

Question #78287, Chemistry / General Chemistry

_____ states that the entropy of the universe must always either increase or remain the same.

- A. The First Law of Thermodynamics
- B. The Second Law of Thermodynamics
- C. Gibbs Free Energy Law
- D. Hess's Law
- E. None of the Above

Solution: The Second Law of Thermodynamics is concerned with the direction of natural processes. Total entropy (S) can never decrease over time for an isolated system because the entropy of an isolated system spontaneously evolves toward thermodynamic equilibrium: the entropy should stay the same or increase.

Answer: B

Source: https://en.wikipedia.org/wiki/Second_law_of_thermodynamics