

Есеп №1

1.1 | 12 | масса

12 | 5 | 17

$m(H_2O) = 29,202$  (HCl өрдегі)

$m(H_2) = 25,952$  (байлғы)

$m(H_2) = 19,442$  (жазылған)

Т.е.  $m(қалпа O_2) = 28,432$  (жазылған)

Т.у.к.к.  $H_2O$  - ? (жазылған)  
(%)

а)  $\rho = 1,1852$  (г/см<sup>3</sup>). КОИ - қашық гидрокеур

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

Есеп №2

A	B	C	D	X	n	қажы.	масса
3	2	3	2	3	1	1	16.

В заттар (X) =  $\omega = 20,2\%$

$V_{зат} = m = 52$

$B \cdot n H_2O = 9,04$

X - Y

Д заттар құрамына бір X атомы  $\omega = 19,01\%$

$C = \omega = 67,61\%$

Есеп 3.

$MgCl_2 \cdot 6H_2O$  - бөлшек табылған.

$MgCl_2 = 95$

$6H_2O = 6 + 2 + 16 = 24$

Дано:

1)  $O = 4 \text{ моль}, Si = 2 \text{ моль}, H = 1 \text{ моль}$  в смеси =  $Si = 7 \text{ моль}, H = 4 \text{ моль}, O = 4 \text{ моль}$

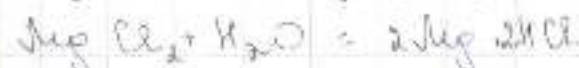
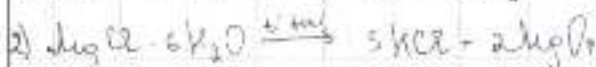
2)  $0,25 \cdot 0,1165 \approx 0,03$ ,  $V_{\text{смеси}} = \frac{56}{22,4} \approx 2,5$

Задача 2



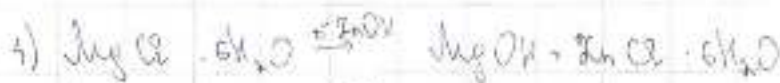
Задача 3

$w(Cl) = 7,4\%$       (A) =  $MgO$



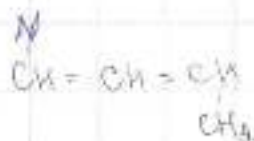
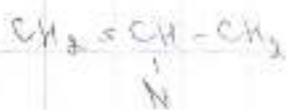
3)  $pH_1 = 3,65$ ,  $pH_2 = 2,4$

$MgO + 2HCl = MgCl_2 + H_2O$  - p = 932

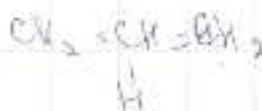
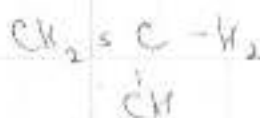


Задача 4

1)  $C_2H_5N - X$



а)  $\gamma - C_8H_8$



1 Бері:  $m(\text{қоспа}) = 29,20 \text{ г}$   $V(\text{H}_2) = 25,95 \text{ л}$   $m(\text{сыйық}) = 9,76 \text{ г}$

Шешуі: 1)  $\overset{2,3x}{\text{Li}} + \overset{15}{\text{HCl}} \rightarrow \overset{2,3x}{\text{LiCl}} + \overset{15}{\text{H}_2} \uparrow$   
 $\overset{2,3x}{\text{Li}} + \overset{15}{\text{H}_2\text{SO}_4} \rightarrow \overset{2,3x}{\text{Li}_2\text{SO}_4} + \overset{15}{\text{H}_2} \uparrow$

2)  $\overset{2,3x}{\text{Li}} + \text{O}_2 \rightarrow \overset{2,3x}{\text{Li}_2\text{O}}$   
 $4 \overset{2,3x}{\text{Li}} + \text{O}_2 \rightarrow \overset{2,3x}{\text{Li}_2\text{O}}$  }  $5 \times 632$

III)  $n(\text{H}_2) = \frac{25,95}{22,4} = 1,15 \text{ моль}$   
 IV)  $m = nM = 1,15 \times 2 = 2,3 \text{ г}$   
 V)  $2,3x + 2,3x = 29,2 \text{ г}$   
 $4,6x = 29,2$   
 $x = 6,32$

