

$K_{29}: X101472$

~1

$$N_A = 6,02 \cdot 10^{23} \frac{1}{\text{mole}}$$

$$m = 155 \text{ r}$$

$$P_u$$


---


$$N_{AT} = ?$$

$$h = \frac{m}{M}$$

$$M(P_u) = 124 \frac{\text{r}}{\text{mole}}$$

$$h = \frac{155 \text{ r}}{124 \frac{\text{r}}{\text{mole}}} = 1,25 \text{ mole}$$

$$N_{\text{mole}} = h \cdot N_A$$

$$N_{\text{mole}} = 1,25 \text{ mole} \cdot 6,02 \cdot 10^{23} \frac{1}{\text{mole}} = 7,525 \cdot 10^{23}$$

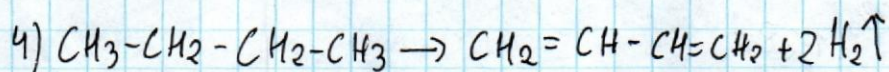
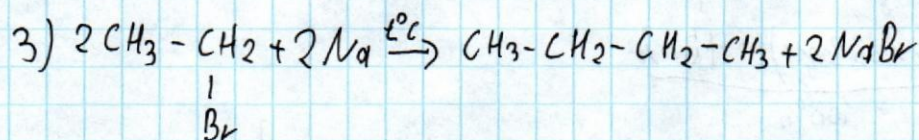
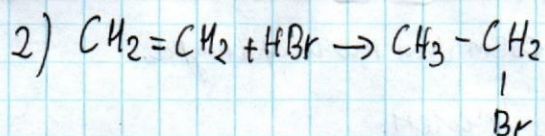
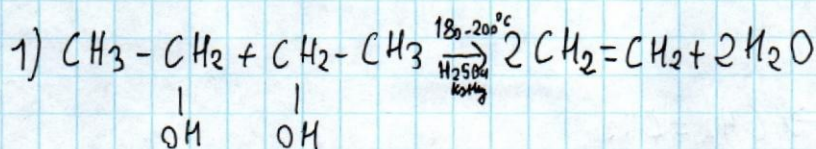
$$N_{\text{mole}} = 1,25 \text{ mole} \cdot 6,02 \cdot 10^{23} \frac{1}{\text{mole}} = 7,525 \cdot 10^{23} \text{ mole}$$

$$N_{AT} = N_{\text{mole}} \cdot 4$$

$$N_{AT} = 7,525 \cdot 10^{23} \text{ mole} \cdot 4 = 30,1 \cdot 10^{23} \text{ mole}$$

$$\text{Answer: } 30,1 \cdot 10^{23} \text{ mole}$$

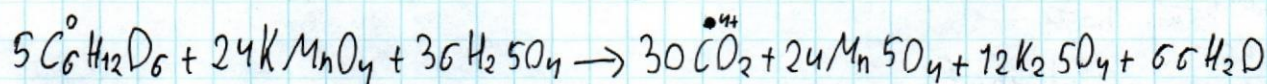
~2



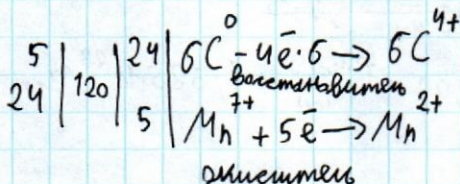
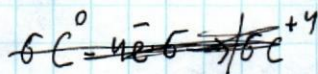


Заг: X101472

~3



C<sub>6</sub>



присоединяет

присоединяет

$$V_m = 22,4 \frac{л}{моль}$$

$$V(\text{соедин}) = 400 \text{ мл}$$

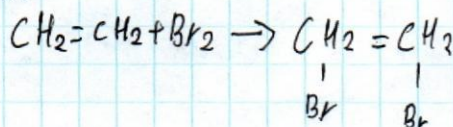
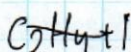
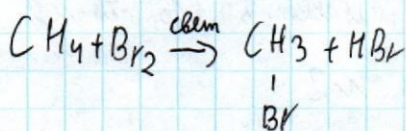
$$C_2H_4 \quad C_2H_2 \quad = 0,41$$

$$m(\text{соедин в воде}) = 40 \text{ г}$$

$$w(Br) = 3,2\%$$

$$w(C_2H_4) = ?$$

~4



Для первой реакции нужен свет или температура.

