

Name _____ Partner Name _____

TA Name _____ Section Letter _____ Day _____ Time _____

Experiment 1 – Recrystallization of Acetanilide

Use as reference for notebook preparation – every student submits on Canvas individually after lab

Pre-Lab Requirements

1. **Dress for lab** – see safety rules – arrive a few minutes early
2. **Lab Notebook:** copy templates below into designated notebook
 - **Purpose, scheme, and reagent table**
 - **Procedure Diagrams** – must be complete before you can start the lab

A. Purpose and recrystallization scheme, see lab PDF**B. Reagent Table**

Chemical Name	Amount Fill in during lab	Molecular Mass	mmoles Fill in during lab	Boiling or melting point	Density	Hazards
Acetanilide						
Water						

C. Procedure – hand-written instructions & diagrams based on lab PDF, Slugs@home, and class notes

- **Include all labeled equipment, chemical names with amounts, and clean-up / safety notes**
- Indicate every **transfer** of chemicals from one container to another
- *Use as many pages as needed* - at least 3 pages is typical

Part 1. Dissolve Ac in hot solvent and add charcoal

- Weigh Ac, flask contents, heat, flask after charcoal addition

Part 2. Hot Filtration Apparatus

- Flask & filter contents before, during, and after filtration

Part 3. Cooling and Cold Filtration

- Flask & filter contents before, during, and after filtration

Part 4. Melting Point Analysis

- Sample identities & preparation, observations through viewing window

D is for Data

Record additional notes and observations within the procedure diagrams, including all potential sources of Ac loss as you carry out the procedure (ex. solid left behind in flask during hot filtration).

Mass of crude Ac _____ g

Initial volume of water _____ mL

Additional Water Added _____ mL

Approx. total volume of water = (initial) + (additional) = _____ mL

Re-calculate theoretical mass recovery and th. % recovery using your crude mass and total volume of water (same process as the pre-lab).

Theoretical Mass Recovery _____ g Theoretical Percent Recovery _____%

Mass of filter paper: _____ g

Mass of filter paper + recrystallized, air-dried acetanilide: _____ g

Actual mass recovery of recrystallized **Acetanilide**: _____ g**MelTemp Analysis**

Melting Range, record with one decimal place

Sweat (beginning) _____ °C

Melt (end) _____ °C