

Entropy, Microstates, and Qualitative Spontaneity

g11_u02_w07

Original fictional model cards only; no chemical activity is requested. State a boundary for each claim.

1. Define entropy as a model quantity.

2. Define microstate.

3. More accessible microstates generally change entropy how?

4. Compare gas and liquid dispersal.

5. Why is “disorder” incomplete?

6. State system boundary importance.

7. Identify a qualitative $\Delta S > 0$ change.

8. Identify a qualitative $\Delta S < 0$ change.

9. Explain surroundings entropy.

10. Distinguish spontaneous from fast.

11. Distinguish spontaneous from high yield.

12. State temperature relevance.

13. Explain qualitative prediction limit.

14. Compare two fictional arrangements with 2 and 8 microstates.

15. Calculate $\ln(8/2)$.

16. Name a missing variable.

17. Explain why microstate count is model-dependent.

18. State one materials example cautiously.

19. Interpret “tendency” language.

20. Write a bounded conclusion.
