2-e-2

The efficiency of a power plant burner is $\eta = 35\%$. We extract $100\,MW$ of net heat by burning coal on a mass rate of $\dot{m} = 10\,kg/s$. What is the higher heating value of the burned coal?

Answer: 28.5 MJ/kg

Using the formula 2.42 or 2.43 from the book, the HHV or heating value can be calculated.