



Химия

Площадка написания
МАОУ СШ № 144

Шифр 87824 Класс 10

Вариант 8 Дата 26.02.2022

Заполняется проверяющим строго по образцу

Образец заполнения: 1 2 3 4 5 6 7 8 9 0

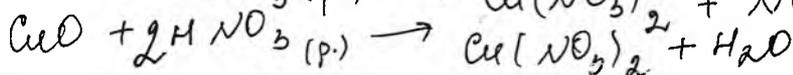
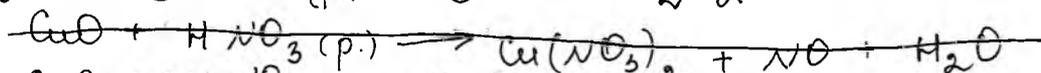
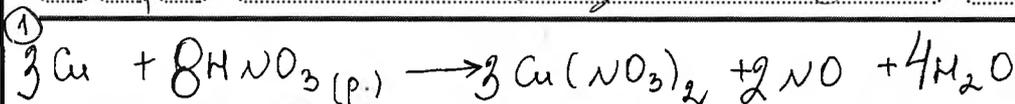
1	2	3	4	5	6	7	8	9	0
7	0	1	8	9	4	0	2	4	1
0	0	1	5	8	0	4	0		

Оценка цифрами

Оценка прописью

Подпись

8	2	5	всего баллов две точки и один элемент	
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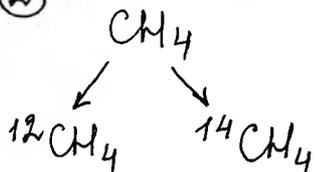


$$V(\text{NO}) = \frac{1,12}{22,4} = 0,05 \text{ моль}$$

$$\frac{V(\text{NO})}{V(\text{Cu})} = \frac{2}{3} \Rightarrow V(\text{Cu}) = \frac{0,05}{2} \cdot 3 = 0,075 \text{ моль} \Rightarrow m(\text{Cu}) = 0,075 \cdot 64 = 4,82$$

$$w(\text{CuO}) = \frac{6 - 4,8}{6} \cdot 100\% = 20\% = 75$$

②



$$V_{\text{см.}} = \frac{4,48}{22,4} = 0,2 \text{ моль}$$

Пусть $V(^{12}\text{CH}_4) = x \text{ моль}$, тогда

$$V(^{14}\text{CH}_4) = 0,2 - x \Rightarrow$$

$$3,4 = V(^{12}\text{CH}_4) \cdot M(^{12}\text{CH}_4) + V(^{14}\text{CH}_4) \cdot M(^{14}\text{CH}_4)$$

$$3,4 = x \cdot 16 + (0,2 - x) \cdot 18$$

$$3,4 = 16x + 3,6 - 18x$$

$$-0,2 = -2x$$

$$x = 0,1 \text{ моль}$$

Проверю:

