

AP Chemistry Daily Videos: 6.6 Introduction to Enthalpy of Reaction

[Video #1](#)

1. What is the enthalpy change of a reaction showing/telling us?

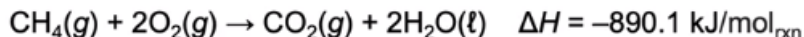
2. At 1:00, you will see two examples what do the signs of ΔH tell us?

3. In the second reaction, how much heat is absorbed for 2 moles of $\text{NO}_{(g)}$?

4. When can heat be considered a reactant? Product?

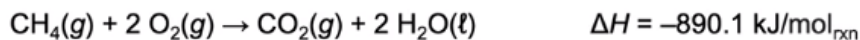
5. Pause the video at 3:13 to read and attempt the problem, then evaluate how you did and identify any errors.

Consider the combustion of methane (CH_4). Suppose 39.8 g of CH_4 combust according to the following balanced equation. How much heat would be absorbed or produced?



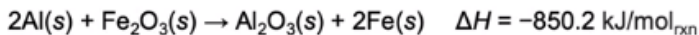
6. Pause the video at 4:47 to read and attempt the problem, then evaluate how you did and identify any errors.

Consider the combustion of methane (CH_4). Suppose that 1,789 kJ of heat are produced. What mass of O_2 was consumed?



7. Pause the video at 6:03 to read and attempt the problem WITHOUT A CALCULATOR, then evaluate how you did and identify any errors.

If 26.98 grams of Al and 320 grams of Fe_2O_3 (molar mass: 160 g/mol) react as completely as possible, how much heat would be released?



- A) 425.1 $\text{kJ/mol}_{\text{rxn}}$
- B) 850.2 $\text{kJ/mol}_{\text{rxn}}$
- C) 1700.4 $\text{kJ/mol}_{\text{rxn}}$
- D) 2440.6 $\text{kJ/mol}_{\text{rxn}}$