

JQ.4.6.Setup

September 23, 2014

(4.6) Given the lower flammability limit of n-butane ($n - C_4H_{10}$) in air is 1.8% by volume, calculate the adiabatic flame temperature at the limit. Assume that the initial temperature to be $25^\circ C$. Use Table 4.5.

Setup.

You know how to calculate flame temperature. I find it easier to work in mass fractions. Be careful with the mole fraction and mass fraction definitions.