

Chapter 11 – Liquids and Intermolecular Forces (Syllabus)

Chemistry: The Central Science

(pgs. 435-471)

1. Large number of possible AP M.C. test items.
2. 11.1-11.2 (Intermolecular Forces):
 - Intermolecular vs. Intramolecular forces
 - Some important terms: ion-dipole (new), dipole-dipole, dispersion, hydrogen bonding (especially in H₂O)
 - The two generalizations at the end of this section can be very helpful!
 - There have been many AP Exam questions from here.
3. 11.3 (Properties of Liquids): viscosity, surface tension, and capillary action
4. 11.4 (Phase Changes):
 - ✓ Some important terms: Heats of fusion, vaporization and sublimation, and critical temperature and pressure
 - ✓ Be able to draw a heating (or cooling) curve (See Fig. 11.22, pg. 451).
5. 11.5 (Vapor Pressure): Explain it and its relationship to a liquid
6. 11.6 (Phase Diagrams):
 - ❖ There have been many AP Exam questions on this.
 - ❖ Some new terms: phase diagram & triple point
 - ❖ Know Figures 11.27-11.29 (pgs. 456-458).
7. 11.7 (Liquid Crystals): SKIP.
8. Lab: Thin-Layer Chromatography Lab
9. Chapter 11 Exercises (write them down as they are assigned):
 - Visualizing Concepts & Exercises: #'s 2, 3, 9, 17, 21, 27, 35, 39, 45, 51, 55, 59, & 7
 - Additional Exercises: #'s 73, 76, 80, & 83
 - Integrative Exercises: #'s 91 & 96
10. Ch. 11-12 Combined Test: The test will be in about 2 weeks or so.