



LAB EQUIPMENT

1st Grade

Lecture 2

Asst. Lect. Zahraa Hazim Hamid

Department of Medical Biotechnology

Chemistry Lab Equipment name and uses



Volumetric Flask



A volumetric flask is a key lab tool made of glass, calibrated to hold a precise volume of liquid at a specific temperature. It comes in various sizes and is mainly used in chemistry labs for preparing standard solutions.

Beakers



Beakers are another cylindrical utensil made up of glass, with a flat bottom and an upper opening, which may or may not have a spout. They are of varying sizes and are used to hold, heat, or mix substances with the proper measure. Beakers come in every size from tiny 20 ml cups to liter-sized buckets, and everything in between – but 250-500 ml beakers are most common.

Test tubes



They are usually cylindrical pipes made up of glass, with a circular opening on one side and a rounded bottom on the other side. They come in different sizes . Test tubes are one of the most important apparatus as they are functional from storing to mixing reagents in any chemical or biological reactions.

Bunsen burner



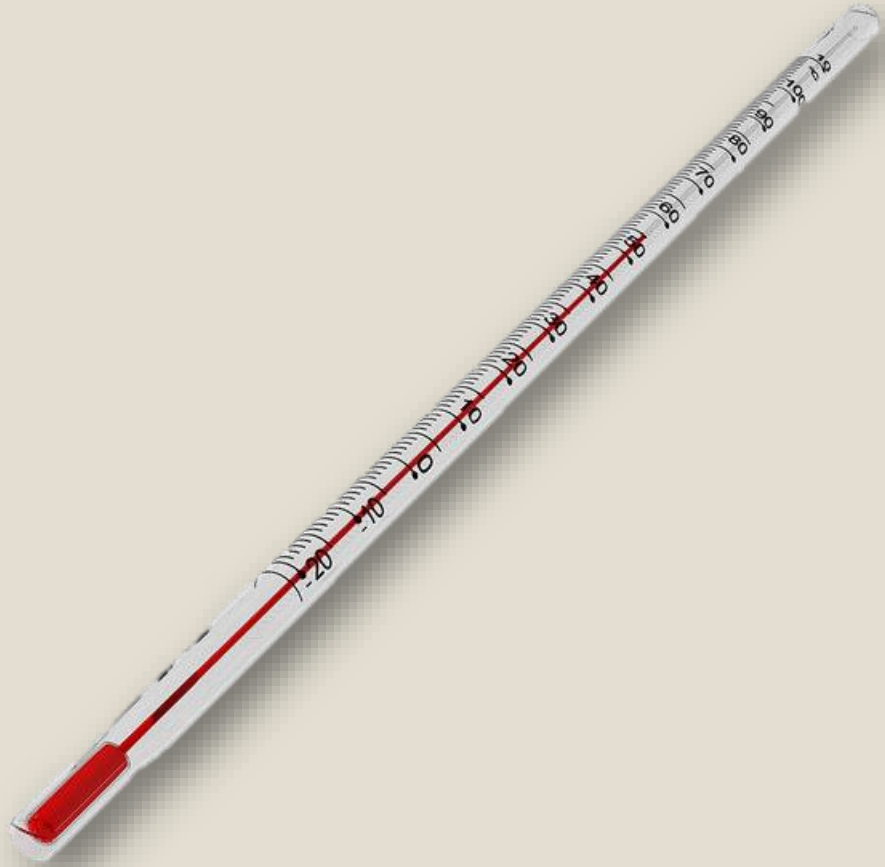
This apparatus produces a single open flame and it is used for heating and sterilization purposes in the various experiments conducted in labs. The Bunsen burner produces a single clean, steady, sootless flame of high temperature, and that's why it is so well-favored in laboratories. It is relatively safe to use when used with caution.

