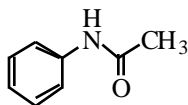


3/ Recrystallization of Acetanilide



acetanilide

procedure

- 1 Place about 5 mL of water and a boiling stone in a small Erlenmeyer flask and heat to boiling on a hot plate.

- 2 In a second Erlenmeyer flask, place about 100 mg of acetanilide and a boiling stone. When the water in the other flask has begun to boil, use a Pasteur pipet and begin adding hot water to the flask containing the acetanilide. *As the water is being added, it is important to keep the acetanilide/water mixture hot.* As hot water is being added, swirl the flask to aid in dissolving the solid. If an oil forms on the surface of the water, continue slowly adding water until the film disappears. If an oil reappears, add a little more water and maintain heating.

- 3 Since acetanilide is a white solid, any color in the recrystallizing solution must be removed. To do this, add a half of a spatula tip of decolorizing charcoal to the warm - *but not boiling* - solution. Then, reheat to boiling for a few minutes.

- 4 To remove the charcoal, fill the Hirsch funnel with Celite and place a piece of Kimwipe on top of the Celite. Place the Hirsch funnel atop a filter flask which has been attached to an aspirator. With the aspirator turned on, quickly pour the hot solution onto the Kimwipe atop the Celite. The colorless solution will be pulled into the filter flask.

- 5 Acetanilide should begin to form a white solid in the filter flask. To aid in crystallization, place the flask in an ice bath. If no crystals form after several minutes, transfer the liquid to a clean flask and reheat to boiling for a few minutes. Then, cool this flask.

- 6 Product is recovered by collecting the solid product on a Hirsch funnel. Allow the solid to fully dry by storing it in your lab drawer until the next lab period. Then, record the mass of the product and obtain its melting point.

health & safety notes

Acetanilide is a toxic and an irritant. Avoid contact with your skin.