$n_1 + n_{\text{προσ.}} = n_2 \Rightarrow C_1 \cdot V_1 + n_{\text{προσ.}} = C_2 \cdot V_2 \Rightarrow 1 \cdot 0,4 + n_{\text{προσ.}} = 3 \cdot 0,4 \Rightarrow$$

$$0,4 + n_{\text{προσ.}} = 1,2 \Rightarrow n_{\text{προσ.}} = 0,8 \text{ mol}$$

$$n = \frac{m}{M_r} \Rightarrow m_{\text{NaOH}} = n_{\text{προσ.}} \cdot M_r = 0,8 \cdot 40 = 32 \text{ g}$$

$$M_r(\text{NaOH}) = 23 + 16 + 1 = 40$$

ασκ. 22 / σελ. 72



$$n_1 + n_{\text{HCl}} = n_2 \Rightarrow C_1 \cdot V_1 + n_{\text{HCl}} = C_2 \cdot V_2 \Rightarrow 2 \cdot 0,5 + n_{\text{HCl}} = 8 \cdot 0,5 \Rightarrow 1 + n_{\text{HCl}} = 4 \Rightarrow n_{\text{HCl}} = 3 \text{ mol}$$

$$n = \frac{V}{V_m} \Rightarrow V_{\text{HCl}} = n_{\text{HCl}} \cdot V_m = 3 \cdot 22,4 = 67,2 \text{ L}$$

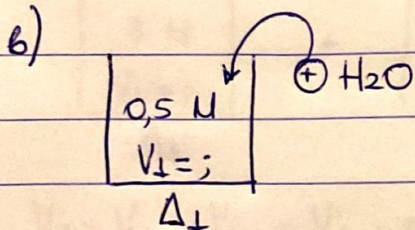
ασκ. 23 / σελ. 73

a) Σε 100 mL διαλ. $\rightarrow$ 2 g NaOH $n = \frac{m}{M_r} = \frac{2}{40} = 0,05 \text{ mol}$

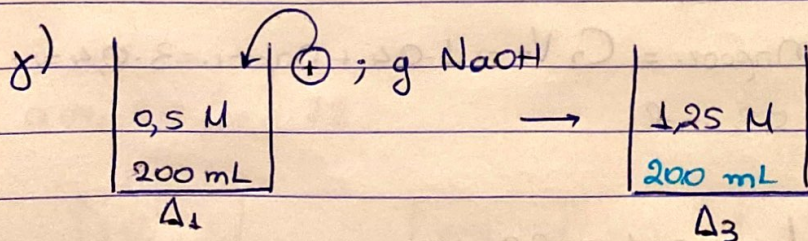
Σε 100 mL διαλ. $\rightarrow$ 0,05 mol NaOH

Σε 1000 mL διαλ. $\rightarrow$ x;

$x = 0,5 \text{ mol NaOH}$, άρα $C = 0,5 \text{ M}$.



$$n_1 = n_2 \Rightarrow C_1 \cdot V_1 = C_2 \cdot V_2 \Rightarrow V_1 = \frac{C_2 \cdot V_2}{C_1} = \frac{0,1 \cdot 0,4}{0,5} = 0,08 \text{ L ή } 80 \text{ mL}$$



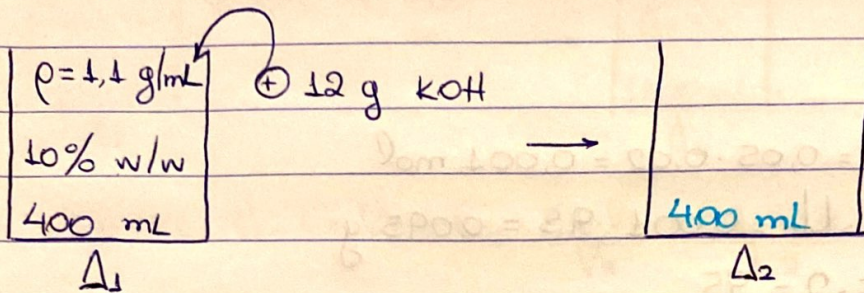
$$n_1 + n_{\text{NaOH}} = n_3 \Rightarrow C_1 \cdot V_1 + n_{\text{NaOH}} = C_3 \cdot V_3 \Rightarrow 0,5 \cdot 0,2 + n_{\text{NaOH}} = 1,25 \cdot 0,2 \Rightarrow 0,1 + n_{\text{NaOH}} = 0,25 \Rightarrow n_{\text{NaOH}} = 0,15 \text{ mol}$$

