

N3.



Бер:

$m(Mg) = 0.291$

$V(HCl) = 50ml$

$C(HCl) = 0.1M$

1) $n = \frac{m(Mg)}{M_r(Mg)} = \frac{0.291}{24} = 0.0121$

$\frac{50}{44.8} = \frac{x}{22.4}$

$x = \frac{50 \cdot 22.4}{44.8} = 1.125$

Т.к. $n(MgCl_2) = ?$

2) $V(MgCl_2) = ?$

2) $n = \frac{V(HCl)}{C(HCl)} = \frac{50}{0.1} = 0.05$



Маяабы:

$m(MgCl_2) = 106g$

$V(MgCl_2) = 25ml$

$\frac{50.1}{44.8.1} = \frac{x}{952}$

$x = \frac{50.1 \cdot 952}{44.8.1} = 106$



1) ~~A~~ $m(MgCl_2) = 106g$

Т.к. $W(Cl_2) = ?$

Мәлүм:

$106g - 100\%$

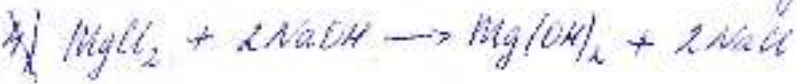
$M_r(Cl_2) = 71$

Т.к. $W(Cl_2) = ?$

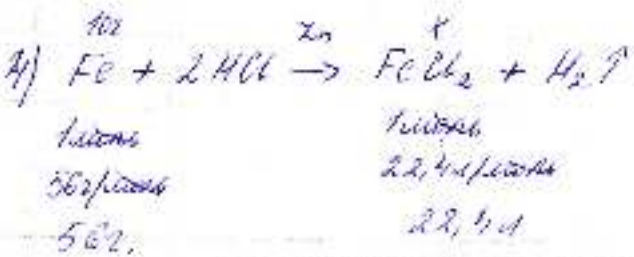
$x = \frac{71 \cdot 100}{106} = 66.9\%$

3

Маяабы: $W(Cl_2) = 66.9\%$



$\frac{10}{56} = \frac{x}{22.4}$



Бер:

$m(Fe) = 10g$

Т.к. $W(FeCl_2) = ?$

Маяабы: $V(FeCl_2) = 4.1$

$x = \frac{10 \cdot 22.4}{56} = 4.1$

Химия

Задача №4

$$1) M(C_nH_{2n}) = \rho \cdot V_M = 3,75 \text{ г/л} \cdot 22,4 \text{ л/моль} = 84 \text{ г/моль}$$

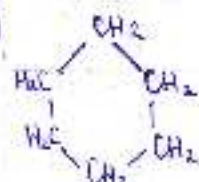
$$12n + 2n = 84$$

$$14n = 84$$

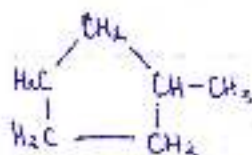
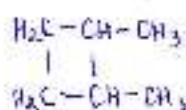
$$n = 6$$

Это циклоалкан, т.к. углеводород не обесцвечивает р-р $KMnO_4$, но соответствует формуле C_nH_{2n} .

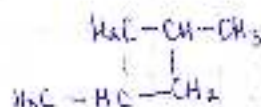
2)



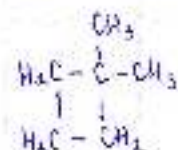
циклогексан

(метилциклогексан)
метилциклопентан

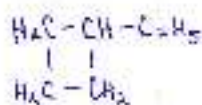
1,2-диметилциклобутан



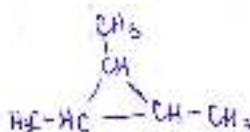
1,3-диметилциклобутан



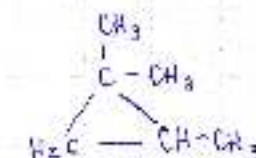
1,1-диметилциклобутан



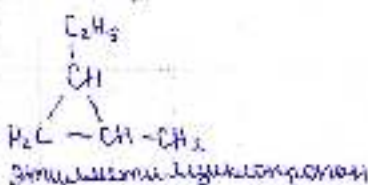
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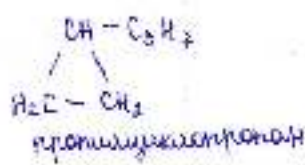
триметилциклобутан