$$0,1 \cdot 16 + 0,1 \cdot 18 = 3,4$$

$$w(^{14}\text{CH}_4) = \frac{0,1 \cdot 18}{3,4} \cdot 100\% = 52,94\%$$

= 180



$$(ab)c = a(bc)$$

$$E = mc^2$$



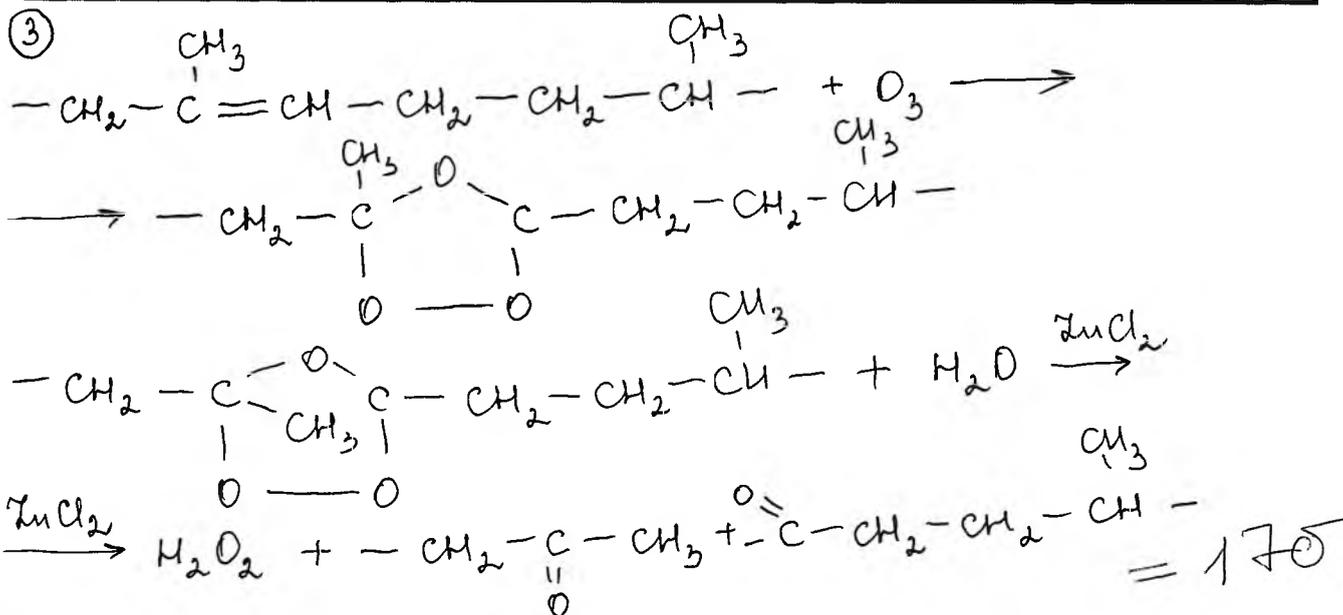
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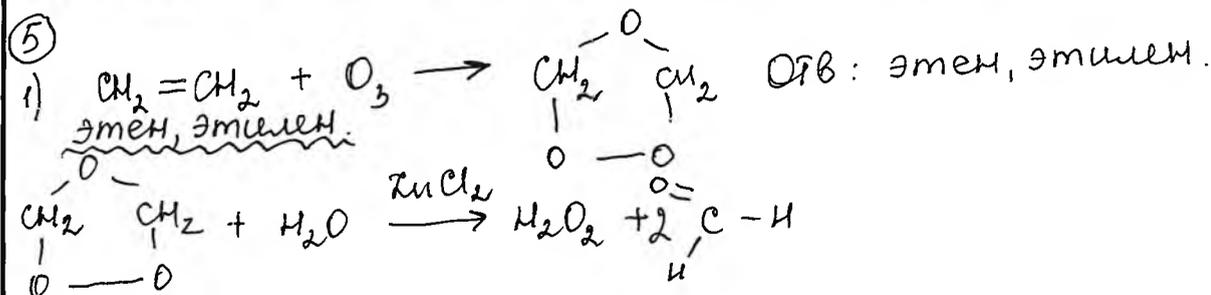
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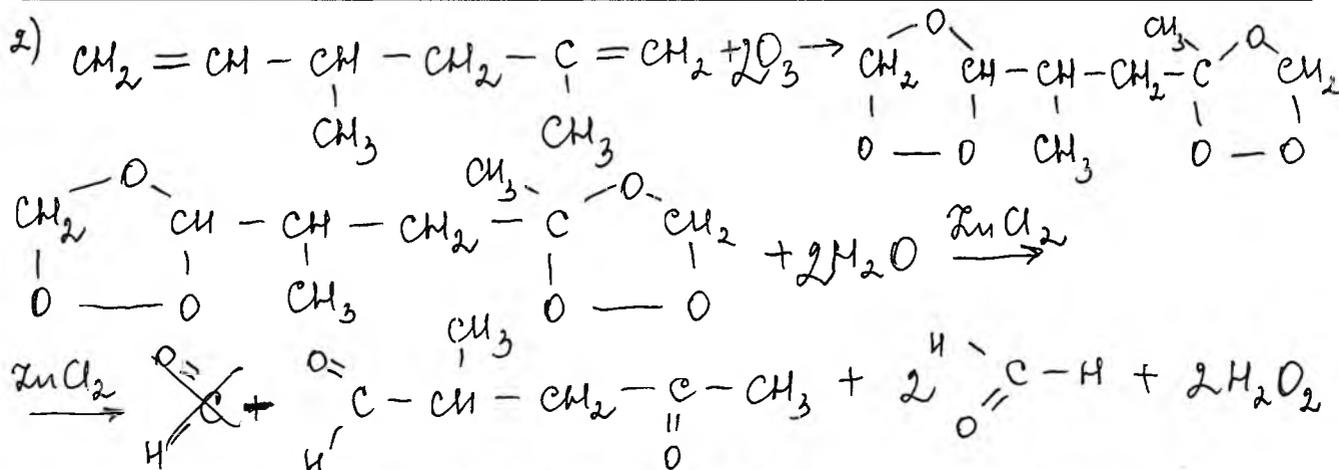


④ а) \square - ароматично, т.к.: 1) есть сопряжённая система;
2) подставляем число e^- в формулу: $2N = x$;
 $2N = 4$; $N = 2$ - целое число \Rightarrow ароматично //

