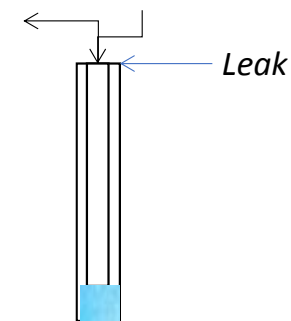
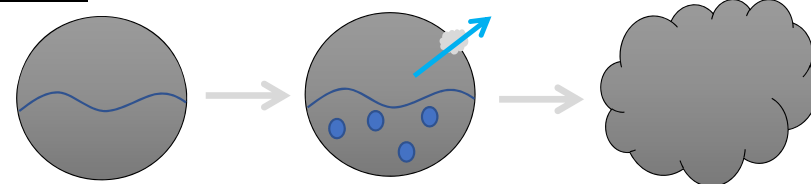


Safety Slide – Schlenk Line Cold Trap Scripps Research

- Very important to use cold trap to protect vacuum from damage & flammable solvents
- Use CO₂ or LN₂
- Extreme care should be used if LN₂ is in Cold Trap
- Oxygen BP (-183°C); Nitrogen BP (-195.8°C)
- Make sure system is not open to atmosphere when LN₂ is in trap
- **If you see a blue color in the trap:** *close the hood, walk away;* allow the trap to warm under vacuum until all LN₂ is gone (warn your labmates)
- When work is completed:
 - 1) Remove the cooling dewar from the trap (best practice to close hood for 30 seconds after dewar is removed and before turning off vacuum to allow any LO₂ to volatilize)
 - 2) Turn off vacuum
 - 3) Promptly Open Schlenk Line to vent the system



B.L.E.V.E.



UCSB Incident

- Attempted distillation of 4-methylanisole (BP: 174°C) @ RT with LN₂ trap
- Nothing happened after some time, so the researcher took down the trap & rinsed it with water to check for content
- Cloud formed in flask, flask exploded imbedding in his face, neck, hands, chest
- Lost significant blood, needed 30 stitches to face/neck