Lab Report for 4/10/23:

* Today’s task of determining whether PPP can act as a chelating agent for Cu2+ ions has been an uncertain success.
  + This is due to the instantaneous color change of the solutions upon the addition of CuSO4.
  + However, we can only accurately determine the success rate using spectrophotometric data.

Morning Session: (9:20-10:30)

* Around 0.1g of PPP (pomegranate peel powder) was added to 5 different flasks.
* Then, 30mL of each solvent was added to the flasks using a measuring cylinder and funnel.
* Finally, the flasks were placed on the rotary shaker at 10:50 for 3 hours.

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| **Solvent** | **Mass of PPP (grams)** |
| Water | 0.106 |
| Ethanol | 0.104 |
| Acetone | 0.108 |
| Methanol | 0.100 |
| Chloroform | 0.101 |

Afternoon Session 1: (12:20-12:50)

* A 100mL 0.05 moldm-3 CuSO4.xH2O standard was made using 1.246g of powder.
  + Exact calculated amount for preparing the standard was 1.2484g.
* A casual observation of the flasks in the shaker at 12:50 revealed that the water solvent had turned a pale yellow, chloroform became turbid, and the rest were transparent.

Afternoon Session 2: (1:50-2:20)

* The solutions were removed from the rotary shaker at 1:50 and they were filtered using filter paper.
* The colors of the solutions were the same as noted previously (chloroform became much less turbid however).
* Using a pipette, 10mL from the standard was added to each of the solutions.
* The color changes mentioned below were observed instantaneously as the standard was added to each flask.
* A photo of the solutions was taken by Banu ma’am/Venkatesh sir’s phone.
* After the addition of the standard, the flasks were placed on the rotary shaker at 2:20 (to be picked up at 3:20).

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| **Solvent** | **Final Color/Observations** |
| Water | Yellow-green & turbid |
| Ethanol | Dark brown |
| Acetone | Brown & turbid |
| Methanol | Dark brown (darker than ethanol) |
| Chloroform | Pale green (no turbidity) |