

Question #78299

Hess's Law states that _____.

- A. the enthalpy of a given substance is independent of the way it was made
- B. the enthalpy of a given substance depends on the way it was made
- C. ΔH is the change in entropy that occurs in a chemical reaction
- D. $\Delta H_o = \Sigma \Delta H_{fo} \text{ (reactants)} - \Sigma \Delta H_{fo} \text{ (products)}$
- E. None of the Above

The right answer is A. the enthalpy of a given substance is independent of the way it was made.

Prove from Internet source:

Hess's law states that the change of enthalpy in a chemical reaction (i.e. the heat of reaction at constant pressure) is independent of the pathway between the initial and final states. In other words, if a chemical change takes place by several different routes, the overall enthalpy change is the same, regardless of the route by which the chemical change occurs (provided the initial and final condition are the same). [1]

Reference:

[1] https://en.wikipedia.org/wiki/Hess%27s_law

Answer provided by AssignmentExpert.com