

Thermodynamics (Classical) for Biological Systems

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Self Evaluation Questions

The students can use the following questions to check their understanding of the material presented in the course. If something is unclear, they can go back to the relevant lectures and clarify themselves. The questions are arranged, module-wise, including the introductory module.

Module 5 Phase Equilibria

1. What are phases that we are studying in this course?
2. Explain the term 'dynamic equilibrium'.
3. What are the conditions for (a) thermal equilibrium (b) mechanical equilibrium (c) chemical equilibrium (d) thermodynamic equilibrium of a system?
4. What is phase rule? What is the basis for deriving it?
5. What is the Clausius – Clayperon equation? Under what situations can the Clausius – Clayperon equation be applied?
6. What is the governing equation for vapour – liquid equilibrium (VLE)?

7. What is the governing equation for liquid – liquid equilibrium (LLE)?

8. What is the governing equation for solid – liquid equilibrium (SLE)?

9. What is Poynting factor? What is its relevance?

10. How does one estimate activity coefficient from VLE data (VLE data consists of pressure and mole fraction values at equilibrium)?