

14. Polymers

Subject: Chemistry

Objective: To make a synthetic fiber.

Logistics: Classroom demonstration with class participation.

Materials:

Petri dish

aqueous polyvinyl alcohol (4%)

acetone

6-inch piece of copper wire with loop on end

measuring stick

Procedure:

Step 1: Pour 4 ml of polyvinyl alcohol in Petri dish, add 4 ml of acetone.

Step 2: Demonstrate how to draw a polymer fiber by dipping the copper wire into the solution. Wire ought to be drawn slowly and continuously on a straight line upwards.

Step 3: Draw several fibers and measure longest length.

Step 4: Have teacher draw a fiber and measure it.

Step 5: Have a contest to see who can draw the longest fiber.

Vocabulary: *monomer, polymer, Dr. Carothers*

What they Learn: Chemistry is useful and discoveries in chemistry improve life.