

Answer on Question #42796, Chemistry, Other

Question:

You recently conducted an experiment in your collage laboratory im which acetylglycine was prepared by reaction of glycine with acetic anhydride. Write a report.

Answer:

EXPERIMENT OUTLINE

1. Place 0.10 g glycine in a 5 mL conical vial.
2. Add 0.4 mL water and warm slightly to dissolve.
3. Add 0.3 mL acetic anhydride and stir mixture for about 5 min.
4. Cool mixture in ice bath for about 10 min.
5. Collect precipitate by suction filtration and wash with a few mL of water.
6. Spread crystals over a piece of filter paper or watch glass and air dry for 10 min.
7. Record mass and melting point of product.

OBSERVATIONS

- a) When the glycine/water mixture was warmed, glycine dissolved after about 20 sec.
- b) When the reaction mixture was cooled in ice, white, needle-shaped crystals formed.
- c) After filtration and drying of the product, 0.14 g. of solid was obtained.
- d) The mp of the crystals was recorded as 205-207 °C.
- e) The solid product was possibly still slightly wet.

FLOW CHART OF OPERATIONS



