

Review of: "Systematically Challenging Three Prevailing Notions About Entropy and Life"

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The author systematically challenges, with multiple novelties, three notions prevailing in diverse disciplines, which are of significant importance to better understand the form of Entropy in physics, chemistry, and biology. Although the current theory has been widely used in the scientific community to describe the inherent connections in diverse disciplines, it is still not quite well suited for every setting. Hope the work can receive much more attention and support.

3.6. A prevailing misuse of the second law of thermodynamics

Many systems tend to become increasingly disordered. The systematic challenge suggests that the second law of thermodynamics neither correlates with the changes of disorder nor contradicts evolution, a natural process characterized by an increase in order. This possible fact results from certain statistical probabilities because many systems are more likely to stay in a disordered state than in an orderly state. However, these statistical probabilities are barely associated with heat transfer. Therefore, the possible fact is not due to entropy or the second law of thermodynamics, a law that only states the direction of heat transfer.