(8)

$$n = \frac{m}{M_r} \Rightarrow m_{\text{NaOH}} = n_{\text{NaOH}} \cdot M_r = 0,15 \cdot 40 = 6 \text{ g}$$

$$M_r(\text{NaOH}) = 23 + 16 + 1 = 40$$

ασκ. 24 / σελ. 73



a) $\rho = \frac{m_{\Delta 1}}{V_{\Delta 1}} \Rightarrow m_{\Delta 1} = \rho \cdot V_{\Delta 1} = 1,1 \cdot 400 = 440 \text{ g}$

b) $\Sigma \varepsilon \quad 100 \text{ g} \text{ δ/τος} \rightarrow 10 \text{ g KOH}$

$\Sigma \varepsilon \quad 440 \text{ g} \text{ δ/τος} \rightarrow x;$

$x = 44 \text{ g KOH στο } \Delta_1$

γ) $\Sigma \varepsilon \quad \Delta_2 \text{ περιέχονται: } 44 + 12 = 56 \text{ g KOH}$

$\Sigma \varepsilon \quad 400 \text{ mL} \text{ δ/τος} \rightarrow 56 \text{ g KOH}$

$\Sigma \varepsilon \quad 100 \text{ mL} \text{ δ/τος} \rightarrow x;$

$x = 14 \text{ g, άρα } 14 \% \text{ w/v}$

δ) $\Sigma \varepsilon \quad 100 \text{ mL} \text{ δ/τος} \rightarrow 14 \text{ g KOH}$

$\Sigma \varepsilon \quad 100 \text{ mL} \text{ δ/τος} \rightarrow 0,25 \text{ mol KOH}$

$\Sigma \varepsilon \quad 1000 \text{ mL} \text{ δ/τος} \rightarrow x; \text{ mol KOH}$

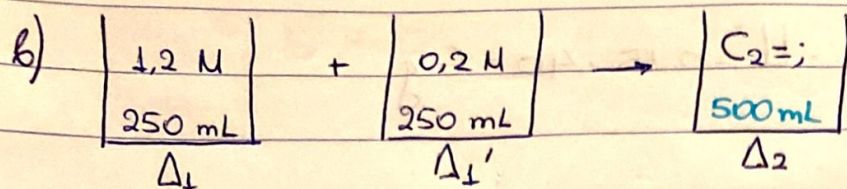
$x = 2,5 \text{ mol KOH, άρα } C_2 = 2,5 \text{ M}$

ασκ. 25 / σελ. 73

a) $C = \frac{n}{V} \Rightarrow n_{\text{H}_2\text{SO}_4} = C \cdot V = 1,2 \cdot 0,05 = 0,06 \text{ mol}$

$n = \frac{m}{M_r} \Rightarrow m_{\text{H}_2\text{SO}_4} = n \cdot M_r = 0,06 \cdot 98 = 5,88 \text{ g}$

$M_r(\text{H}_2\text{SO}_4) = 1 \cdot 2 + 32 + 16 \cdot 4 = 98$



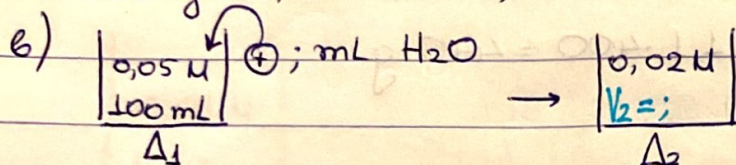
$$n_1 + n_1' = n_2 \Rightarrow C_1 \cdot V_1 + C_1' \cdot V_1' = C_2 \cdot V_2 \Rightarrow 1,2 \cdot 0,25 + 0,2 \cdot 0,25 = C_2 \cdot 0,5 \Rightarrow C_2 = 0,7 \text{ M}$$

аок. 26 / окт. 73

a) $C = \frac{n}{V} \Rightarrow n_{\text{HgCl}_2} = C \cdot V = 0,05 \cdot 0,02 = 0,001 \text{ mol}$

$$n = \frac{m}{M_r} \Rightarrow m_{\text{HgCl}_2} = n \cdot M_r = 0,001 \cdot 95 = 0,095 \text{ g}$$

$$M_r(\text{HgCl}_2) = 200 + 35,5 \cdot 2 = 201$$



$$n_1 = n_2 \Rightarrow C_1 \cdot V_1 = C_2 \cdot V_2 \Rightarrow V_2 = \frac{C_1 \cdot V_1}{C_2} = \frac{0,05 \cdot 0,1}{0,02} = 0,25 \text{ L} \text{ и } 250 \text{ mL}$$

