

IV BOB. 11-MAVZU.



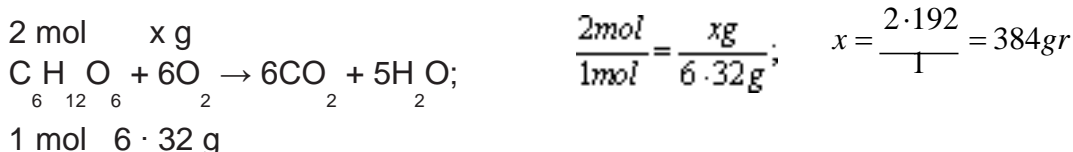
Bobga oid masala va mashqlar yechish

O'rganiladigan natijalar

- Havo tarkibi
- Kislородning xossalari

1. 2 mol glyukozani oksidlanish uchun zarur bo'lgan kislород massasini aniqlang.

Yechish:



Javob: 384 g kislород zarur

2. 100 dm³ havoda 21 dm³ kislород mavjud bo'lsa, o'lchamlari 4 x 4 x 3 m bo'lgan xonadagi kislородning hajmini hisoblang.

Yechish: 1) Xonaning hajmini topish.

$$V = 4 \text{ m} \cdot 4 \text{ m} \cdot 3 \text{ m} = 48 \text{ m}^3$$

$$2) 100 \text{ dm}^3 = 10 \text{ m}^3; \quad 21 \text{ dm}^3 = 2,1 \text{ m}^3$$

$$3) \begin{cases} 10 \text{ m}^3 \text{ havoda } 2,1 \text{ m}^3 \text{ kislород bo'lsa,} \\ 48 \text{ m}^3 \text{ havoda qancha kislород bo'ladi.} \end{cases} \quad \begin{cases} 10 \text{ m}^3 \text{ ----- } 2,1 \text{ m}^3 \\ 48 \text{ m}^3 \text{ ----- } x \text{ m}^3 \end{cases} \quad x = 10,08 \text{ m}^3$$

Javob: 10,08 m³

3. 4,9 g massali kaliy xloratning (KClO₃) parchalanish reaksiyasi natijasida hosil bo'lgan kaliy xlorid va kislород massaasini aniqlang.

Berilgan:

$$m(\text{KClO}_3) = 4,9 \text{ g}$$

$$m(\text{KCl}), V(\text{O}_2) - ?$$

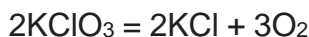
Yechish:

1) Masaladagi KClO₃ ning mol birliklarda ifodalab olamiz.

$$n / \text{KClO}_3 = \frac{m}{M} = \frac{4,9 \text{ g}}{122,5 \frac{\text{g}}{\text{mol}}} = 0,04 \text{ mol};$$

2) Reaksiya tenglamasini tuzib olamiz:

$$0,04 \text{ mol} \quad x \quad y$$



$$2 \text{ mol} \quad 2 \text{ mol} \quad 3 \text{ mol}$$

$$\frac{0,04}{2} = \frac{x}{2} = \frac{y}{3} \quad \text{tenglamadan}$$

$$x = \frac{2 \cdot 0,04}{2} = 0,04 \text{ mol KCl} \quad y = \frac{0,04 \cdot 3}{2} = 0,06 \text{ mol O}_2$$

3) 0,04 mol KCl ni m = ?

$$m / \text{KCl} = M \cdot n = 74,5 \cdot 0,04 = 2,98 \text{ gr.}$$



4) $0,06 \text{ mol O}_2$ ni $m = ?$

$$m / \text{O}_2 / = 96 \text{ gr} \cdot 0,06 = 5,76 \text{ gr.}$$

Javob: 2,98 gr KCl va 5,76 gr O_2

Mustaqil yechish uchun mashq va masalalar

1. Formulalarning qismlarini chapdan o'ngga va yuqoridan pastga birlashtirib, oksidlarining kimyoviy formulalarini yozing. Barcha oksidlarning yig'indisi uglerodning nisbiy molekulyar og'irligiga teng.

Mg

CaO S

K_2O ZnO_2 Fe_2

PO_2 CuO Al_2O_3 Li

Na_2O BaO Ag_2O CO O_2

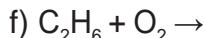
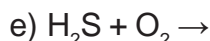
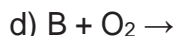
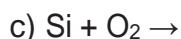
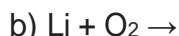
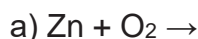
2. Quyida keltirilgan gazlardan qaysilari havodan yengil: karbonat angidrid, azot, kislorod, metan, is gazi, ammiak?

3. Laboratoriyada oz miqdordagi gazlarni yig'ishning qanday usullarini bilasiz? Ushbu usullar o'rtasidagi farq nima?

4. Quyosh nurlari ta'sirida fotosintez jarayonida yashil o'simliklarda hosil bo'ladigan glyukoza qanday moddalardan hosil bo'ladi?

5. Ozonning nisbiy molekulyar massasini hisoblang. 9,6 gr ozon necha mol va unda nechta molekula bo'ladi?

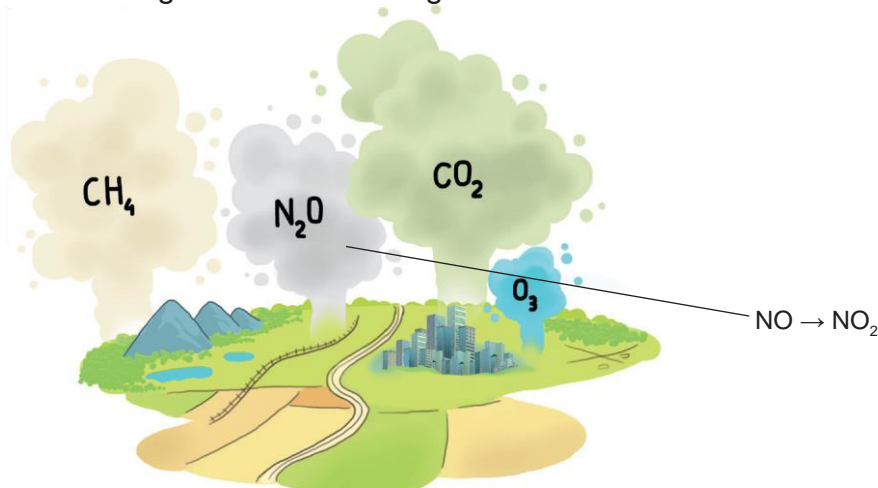
6. Kimyoviy reaksiyalar tenglamalarini yakunlang va koeffitsientlarni tartibga soling:



7. Bir kishi kuniga 720 litr kislorodni yutadi. 5 kishidan iborat kosmik kema ekipaji uchun iste'mol qilingan kislorod miqdori qancha havo hajmini o'z ichiga oladi?

8. Yoqilg'ini yoqishda sodir bo'ladigan salbiy oqibatlar qanday? Yoqilg'i yonishi natijasida yuzaga kelishi mumkin bo'ladigan salbiy holatlarni qanday kamaytirish mumkin?

9. Keltirilgan rasmni izohlang.



10. Oltingugurt kislorodda yondirilganda hosil bo'ladigan moddada kislorodning massa ulushini hisoblang. Kimyoviy reaksiya tenglamasini yozing..

