



Liquids and Solids

Unit 8

Module 4

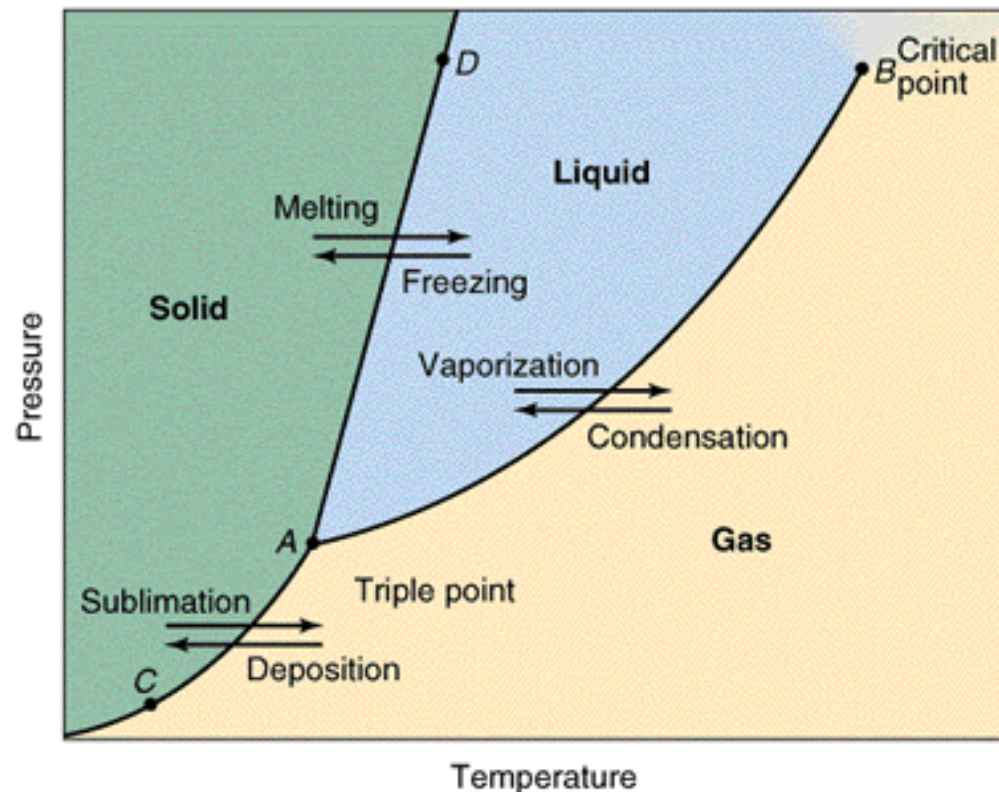


Module Concepts

- Phase Diagrams
- Phase Changes

Phase Diagrams

○ *Phase Diagrams* - A diagram that relates the phase of a substance to the temperature and pressure.





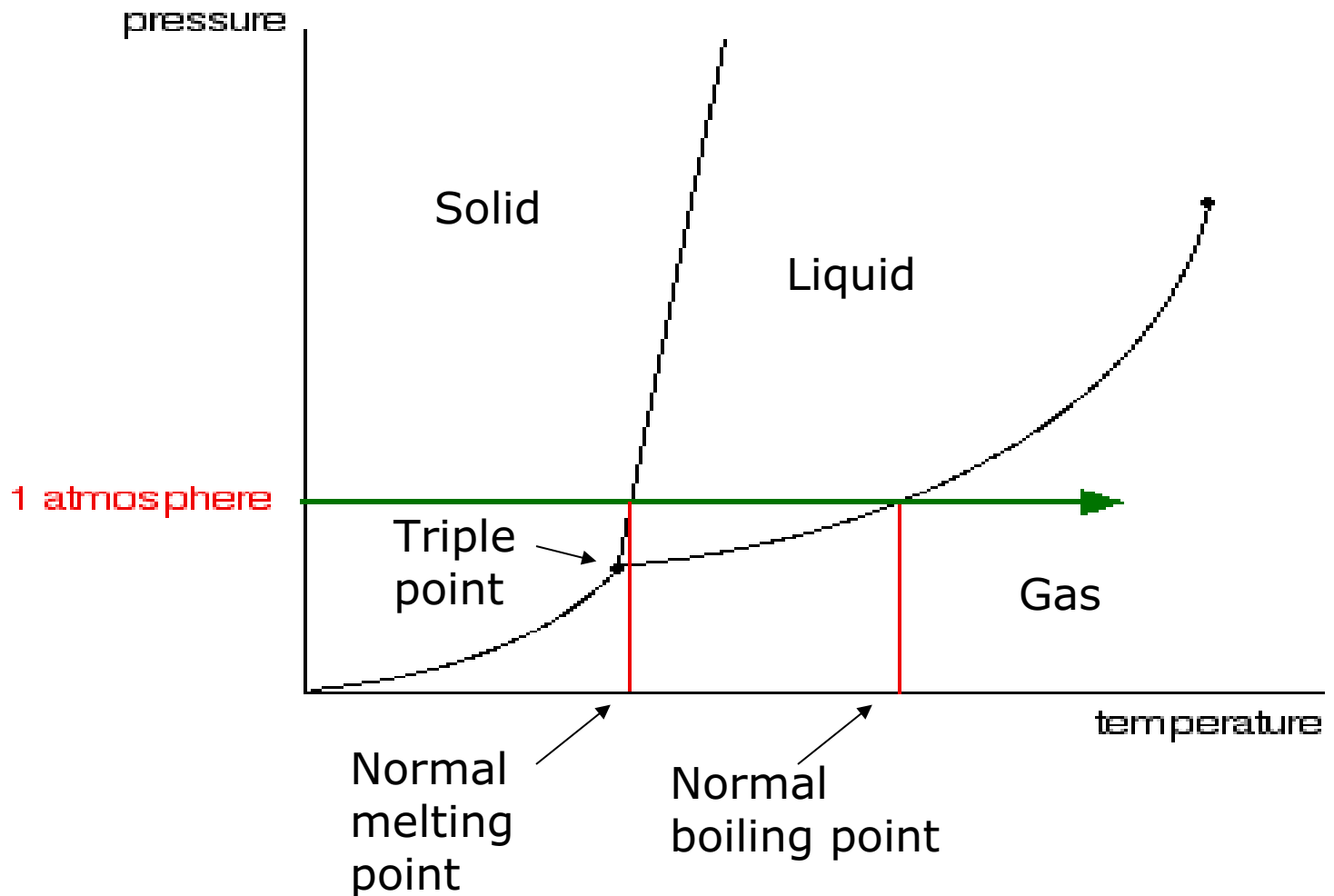
Phase Diagrams

- Any point along the line between the solid and liquid phases represents a melting/freezing point.
- Any point along the line between the liquid and gas phases represents a boiling point.
- Any point along the line between the solid and gas phases represents a sublimation point.

Phase Diagrams

- ***Triple Point:*** the temperature and pressure under which all three states of matter occur at the same time (i.e. exist in equilibrium with one another) for a particular substance.
- ***Normal Melting Point:*** the temperature at which the substance melts at 1.00 atm of pressure.
- ***Normal Boiling Point:*** the temperature at which the substance boils at 1.00 atm of pressure.
- Any point along the line represents a state of equilibrium between the two states of matter separated by the line.

Phase Diagram for Water



Phase Diagram for Carbon Dioxide