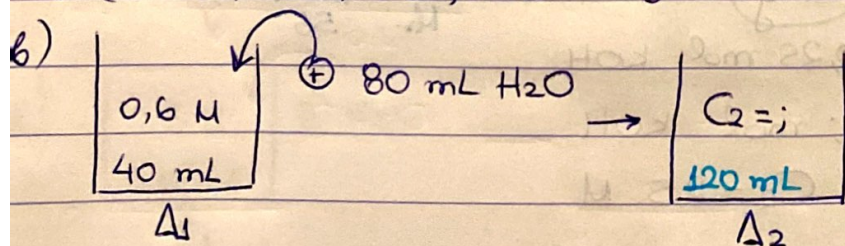
$$V_1 + V_{\text{H}_2\text{O}} = V_2 \Rightarrow V_{\text{H}_2\text{O}} = V_2 - V_1 = 250 - 100 = 150 \text{ mL}$$

аок. 27 / окт. 73

a) $C = \frac{n}{V} \Rightarrow n_{\text{BaCl}_2} = C \cdot V = 0,6 \cdot 0,2 = 0,12 \text{ mol}$

$$n = \frac{m}{M_r} \Rightarrow m_{\text{BaCl}_2} = n \cdot M_r = 0,12 \cdot 208 = 24,96 \text{ g}$$

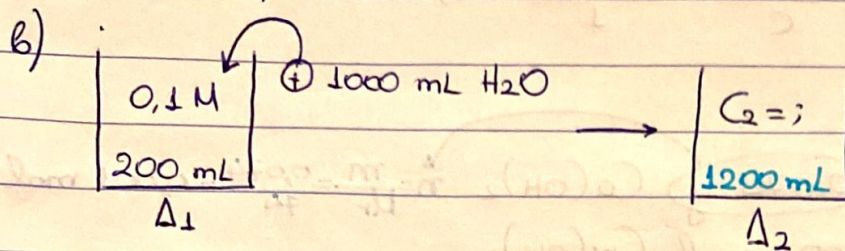
$$M_r(\text{BaCl}_2) = 137 + 35,5 \cdot 2 = 208$$



$$n_1 = n_2 \Rightarrow C_1 \cdot V_1 = C_2 \cdot V_2 \Rightarrow C_2 = \frac{C_1 \cdot V_1}{V_2} = \frac{0,6 \cdot 0,04}{0,12} = 0,2 \text{ M}$$

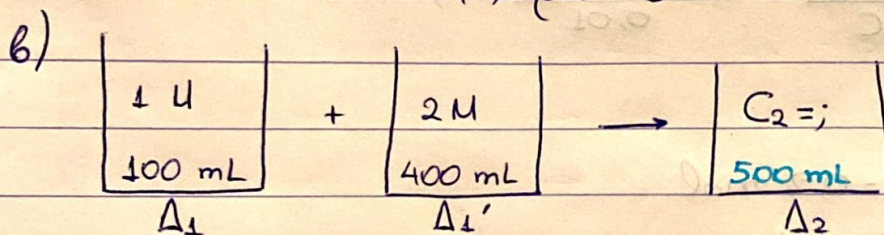
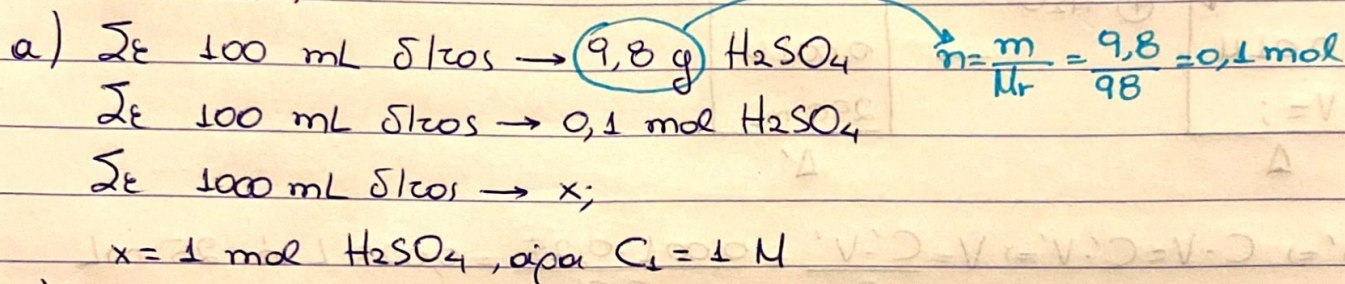
ασκ. 28 / σελ. 73

