Lab Plan for 12/3/24:

* Lab work details:
  + Preparing pH 1, 3, and 5 buffers
  + Complexing Cu2+ and PPP in the varying pH-controlled environments **(time-permitting)**

**Buffer Preparation:**

* 0.1M sodium dihydrogen phosphate standard will be prepared using 1.2g when required.
* 0.1M phosphoric acid standard will be prepared using 0.98g when required.
* 0.1M acetic acid standard will be sourced from Fawaz.
* 0.1M sodium acetate standard will be prepared using 1.36g when required.
* Buffer solution will be obtained by adding both reagents to a beaker in the required ratio as shown in the table below.
* The normal complexation procedure will be followed.
  + Water solvent, 0.05g PPP, 20:10, 0.05M Cu2+
  + After preparation of the ligand solution, it will be added to the buffer solution before the copper ion standard is added.

**Reagents Ratio Table:**

* The reagents mentioned above will be mixed in the following ratios:

|  |  |  |
| --- | --- | --- |
| pH/cm3 | **Phosphoric acid** | **Sodium dihydrogen phosphate** |
| **1** | 93.39 | 6.61 |
| **3** | 12.38 | 87.62 |
| **5** | 36 (acetic acid) | 64 (sodium acetate) |