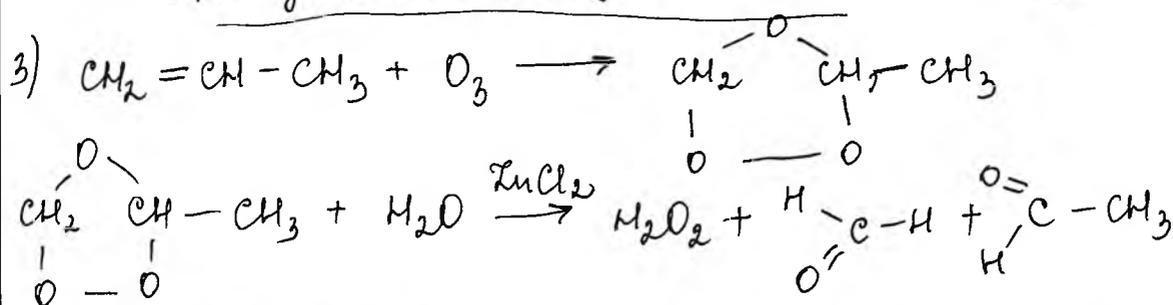
б) $\begin{array}{c} \text{NH} \\ | \\ \text{NH} \end{array} \begin{array}{c} \text{NH} \\ | \\ \text{NH} \end{array}$ - неароматично, т.к. нет сопряжённой системы //

в) $\begin{array}{c} \text{NH} \\ | \\ \text{NH} \end{array} \begin{array}{c} \text{NH} \\ | \\ \text{NH} \end{array}$ - ароматично, т.к. $2N = 18$ ($9 \ominus$ по $2e^-$) $\Rightarrow N = 9$ - целое число = ароматичность. = 45

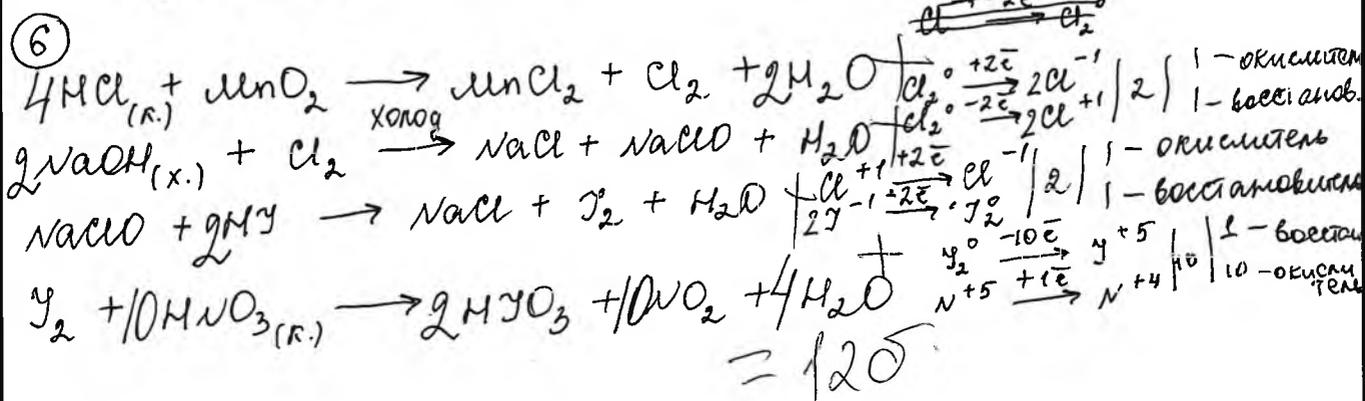




Отв: 3,5-диметилгексадиен-1,5 = 245.



Отв: ~~метилпропен~~ пропен.





