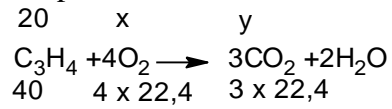


Care este procentul volumetric de azot in amestecul rezultat la arderea a 20 grame propina intr-un volum de 450 L aer (cu 80% N₂), dupa condensarea apei?

$$\text{Aerul contine : } \frac{20}{100} \cdot 450 = 90 \text{ litri O}_2 \quad \text{si} \quad \frac{80}{100} \cdot 450 = 360 \text{ litri N}_2$$

De pe ecuatia reactiei:



$$x = \frac{20 \cdot 4 \cdot 22,4}{40} = 44,8 \text{ litri O}_2 \text{ necesar arderii, deci } 90 - 44,8 = 45,2 \text{ litri O}_2 \text{ exces}$$

Amestecul gazos final contine:

$$\left\{ \begin{array}{l} 45,2 \text{ litri O}_2 \text{ exces} \\ 360 \text{ litri N}_2 \\ y = \frac{20 \cdot 3 \cdot 22,4}{40} = 33,6 \text{ litri CO}_2 \end{array} \right.$$

$$V_{\text{total}} = 438,8 \text{ litri gaze (45,2 + 360 + 33,6)}$$

438,8 litri gaze.....360 litri N₂

100.....p

$$p = \frac{100 \cdot 360}{438,8} = 82,04 \% \text{ N}_2$$