The Sublimation of Iodine

(Rarely done)

Purpose:

To show sublimation.

Required Materials:

1 – 500 mL Erlenmeyer flask Elemental Iodine Hot Plate

Watch Glass Ice

Procedure:

Place 2 grams of Iodine in a 500 mL Erlenmeyer flask, and set a watch glass with ice over the mouth of the flask. Place the flask on a hot plate, and turn on the hot plate so the flask is heated slowly. Purple Iodine vapor will be formed, and solid Iodine crystals should form on the bottom of the watch glass.

Reaction:

$$I_2(s) \to I(g) \to I(s)$$

Waste:

After returning to room temperature, Iodine was washed from the flask with Methanol into a labeled waste container and placed in the waste laboratory for shipment.