Поэтому освещаем раствор этилена.

$$m(Br_2) = \frac{m(\text{соедин в воде}) \cdot w(Br)}{100\%}$$

$$m(Br_2) = \frac{40 \text{ г} \cdot 3,2\%}{100\%} = 1,28 \text{ г}$$

$$n(Br_2) = \frac{m(Br_2)}{M(Br_2)}$$

$$n(Br_2) = \frac{1,28 \text{ г}}{160 \frac{г}{моль}} = 0,008 \text{ моль}$$

$$n(Br_2) = n(CH_2=CH_2) = 0,008 \text{ моль}$$

$$V(CH_2=CH_2) = n \cdot V_m$$

$$V(CH_2=CH_2) = 0,1792 \text{ л}$$

$$w(C_2H_2=CH_2) = \frac{V(CH_2=CH_2)}{V(\text{соедин})} \cdot 100\%$$

$$w(CH_2=CH_2) = \frac{0,1792 \text{ л}}{0,41} \cdot 100\% = 44,8\%$$

Ответ: 44,8%



Заг: X101472

~5

$$V_m = 22,4 \frac{\text{л}}{\text{моль}}$$

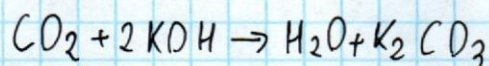
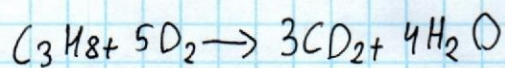
$$t = 20^\circ \text{C}$$

$$P = 95000 \text{ Па}$$

$$V(\text{C}_3\text{H}_8) = 100 \text{ л}$$

$$w(\text{KOH}) = 10\%$$

$$\rho(\text{р-ра}) = 1,09 \frac{\text{г}}{\text{мл}}$$



$$n(\text{C}_3\text{H}_8) = \frac{V}{V_m} \approx 4,5 \text{ моль}$$

$$n(\text{C}_3\text{H}_8) : n(\text{CO}_2) = 1 : 3$$

$$n(\text{CO}_2) = 4,5 \text{ моль} \cdot 3 = 13,5 \text{ моль}$$

$$n(\text{CO}_2) : n(\text{KOH}) = 1 : 2$$

$$n(\text{KOH}) = 27 \text{ моль}$$

$$m(\text{KOH}) = n \cdot M$$

$$m(\text{KOH}) = 27 \text{ моль} \cdot 56 \frac{\text{г}}{\text{моль}} = 1512 \text{ г}$$

$$m(\text{р-ра}) = \frac{m(\text{KOH})}{10\%} \cdot 100\%$$

$$m(\text{р-ра}) = 15120 \text{ г}$$

$$V = \frac{m}{\rho}$$

$$V(\text{р-ра}) = \frac{15120 \text{ г}}{1,09 \frac{\text{г}}{\text{мл}}} = 13871,56 \text{ мл}$$

Ответ: 13871,56 мл

x  $V(\text{р-ра}) = ?$   
минимальный



$$2.45 - 0.05 = 2.40$$

$$2.40 - 0.05 = 2.35$$

$$2.35 - 0.05 = 2.30$$

$$2.30 - 0.05 = 2.25$$

$$2.25 - 0.05 = 2.20$$

$$2.20 - 0.05 = 2.15$$

$$2.15 - 0.05 = 2.10$$

$$2.10 - 0.05 = 2.05$$

$$2.05 - 0.05 = 2.00$$

$$2.00 - 0.05 = 1.95$$

$$1.95 - 0.05 = 1.90$$

$$1.90 - 0.05 = 1.85$$

$$1.85 - 0.05 = 1.80$$

$$1.80 - 0.05 = 1.75$$

$$1.75 - 0.05 = 1.70$$