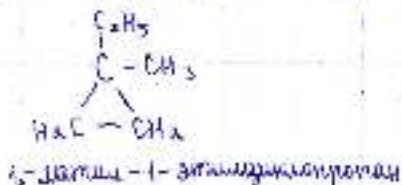
1,2-диметил-2-этилциклопропан



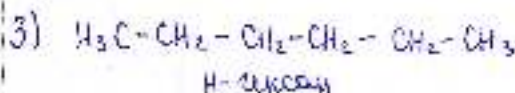
этилметилциклопропан



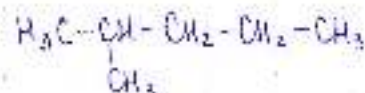
пропилциклопропан



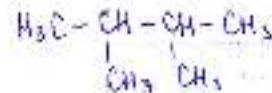
1,2-диметил-1-этилциклопропан



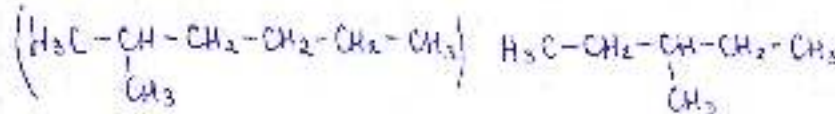
н-гексан



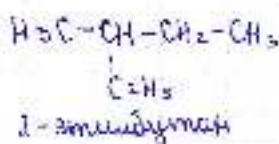
2-метилпентан



2,3-диметилбутан



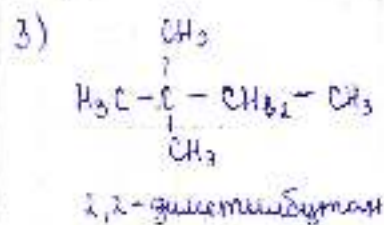
3-метилпентан



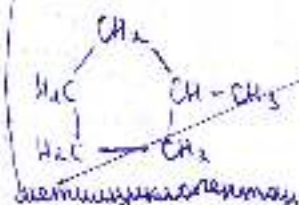
1-этилбутан

Химия

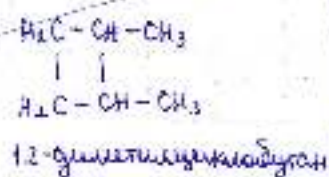
Задача №4



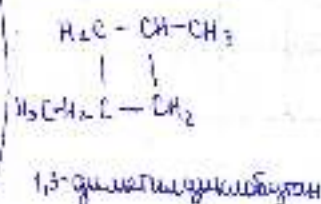
4) Вещество X



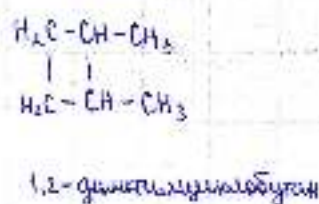
Вещество Y



Вещество XY



Вещество X



Задача №2

Б- Cl_2 ; Г- CO , ~~Д~~ А- CuO

Задача №3

1) MgCl_2

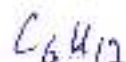
$$\omega(\text{Cl}) = \frac{35,5 \cdot 2}{24 + 71} \cdot 100\% \approx 37,37\%$$

2) А- MgCl_2 

9) C_6H_{12} - Алкені.

$$\rho(\text{пар}) = 3,75 \text{ г/см}^3$$

$$V = \rho \cdot m = 3,75 \cdot 22,4 = 84 \text{ см}^3$$

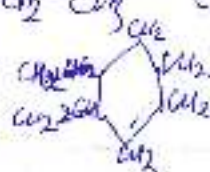
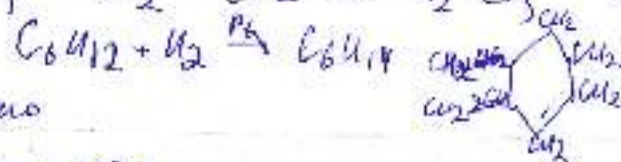
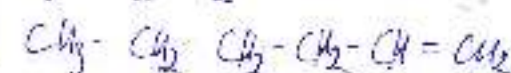
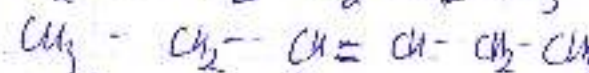
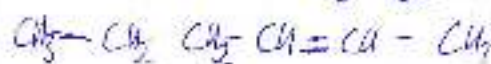
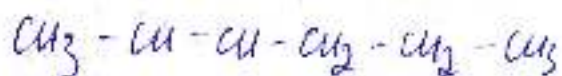


$$12n + 2n = 84$$

$$14n = 84$$

$$n = 84 : 14$$

$$n = 6 \quad C_6H_{12}$$



1) Дано

$$m(\text{алкен}) = 29,20$$

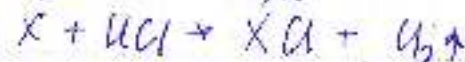
$$V(H_2) \uparrow = 25,95 \text{ см}^3$$

