Combustion of Butane.

$$2 \text{C}_4\text{H}_{10} + 13\text{O}_2 \rightarrow 8\text{CO}_2 + 10\text{H}_2\text{O}$$

$$\text{C}_4\text{H}_{10} + 6.5\text{O}_2 \rightarrow 4\text{CO}_2 + 5\text{H}_2\text{O}$$

$$\text{C}_4\text{H}_{10} + 6.5\text{O}_2 \xrightarrow{\Delta H_c} 4\text{CO}_2 + 5\text{H}_2\text{O}$$

$$\Delta H_f(\text{C}_4\text{H}_{10}) + 4\Delta H_f(\text{CO}_2) + 5\times\Delta H_f(\text{H}_2\text{O})$$

$$\Delta H_c(\text{C}_4\text{H}_{10}) = 4\times\Delta H_f(\text{CO}_2) + 5\times\Delta H_f(\text{H}_2\text{O}) - \Delta H_f(\text{C}_4\text{H}_{10})$$

$$\Delta H_c(\text{C}_4\text{H}_{10}) = \sum \Delta H_f(\text{products}) - \sum \Delta H_f(\text{reactants})$$
<table>
<thead>
<tr>
<th>Name</th>
<th>Describe</th>
<th>Act</th>
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Name Describe Act

**Name:** Name and make a list of all of the parts or features you can remember.

**Describe:** For each of the things you have named, add a description.

**Act:** For each of the things you have named, tell how they act. What are they doing? What is their function? How do they add or contribute to the whole?