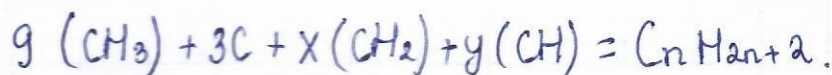


✓1

Х-09-02

Алкан - C_3H_8 - 95.



$$n = 9 + 3 + x + y$$

$$27 + 2x + y = 2n + 2$$

$$2n + 2 - 2n = 27 + 2y - 24 - 2x - 2y \quad y = 1$$

✓2.

$$m(H_2) = 24,82$$

$$m(O_2) = 36,82$$

$$m(N_2) = 33,282$$

$$M(H_2) = 1 \cdot 2 = 2$$

$$M(O_2) = 16 \cdot 2 = 32$$

$$V(H_2) \cdot 2 + m_0 = 24,8$$

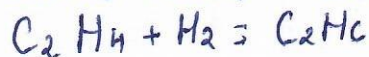
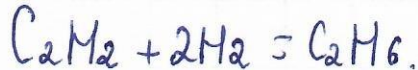
$$V(O_2) \cdot 32 + m_0 = 36,8 \text{ моль}$$

$$m_0 = 24,02, V(H_2) = V(O_2) = 0,4 \text{ моль}$$

$$9,28 = 0,16 \cdot 28 + (0,4 - 0,16)X \quad X = 20 \text{ ч моль}$$

Белгііз газ - неон.

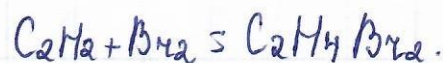
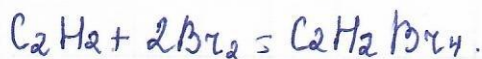
✓3.



$$V = 150(C_2H_2)$$

$$V = 150 \cdot 2 = 300$$

$$x + 150 - x + 350 - (2x + 150 - x) = 250 \quad x = 100 \text{ мл}$$



$$V = \frac{0,1}{22,4} = 0,0045 \text{ моль} \quad C_2H_2$$

$$V = \frac{0,05}{22,4} = 0,00223 = 0,35682$$

$$m(Br) = 160 \cdot 0,0045 \cdot 2 = 1,442$$

$$Br_2 = \frac{(1,44 \cdot 0,3568)}{0,103} = 5,8932$$

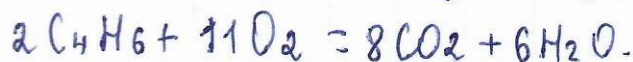
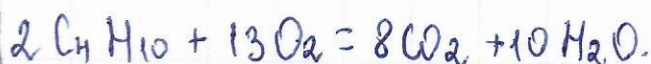
x - 09-02

№5.

$$m(\text{CO}_2) = 88$$

$$m(\text{H}_2\text{O}) = 30,62$$

$$w = ?$$



$$n(\text{CO}_2) = \frac{88}{44} = 2 \text{ моль}$$

$$n(\text{H}_2\text{O}) = \frac{30,6}{18} = 1,7 \text{ моль}$$

$$x + y = 2$$

$$1,25x + 0,75y = 1,7$$

$$1,25x + 1,25y = 2,5$$

$$1,25x + 0,75y = 1,7$$

$$0,5y = 0,8 \quad y = 1,6 \text{ моль}; \quad x = 0,4 \text{ моль}$$

$$n(\text{C}_4\text{H}_{10}) = \frac{x}{4} = 0,1 \text{ моль}$$

$$n(\text{C}_4\text{H}_6) = \frac{y}{4} = 0,4 \text{ моль}$$

$$w(\text{C}_4\text{H}_{10}) = \frac{0,1}{0,5} \cdot 100 = 20\%$$

$$w(\text{C}_4\text{H}_6) = 80\%$$

№6.