a) $C = \frac{n}{V} \Rightarrow n_{\text{NaOH}} = C \cdot V = 0,1 \cdot 0,25 = 0,025 \text{ mol}$
 $n = \frac{m}{M_r} \Rightarrow m_{\text{NaOH}} = n \cdot M_r = 0,025 \cdot 40 = 1 \text{ g}$
 $M_r(\text{NaOH}) = 23 + 16 + 1 = 40$



$$n_1 = n_2 \Rightarrow C_1 \cdot V_1 = C_2 \cdot V_2 \Rightarrow C_2 = \frac{C_1 \cdot V_1}{V_2} = \frac{0,1 \cdot 0,2}{1,2} = \frac{1}{60} \text{ M}$$

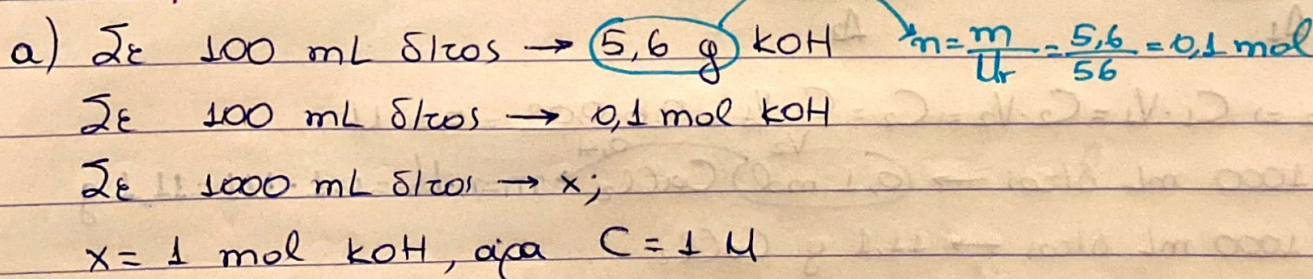
ασκ. 29 / σελ. 74

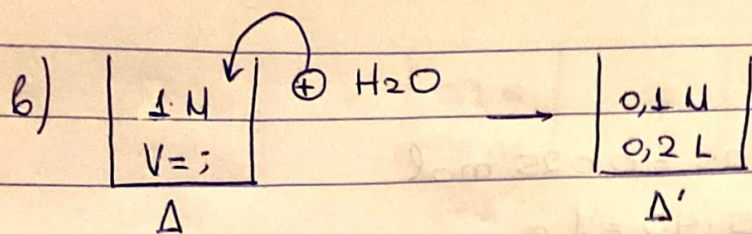


$$n_1 + n_{1'} = n_2 \Rightarrow C_1 \cdot V_1 + C_{1'} \cdot V_{1'} = C_2 \cdot V_2 \Rightarrow 1 \cdot 0,1 + 2 \cdot 0,4 = C_2 \cdot 0,5 \Rightarrow$$

$$0,1 + 0,8 = 0,5 C_2 \Rightarrow C_2 = 1,8 \text{ M}$$

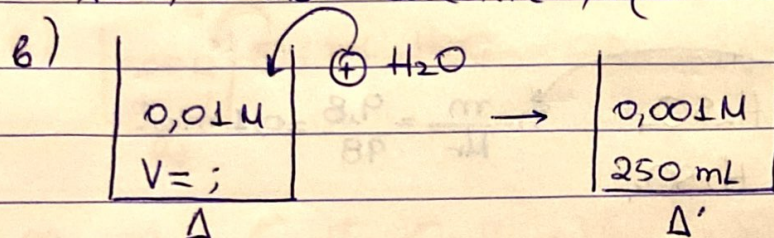
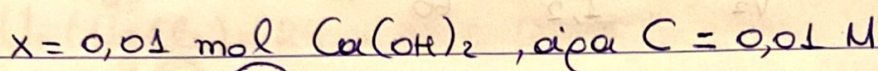
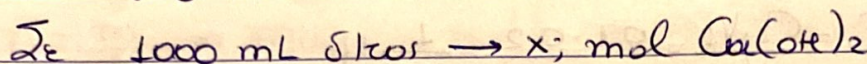
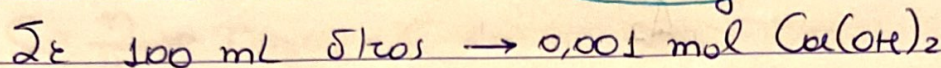
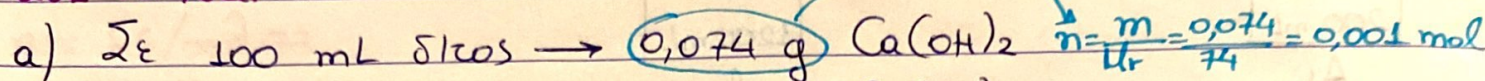
ασκ. 30 / σελ. 74





