Hilla University
Criminal Evidence Department
Organic Chemistry
First stage / First course

Lab. No. 1



Lecture

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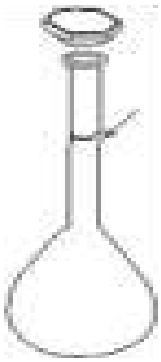
COMMON LABORATORY APPARATUS

1-Beakers: are useful as a reaction container or to hold liquid or solid samples. They are also used to catch liquids from titrations used as distillation receiving container.



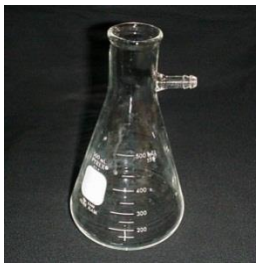
2-Volumetric Flasks: are used to measure precise volume of liquid or to make precise dilutions.



3- Erlenmeyer Flasks (conical flask): are useful to contain reactions or to hold liquid samples. They are also useful to catch filtrates.



4-Vacuume Flask (side-arm flask and filtering flask): a type of glass flask used in a laboratory similar to an Erlenmeyer flask, but with short arm coming of it used for connect the flask to a vacuum source.



5- Round bottom flask: Used for distillation or heating of liquid, allows uniform heating.



6-Round-bottomed flask quick fit one, two and three nick: used for the chemical reactions with different size the two and three nick used for inserting thermometer or the condenser reaction or addition of materials.



7-Thermometer: used for measuring temperature.



8-Droppers: are for addition of liquids drop by drop.



9-Pipets: are used to dispense small quantities of liquids.



10- Condenser: used for condensing volatile liquid during distillation



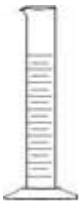
11-Funnel: Used for liquid transfer. Also for simple filtration.



12- Buchner funnel: Used for vacuum filtration using filter paper.



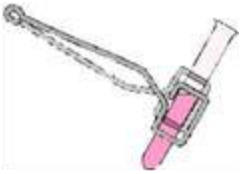
13-Graduated Cylinders: Used for measuring liquid with better accuracy than beaker.



14- Test Tubes: are for holding small samples or for containing.



15-Test tube holders: are for holding test tubes when tubes should not be touched.



16-Tongs: are similar in function to forceps but are useful for larger items.



17-Wash bottle: is used for dispensing small quantities of distilled water.



18-Watch glasses: are for holding small samples or for covering beakers or evaporation dishes.



19-Stand: Used commonly as base for holding distillation system and burette along with clamp and boss head.



20-Clamp: Used for holding glassware along with stand and boss head



21-Ring stand with Rings: are for holding pieces of glassware in place.



22-Filter paper: Used for filtration, available with different pore size.



23-Mortar and Pestle: used for graining materials which have large particle size to small.



24-Crucible: Used for burn sample at high temperature.



25-Spatula: used for weighting of the chemicals and to take and handle small quantities of solid chemicals.

