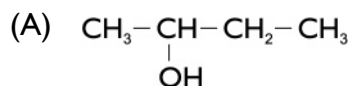


PADRÃO DE RESPOSTAS

QUESTÃO 01



2 - butanol

(B) Substituição nucleofílica.

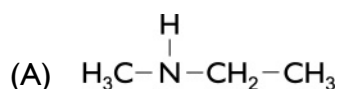
QUESTÃO 02

(A) 1 mol — 84 g 0,5 mol — x x = 42 g	1000 mL — 42 g 25 mL — y y = 1,05 g
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Massa de soluto = **1,05 g**

(B) Sal.

QUESTÃO 03

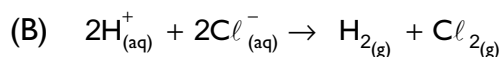


(B) 1 - amino propano e 2 - amino propano

QUESTÃO 04

(A) 1 mol — 58,5 g x — 5,85 g x = 0,1 mol	1 mol NaCl — 0,5 mol Cl ₂ 0,1 mol NaCl — y y = 0,05 mol Cl ₂	1 mol — 90 L 0,05 mol — z z = 4,5 L
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Volume de gás = **4,5 L**



QUESTÃO 05

(A) Base ou hidróxido.

1,2 - etanodiol.

(B) $\boxed{a} = 3$

$\boxed{b} = 2$

QUESTÃO 06

- (A) $\begin{matrix} A+3 \\ Z+3 \end{matrix} X = \begin{matrix} 241 \\ 95 \end{matrix} \text{Am} \otimes \begin{matrix} 238 \\ 92 \end{matrix} \text{U}$
- (B) 6×10^{23} átomos — 241 g
 $1,2 \times 10^{24}$ átomos — x
x = 482 g

QUESTÃO 07

- (A) $\Delta H = H_p - H_r = H_{\text{propano}} - H_{\text{propeno}} = -25 - (5) = -30 \text{ kcal} \times \text{mol}^{-1}$
 $\Delta H = - (8 H_{\text{C-H}} + 2 H_{\text{C-C}}) + (H_{\text{H-H}} + H_{\text{C-C}} + H_{\text{C=C}} + 6 H_{\text{C-H}})$
 $-30 = -958 + H_{\text{H-H}} + 824$
 $H_{\text{H-H}} = 958 - 824 - 30 = \mathbf{104 \text{ kcal} \cdot \text{mol}^{-1}}$
- (B) $\text{CH}_2=\text{CH}-\text{CH}_3 + \text{HCl} \rightarrow \text{CH}_3-\underset{\text{Cl}}{\text{CH}}-\text{CH}_3$

QUESTÃO 08

- (A) III e IV
- (B) Sentido 1.
Éster e fenol.

QUESTÃO 09

- (A) In^{+2}
 Al_2O_3
- (B) 13
1B ou 11

QUESTÃO 10

- (A) $\text{NH}_3 + \text{H}_2\text{O} \rightleftharpoons \text{NH}_4^+ + \text{OH}^-$

$$K_b = \frac{[\text{NH}_4^+][\text{OH}^-]}{[\text{NH}_3]} \Rightarrow 2,0 \times 10^{-5} = \frac{[\text{OH}^-]^2}{0,05}$$

$$[\text{OH}^-] = \sqrt{0,05 \times 2,0 \times 10^{-5}} = \sqrt{1 \times 10^{-6}} = 1 \times 10^{-3}$$

$$\text{pOH} = -\log 10^{-3}$$

D $\text{pOH} = 3$

D $\text{pH} = 14 - 3 = 11$

- (B) Geometria piramidal.
Ligação covalente.