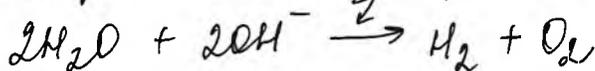
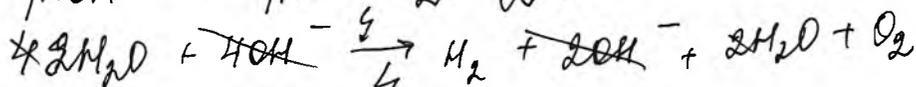
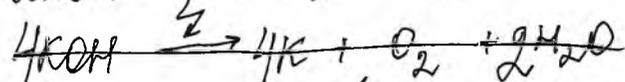
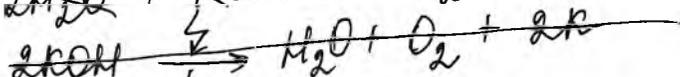
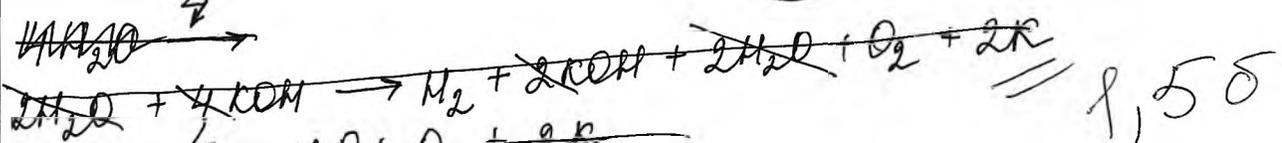
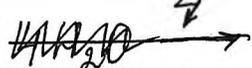
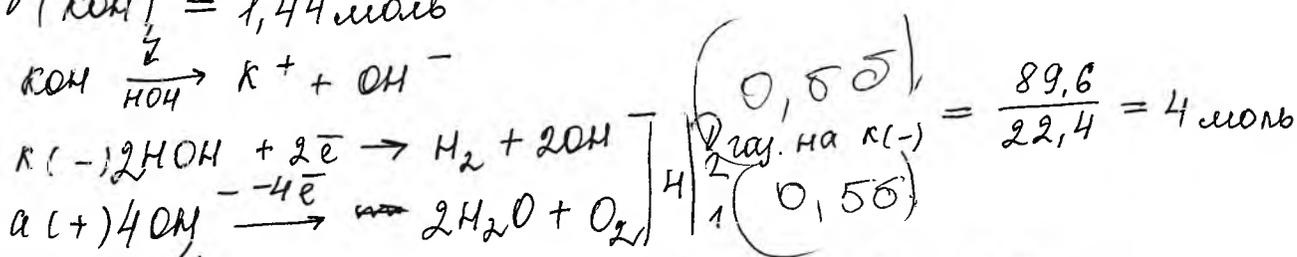
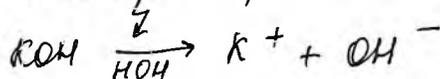
8

$$V(H) \quad (300 \cdot 1,2)$$

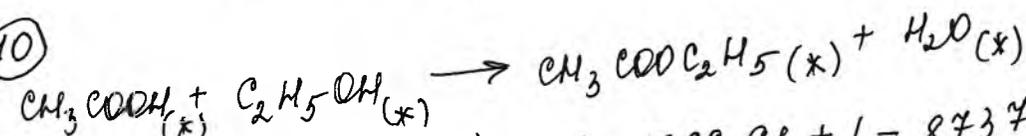
$$m(KOH)_{p-p} = 360z$$

$$m(KOH) = 360 \cdot 0,224 = 80,64z$$

$$D(KOH) = 1,44 \text{ г/мл}$$



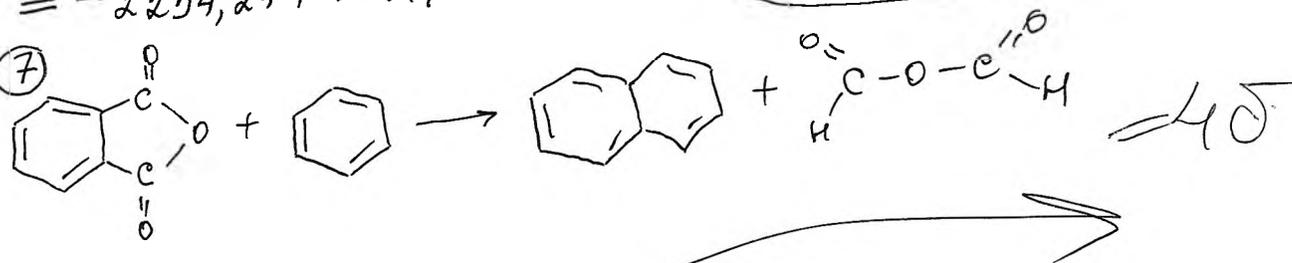
10



$$Q_{xp} = (-2254,21 + 0) - (-1366,91 + (-873,79)) =$$

$$= -2254,21 + 1366,91 + 873,79 = -13,51 \text{ кДж}$$

7





$(ab)c = a(bc)$ $E = mc^2$

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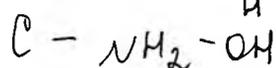
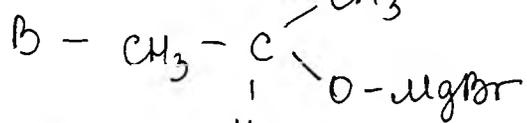
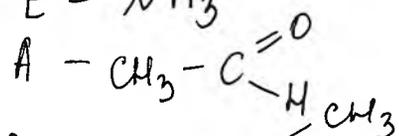
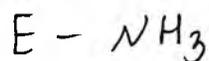
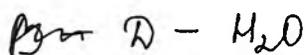
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9



= 30