$$m(\text{алк}) = 219,442$$

$$m_{H_2} = 28,132$$

$$29,20$$

$$2,16$$

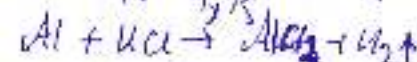


$$n(H_2) = \frac{V}{V_m} = \frac{25,95}{22,4} = 1,152$$

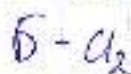
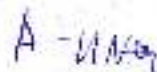
$$m_2 = m_1 - m_2 = 29,20 - 28,132 = 9,76$$

$$m_3 = m_2 + m_3 = 9,76 + 28,132 = 32,12$$

$$\Delta m = \frac{m}{n} = \frac{29,20}{1,152} = 25,32 \text{ г/моль}$$



2)



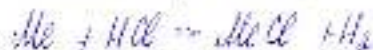
$$3,45 \cdot 22,4 = 84$$

$$\begin{aligned} & \text{HCl} + \text{H}_2\text{O} \rightarrow \text{HCl} + \text{H}_2\text{O} \\ & \begin{array}{r} 22,40 \cdot x \\ 54 \end{array} \quad \begin{array}{r} 25,35 \\ 2 \end{array} \\ & \begin{array}{r} 0,015 \\ 84 \end{array} \quad \begin{array}{r} 29,10765 \\ 84 \end{array} \\ & x = \frac{29,10765}{84} = \end{aligned}$$

$$\begin{aligned} & \text{Zn} + \text{HCl} \rightarrow \text{ZnCl}_2 + \text{H}_2 \\ & \text{H}_2 = \frac{34,345}{22,4} = 24,5 \\ & \text{C}_6\text{H}_6 = \end{aligned}$$

N1. 25% — 1,185 (NaOH)

29 - 20,3 = 8,22



$n(H_2) = \frac{1,185 \cdot 95}{0,082 \cdot 293} = \frac{112,575}{24,026} = 4,68$ моль

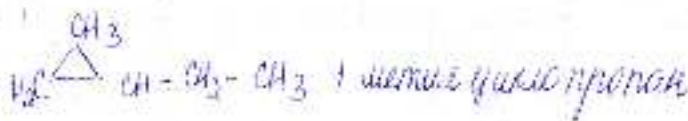
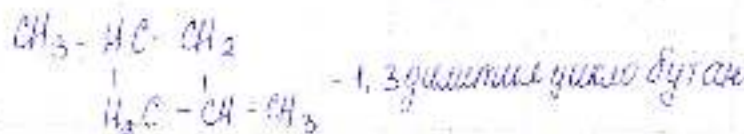
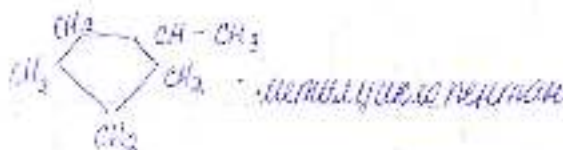
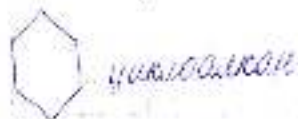
$Me = \frac{19,44}{1,08} = 18$

$m = 29 + 28,43 = 57,43$

N4. $d = \rho \cdot V_m = 3,75 \cdot 22,4 = 84 \text{ г/моль}$

$d(x) = 12 \text{ г/моль} \cdot 1,6 + 1 \text{ г/моль} \cdot 12 = 24 \text{ г/моль}$

Бұл ф-а C_6H_{12} - циклоалкен



N2. B. Cl_2

$r = 00$

$0,404 \cdot 2 \cdot 100 = 80,8\%$

$\frac{d}{d+m} = 0,202$

$d = \frac{m \cdot 35,5 \cdot 0,202}{1 - 0,202} = 9m$

$m_1 = 1$

$M_1 = 9$

$m_2 = 2$

$M_2 = 18$

$m_3 = 3$

$M_3 = 27 \rightarrow M$

x H_2

A H_2O_3

B HCl_3

$$n(\text{HCl}) = 0,037 \text{ моль}$$

$$n(\text{H}_2\text{O}) = 0,224 \text{ моль}$$

№3.

$$\text{Ag} + \text{Cl} \rightarrow \text{AgCl} \downarrow$$

$$n(\text{Cl}) = n(\text{AgCl}) = \frac{0,832}{143,5} \cdot 10^{-3} \text{ моль}$$

$$n_0(\text{Cl}) = 8,8 \cdot 10^{-3} \text{ моль}$$

$$\mu(A) = \frac{38,5}{0,464} = 16,509$$