$$m(\text{CuSO}_4) = 200$$

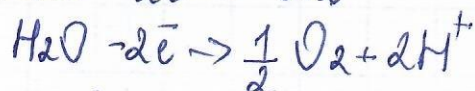
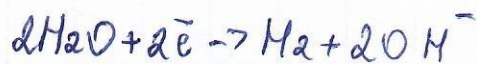
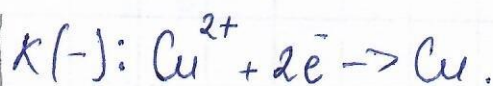
$$w(\text{CuSO}_4) = 16\%$$

$$m(\text{NaOH}) = 200$$

$$w(\text{NaOH}) = 29,8\%$$

$$w(\text{SO}_4^{2-}) = 5,61\%$$

$$m($$



$$n(\text{CuSO}_4) = \frac{m \cdot w}{M} = \frac{200 \cdot 0,298}{74,5} = 0,8 \text{ моль}$$

$$m = \frac{M(\text{SO}_4^{2-}) \cdot n(\text{SO}_4^{2-})}{w(\text{SO}_4^{2-})} = \frac{96 \cdot 0,2}{0,0561} = 342,3$$

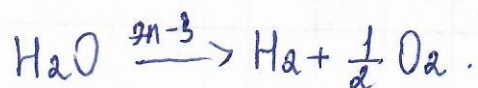
$$400 - (0,2 \cdot 64) - (0,2 \cdot 2) - (0,4 \cdot 71) = 400 - 12,8 - 0,4 - 28,4 = 358,4$$

$$m(\text{ер-гі})_{\text{сac}} = 358 - m(\text{H}_2\text{O}) = 342,32$$

$$m(\text{H}_2\text{O}) = 358,4 - m(\text{H}_2\text{O}) = 342 \rightarrow 358,4 - 342,3 = 16,12 \text{ г}$$

X-09-02

$$V(\text{H}_2\text{O}) = \frac{m}{M} = \frac{16,1}{18} = 0,9 \text{ моль.}$$



$$m(\text{H}_2) = 0,9 \cdot 2 = 1,8 \text{ г.}$$

$$m(\text{O}_2) = 0,9 \cdot 16 = 14,4 \text{ г.}$$

$$Q = 96500 \cdot 2,6 = 250900 \text{ КДж.}$$

к ситог 12,8 г - Cu, 22,2 г H₂Анод 28,4 г Cl₂, 14,4 г O₂.

N4.

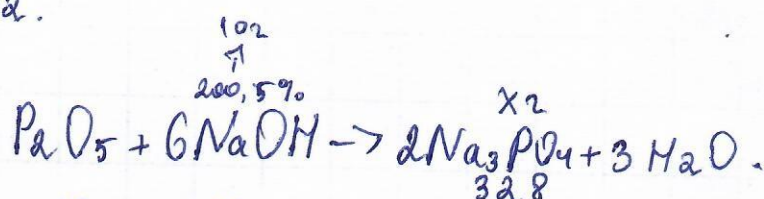
$$m(\text{Ca}_3(\text{PO}_4)_2) = 15,5 \text{ г}$$

$$m(\text{NaOH}) = 200 \text{ г, } 5\%.$$

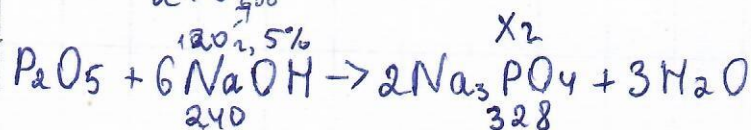
$$m(\text{NaOH}) = 120 \text{ г, } 5\%.$$

$$m(\text{NaOH}) = 40 \text{ г, } 5\%.$$

$$m(\text{Na}_3\text{PO}_4) = ?$$



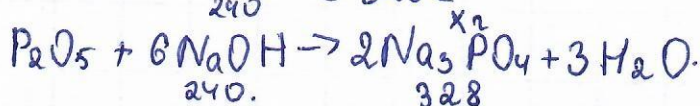
$$X = \frac{10 \cdot 328}{240} = 13,6 \text{ г.}$$



$$600 \text{ — } X$$

$$240 \text{ — } 328.$$

$$X = \frac{600 \cdot 328}{240} = 820 \text{ г}$$



$$2 \text{ — } X$$

$$240 \text{ — } 328.$$

$$X = \frac{2 \cdot 328}{240} = 2,73 \text{ г.}$$