

Constant Volume Bulb



Purpose: To demonstrate the relationship between pressure and temperature of a gas at constant volume

Location: room 136, shelf P4, 2 liter beaker and hot plate on shelf O4, additional beaker on shelf J6 (See 5 x 7 card on side of shelf above practice lab station for locations of ice in building, or request beforehand.)

The gauge measures the pressure in the sealed sphere in pounds per square inch (psi). Atmospheric pressure is about 14.7 psi. Read the pressure when the bulb is immersed in ice water (left) and in hot or boiling water (right). Liquid nitrogen (77 K) may also be used for a more dramatic effect.