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## Preparation of Acetic Acid

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# Lab 42

### PURPOSE

To prepare acetic acid in the laboratory by anhydrous sodium acetate and concentrated sulfuric acid solution.

### EQUIPMENT

distillation flask  
filtration flask  
ring stand

thermometer  
stopper  
clamp

water-cooled condenser  
tap funnel

### MATERIALS

sodium acetate ( $\text{CH}_3\text{COONa}$ )

conc.  $\text{H}_2\text{SO}_4$

table salt

ice

### PROCEDURE

1. Set up the apparatus as shown in the Figure.
2. Take 20g of sodium acetate and dry it by heating on a porcelain.
3. Put the dry sodium acetate into the distillation flask.
4. Place 10ml of conc. sulfuric acid to the tap funnel.
5. Allow the conc. sulfuric acid from the tap funnel to fall drop-wise while the distillation flask is heated.
6. Use  $112\text{-}118^\circ\text{C}$  temperature to heat.
7. Take the product in the filtration flask which is placed in ice-salt bath.
8. Can you take the smell of vinegar?