Dropper



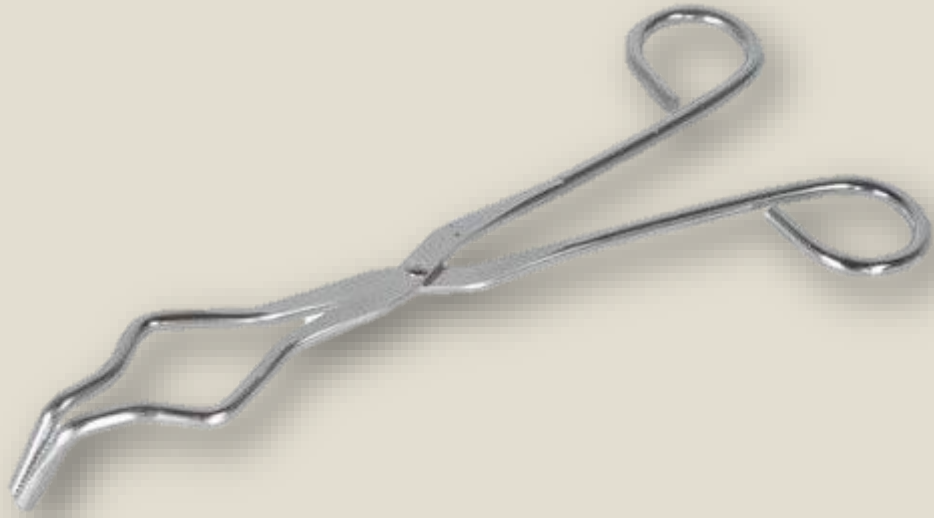
small tube with a rubber container at one end which is pressed and released to draw a liquid into the tube, and which can then be lightly pressed to release very small amounts of the liquid.

Thermometer



laboratory thermometer is used to measure the boiling point and freezing point during science experiments. It is also used to measure the temperature of substances

Tongs



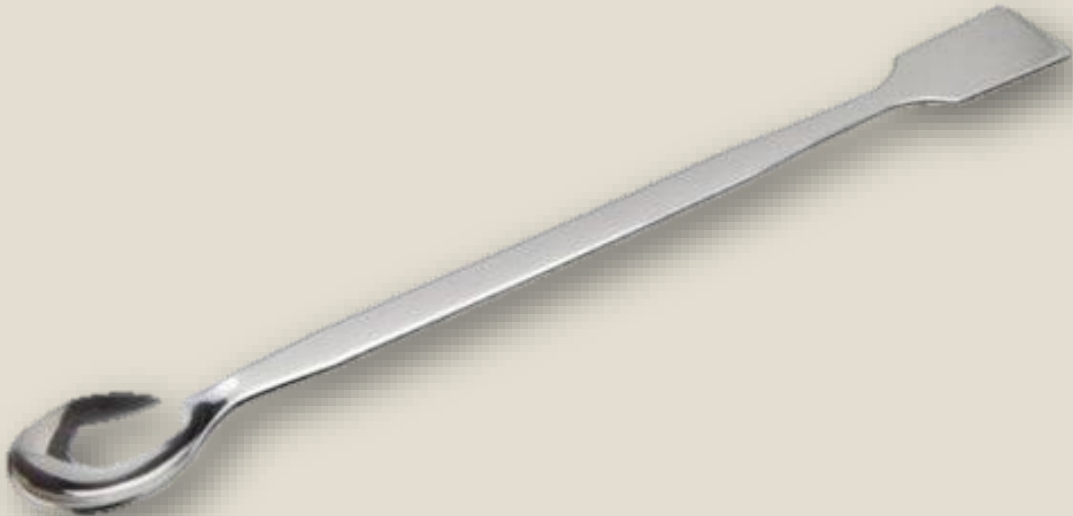
It is a laboratory instrument used to handle and move small, hot objects, such as crucibles, evaporating strips, or small flasks. It consists of two metal heads with tapered or V-shaped jaws that can be released to hold the body securely.

Wash bottles



used to rinse various pieces of laboratory glassware, such as test tubes and round bottom flasks

Spatula



are commonly used in chemistry and biology laboratories for measuring and transferring small amounts of materials, such as reagents, samples. They are also used for mixing, stirring, and spreading materials on surfaces.

Burette



is a graduated glass tube with a tap at one end, for delivering known volumes of a liquid, especially in titrations.

Watch glass



is a circular concave piece of glass used in chemistry as a surface to evaporate a liquid, to hold solids while being weighed, for heating a small amount of substance, and as a cover for a beaker.

Funnels



used in chemistry and other scientific experiments for funneling liquids or powders into containers with slim openings.

