Application of Distillation:

Fischer Esterification and Simple Distillation

$$CH_{3}COOH + C_{2}H_{5}OH \xrightarrow{H_{2}SO_{4}} CH_{3}COOC_{2}H_{5} + H_{2}O$$

30 ml of acetic acid and 40 ml (95%) of ethanol are mixed. Slowly add 5 ml of sulfuric acid over it and treat it under reflux for 30 minutes. After 30 minutes, the reflux cooler is turned to the distillation cooler (condenser) and the ethylacetate is distilled off.

Questions

- 1. What is azeotropic mixture and how to make their distillations?
- 2. What is molecular distillation ?
- 3. What are the points to pay attention during simple distillation?