Question #81323

How many grams of O2(g) are needed to completely burn 78.3 g of C3H8(g)?

Answer:

The mass of oxygen, which is needed to burn 78.3 g of propane, is equal to 284.73 g.

According to the chemical equation, the mass of oxygen, which is needed to burn 78.3 g of C_3H_8, is equal to:

$$\overset{78.3,g \quad x,g}{C_3H_8 + 5O_2 = 3CO_2 + 4H_2O}$$

$$\overset{44,g \quad 160,g}{x = \frac{78.3 * 160}{44} = 284.73\ g}$$