Crucible



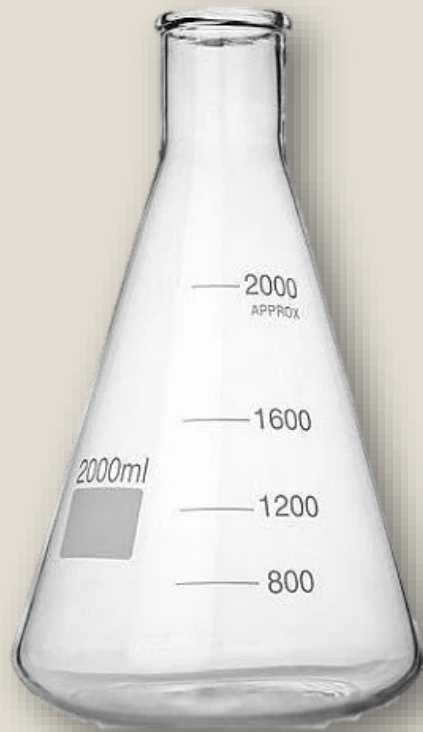
crucible is a cup-shaped piece of laboratory equipment used to contain chemical compounds when heating them to very high temperatures. The receptacle is usually made of porcelain or an inert metal.

analytical balance



Analytical balances are an extremely accurate laboratory balance created to precisely measure the mass of an object.

Erlenmeyer flask



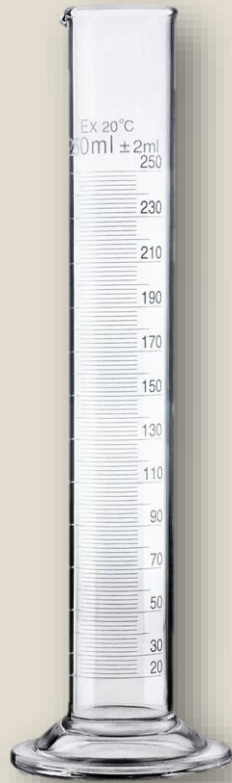
tool usually made of glass consists of a flat bottom, a tapered neck, a conical body, and an opening that can be closed by a stopper. It was named after its inventor, Emil Erlenmeyer. It is used to collect, store, and approximate measurement of liquid samples

Mortar and pestle



used to grind up solid chemicals into fine powder and crush solids into smaller pieces

Graduated cylinder



is a common piece of laboratory equipment used to measure the volume of a liquid.

Florence flask



is used as a container to hold liquids. A Florence flask has a round body, a long neck, and often a flat bottom. It is designed for uniform heating, boiling, distillation and ease of swirling; it is produced in a number of different glass thicknesses to stand different types of use.

Test tube holder



It is used for holding a test tube in place when the tube is hot or should not be touched

Rubber stoppers



used to closure bottles,
tubes and many other
containers.

Test tube rack



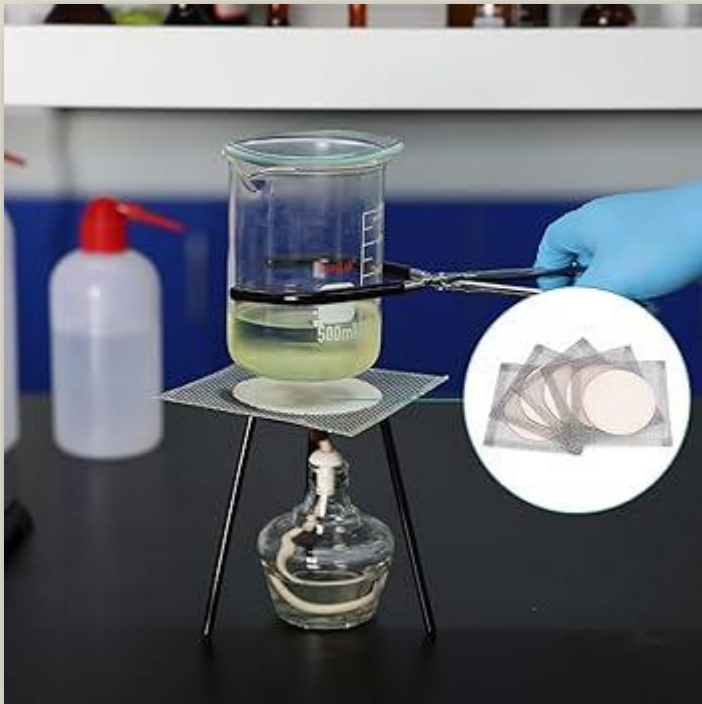
used to hold upright multiple test tubes at the same time.

Test tube brush



used for cleaning test tubes and narrow mouth laboratory glassware, such as graduated cylinders

Wire gauze



Wire gauze is a sheet of thin metal that has net-like patterns or a wire mesh with a ceramic center. The gauze is placed on the tripod stand between the Bunsen burner and the glassware to support the beakers, flasks, or other glassware during heating