VI)  $M(\text{Li}) = \frac{m}{n} = \frac{9,76}{1,15} = 8,48 \text{ г/моль}$

Шешуі:  $M(\text{Li}) = 6 \text{ г/моль}$   
 Шешуі:  $M(\text{Li}) = 6 \text{ г/моль}$

2. Шешуі:  $M(\text{KOH}) = \frac{1165 \cdot 1000 \cdot 25}{1000 \cdot 5} = 2372$   
 $M(\text{KOH}) = 56 \text{ г/моль}$   
 III)  $n(\text{KOH}) = \frac{2372}{56} = 42 \text{ моль}$   
 IV)  $V = nV_m = 42 \cdot 22,4 = 940,8 \text{ л}$   
 Шешуі:  $V(\text{KOH}) = 940,8 \text{ л}$

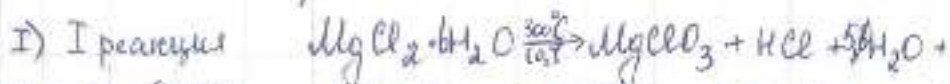
2-Есеп: Берілгені: Шешуі: 1) Газ бір жемістен құралған =  $\text{O}_3$  (озон) атмосфера газы.  
 А газ -  $\text{C}$  (графит) +  $\text{O}_3 + \text{H}_2\text{SO}_4 \rightarrow \text{CO}_2 \uparrow$   
 Б газ -  $\text{O}_3$  2) Газ графитті қозғару арқылы шығару =  $\text{C}$  (графит) +  $\text{O}_2 \rightarrow \text{CO}_2 \uparrow$   
 В газ -  $\text{O}_3$   
 Г газ -  $\text{CO}_2 \uparrow$   
 Д газ -  $\text{O}_3$

4-есеп: Белгісіз көмірсутек:  $\rho = 3,75 \text{ г/л}$   
 Шешуі: 1)  $m = \rho V \Rightarrow \rho = \frac{m}{V}$ ,  $V_{\text{г.ж}} = 22,4 \text{ л} \Rightarrow \rho = \frac{m}{22,4} = 3,75 = \frac{m}{22,4} \Rightarrow m = 84 \text{ г/моль}$   
 көмір перманганаттан түссіздендірілген белгісіз көмірсутек:  $\text{C}_n\text{H}_{2n}$  сияқты  $\Rightarrow \text{C}_6\text{H}_{12}$  сияқты

2. Изомерлері: 1)  $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3 = \text{C}_5\text{H}_{12}$  - пентан - 1  
 2)  $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH}_2 - \text{CH}_3 = \text{C}_5\text{H}_{10}$  - пентен - 2  
 3)  $\text{CH}_3 - \text{CH}_2 - \text{CH} = \text{CH} - \text{CH}_3 = \text{C}_5\text{H}_{10}$  - пентен - 2  
 4)  $\text{CH}_3 - \overset{\text{CH}_3}{\underset{\text{CH}_3}{\text{C}}} - \text{CH}_3 = \text{C}_5\text{H}_{12}$  - 2,2-диметилпропан - 1  
 5)  $\text{CH}_3 - \text{CH}_2 - \text{CH} = \text{CH} - \text{CH}_2 = \text{C}_5\text{H}_{10}$  - 1,4-дициклопентен - 1  
 6)  $\text{CH}_3 - \text{CH}_2 - \overset{\text{CH}_3}{\text{C}} = \text{CH}_2 = \text{C}_5\text{H}_{10}$  - 2-метилбутен - 1  
 7)  $\text{CH}_3 - \text{CH}_2 - \text{CH} = \text{CH} - \text{CH}_2 = \text{C}_5\text{H}_{10}$  - 1,3-циклопентен - 1  
 8)  $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH}_2 - \text{CH}_3 = \text{C}_5\text{H}_{10}$  - 2-пентен - 2  
 9)  $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH}_2 - \text{CH}_3 = \text{C}_5\text{H}_{10}$  - 2-пентен - 2  
 10)  $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH}_2 - \text{CH}_3 = \text{C}_5\text{H}_{10}$  - 2-пентен - 2

2. X газын сутекпен әрекеттестіру:  $\text{C}_6\text{H}_{12} + \text{H}_2 \xrightarrow{\text{Pt}} \text{C}_6\text{H}_{14}$  (гексан)

№3. Есеп: Бишорит



Найға болған өнімнің теориялық массасын үні:  $w(Cl_2) = \frac{36,5}{107,5} \cdot 100\% = 33,9\%$

