Question #72655, Chemistry / General Chemistry / Completed

A gas grill burns Propane (C_3H_8) in the presence of more than sufficient Oxygen (O_2). This reaction produces water vapour and Carbon Dioxide. The temperature and pressure conditions are such that 1 mole of each gas occupies 1 litre of volume.

What is the balanced equation for this reaction?

A. C3H8 + $402 \rightarrow 2CO2 + 4H2O$

B. C3H8 + 5O2 \rightarrow 3CO2 + 4H2O

C. $2C3H8 + 6O2 \rightarrow 6CO2 + 8H2O$

D. $2C3H8 + 5O2 \rightarrow 6CO2 + 4H2O$

E. None of the Above

Answer

B.
$$C3H8 + 5O2 \rightarrow 3CO2 + 4H2O$$

Before reaction: After reaction:

C 3 3 H 8 8 O 10 10

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