

❖ Problems

- Q 1. Define the first law of thermodynamics with pictorial description.
- Q 2. Discuss the limitations of the first law of thermodynamics and the need for the second law.
- Q 3. What is entropy? How does it behave in reversible and irreversible reactions?
- Q 4. Comment on the statement “all spontaneous processes are thermodynamically irreversible”.
- Q 5. Derive the relation showing the variation of entropy with temperature and pressure.
- Q 6. What do you mean by “unavailable energy” or the “lost work”?
- Q 7. Discuss the spontaneity of a process in terms of entropy change.
- Q 8. What is Gibbs free energy? What are its significances?
- Q 9. Define the work function and discuss the related spontaneity science.
- Q 10. What are partial molar quantities? Discuss with the special reference of chemical potential.
- Q 11. Derive Gibbs-Duhem equation.

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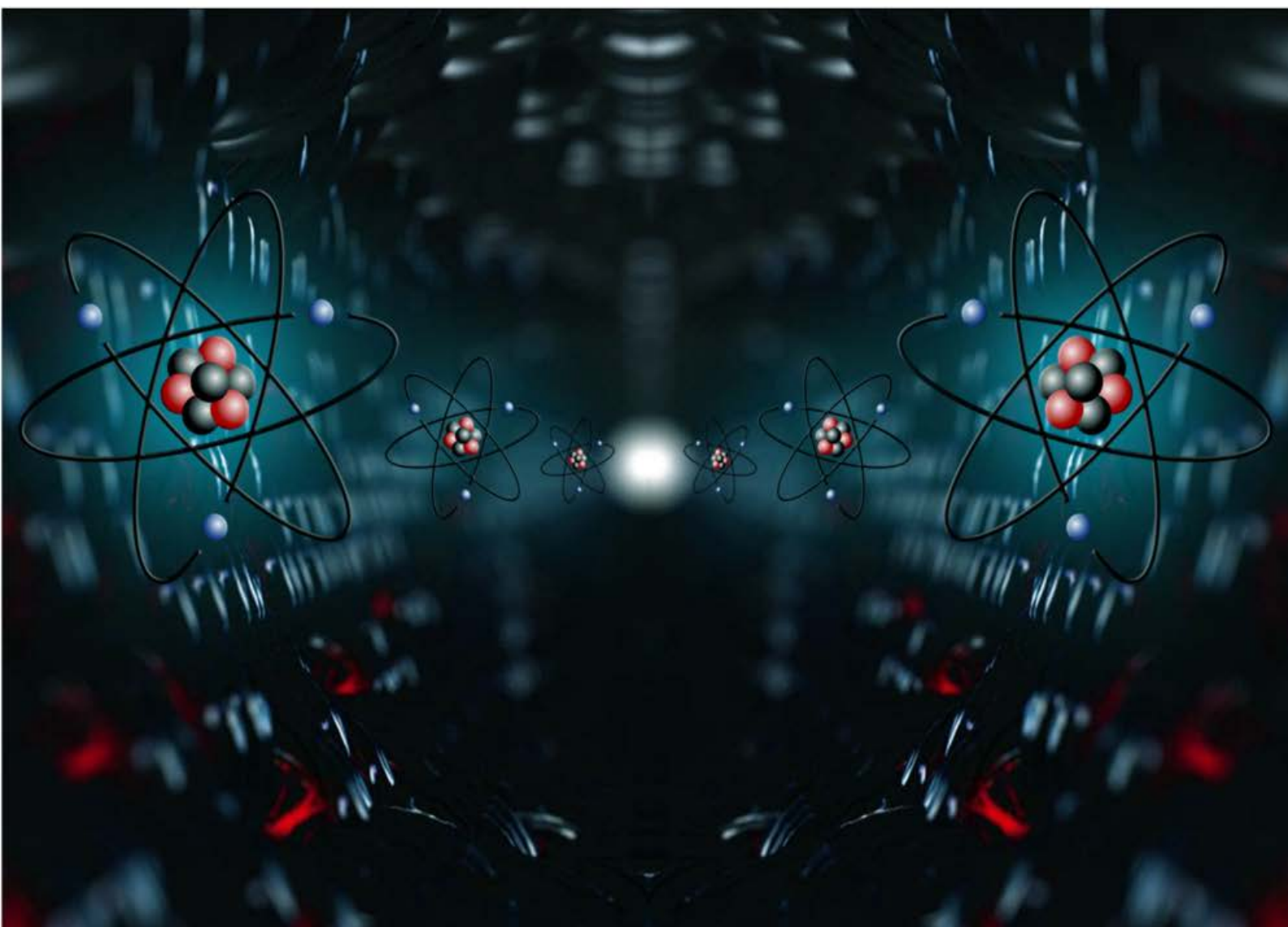
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Volume I

MANDEEP DALAL



First Edition

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