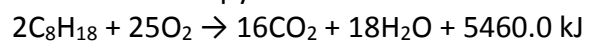


### Question #62996, Chemistry / Other

How many moles of isooctane must be burned to produce 100 kJ of heat under standard state conditions? Show all your work.

**Solution:**

Standard enthalpy of combustion is  $-5460.0 \text{ kJ mol}^{-1}$



$$n = \frac{100 \text{ kJ} \times 2 \text{ mol}}{5460 \text{ kJ}} = 0.037 \text{ mol}$$

**Answer:**

0.037 mol

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