**Recrystallization Exercises:**

1. What is the process of "seeding", as it applies to recrystallization? What purpose does it serve?

2. How can the purity of a recrystallized solid be assessed?

3. Why is it important to:
   a. avoid the inhalation of organic solvents?
   b. know the position and procedure of operation of the nearest fire extinguisher when employing diethyl ether as a recrystallization solvent?
   c. use a fluted filter paper for hot filtration

4. Briefly define the following terms:
   a. melting-point range
   b. mixture melting point
   c. melting point

5. Indicate which of the following statements is true (T) and which false (F) by putting a check mark in the appropriate space

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   |   |   | a. An impurity raises the melting point of an organic compound.
   |   |   | b. The sample should not be packed tightly into a capillary melting-point tube.
6. What is the preferred technique for accurately determining the melting point of an unknown compound in a minimum length of time?

7. How does measuring a mixture melting point help in determining the possible identity of two solid samples?

8. What is the approximate rate at which the temperature in the Mel-temp should be increasing at the time the sample undergoes melting?

9. Briefly describe the technique for packing a capillary melting point tube.