DENSITY MEASUREMENT EXPERIMENT

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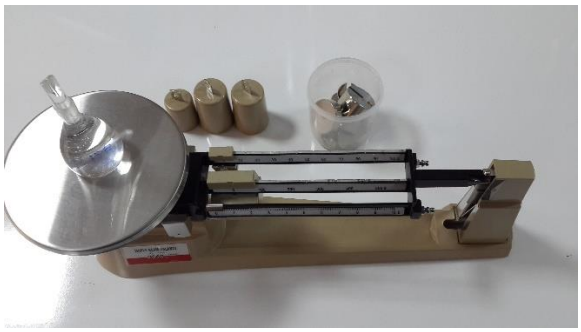
(Specific gravity bottle, triple beam balance)

The purpose of the experiment: Measuring the density of different liquids



Experimental Procedure:

- First of all, the scales must be adjusted/calibrated. If the empty scales does not show zero, the left-hand set screw can be used.
- In this setup, up to 610 grams of mass can be weighed without using weights. By adding additional weights to the right side of the device, it can be increased to a total capacity of 2610 gr.
- You need to know the volume of the tube you will fill the liquid with and find its empty weight (approximately 25 g).
    - The supplied tube has a volume of 50,506 ml.
    - Fill the tube completely with liquid.
    - For high precision, work with 20 Cº liquid.
    - Before closing the plug, gently shake it a few times to release the air inside.
    - The water must rise to the top in the capillary pipe inside the plug. You can do this with the help of Syringe etc.
- After you dry the outside of the tube filled with liquid, weigh it.
- Calculate the density in kg/m^3 using the equation below.

$$\rho = \frac{m_2 - m_1}{V}$$

- Repeat this experiment using liquids such as water, milk, oil, salt water.

NOTE: By mounting the necessary equipment with scale, the weight of the objects in the water/liquid, the buoyancy of the water and the relative densities can be calculated.