

Concept Review

Section: Changes in Enthalpy During Chemical Reactions

Complete each statement below by writing the correct term in the space provided.

1. In most chemical reactions, the enthalpy change can be measured in terms of energy in the form of _____ released or gained during the reaction. A change in enthalpy in a reaction depends on many variables, but _____ is one of the most important. To standardize the enthalpies of reactions, data for _____ and _____ are presented at the standard thermodynamic temperature of _____ °C, or _____ K. When a chemical equation is used in calculating thermodynamic values, coefficients represent _____ of a substance. The enthalpy change in forming 1 mol of a substance from its elements at 298.15K is called the _____ of formation.

Write the answers to the following questions in the space provided.

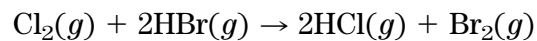
2. Explain how the two types of calorimeters are used to measure the energy released or absorbed in a chemical reaction.

3. State Hess's law.

Concept Review *continued*

Solve the following problems and write your answers in the space provided.

4. What is the enthalpy change for the following reaction? Is the reaction exothermic or endothermic?



5. What is the enthalpy change for the following reaction? Is the reaction exothermic or endothermic?