$$n = n' \Rightarrow C \cdot V = C' \cdot V' \Rightarrow V = \frac{C' \cdot V'}{C} = \frac{0,1 \cdot 0,2}{1} = 0,02 \text{ L} \text{ n } 20 \text{ mL}$$

000.31 / 002.74



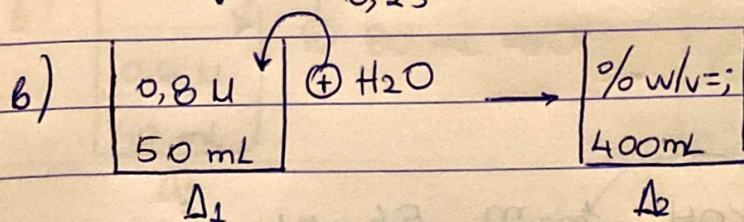
$$n = n' \Rightarrow C \cdot V = C' \cdot V' \Rightarrow V = \frac{C' \cdot V'}{C} = \frac{0,001 \cdot 0,25}{0,01} = 0,025 \text{ L} \text{ n } 25 \text{ mL}$$

000.32 / 002.74

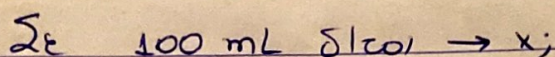
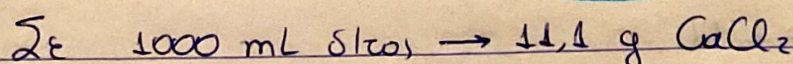
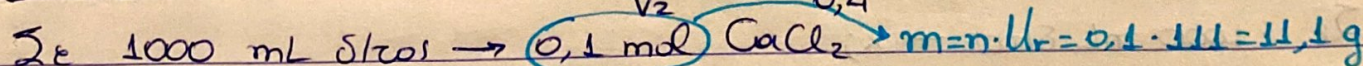
a) $n_{CaCl_2} = \frac{m}{M_r} = \frac{22,2}{111} = 0,2 \text{ mol}$

$M_r(CaCl_2) = 40 + 35,5 \cdot 2 = 111$

$C_1 = \frac{n}{V} = \frac{0,2}{0,25} = 0,8 \text{ M}$



$$n_1 = n_2 \Rightarrow C_1 \cdot V_1 = C_2 \cdot V_2 \Rightarrow C_2 = \frac{C_1 \cdot V_1}{V_2} = \frac{0,8 \cdot 0,05}{0,4} = 0,1 \text{ M}$$



$$x = 1,11 \text{ g CaCl}_2, \text{ aia } 1,11 \% \text{ w/v}$$

200.33 / 0.74

a) Σ_e 1000 mL 81205 $\rightarrow$ 15,8 mol HNO_3 $m = n \cdot M_r = 15,8 \cdot 63 = 995,4 \text{ g}$

Σ_e 1000 mL 81205 $\rightarrow$ 995,4 g HNO_3

Σ_e 100 mL 81205 $\rightarrow$ x;

$x = 99,54 \text{ g HNO}_3, \text{ aia } 99,54 \% \text{ w/v}$

b)

15,8 M
$V_1 = ;$

Δ_1

$\rightarrow$

3 M
100 mL

Δ_2

$\oplus \text{H}_2\text{O}$

$$n_1 = n_2 \Rightarrow C_1 \cdot V_1 = C_2 \cdot V_2 \Rightarrow V_1 = \frac{C_2 \cdot V_2}{C_1} = \frac{3 \cdot 0,1}{15,8} \approx 0,019 \text{ L} \text{ n } 19 \text{ mL}$$