Objectives of Research work:

1. The ppt of Copper iodate, Copper Iodide and Copper Sulphide are insoluble in water. The aim of project is to convert the ppt of these compounds into crystalline form.

2. The crystallization is possible only when the reaction taking place as mention above can be slowed down that is to control the rate of the reaction of reactants. The rate of reaction can be controlled by using gel media.

3. The gel technique will be utilized in various trials to control the rate of reaction taking place between two reactants.

4. For this, various types of gels will be used which will be suitable for each of the crystals.

5. Characterization describes those features of the composition and structure of a material that is significant for particular preparation study of properties or uses and suffices for reproduction of materials.

6. The grown crystal will be characterized by the following number of techniques like XRD, TGA, DSC, Chemical analysis, EDAX and FTIR, UV-VIS Spectro photometry etc.

7. The grown crystal will be characterized by the following number of techniques,

   X-Ray Diffraction Technique : This technique used to determined different lattice parameters in crystal growth. The h,k,l values, d-spacing values can be calculated.

8. IR Technique: The FT-IR technique use to determine bending and stretching bonds and contents present in the crystal.

9. Thermal Stability: The thermal behaviour of the crystal, thermal stability, liberation of water molecules can be obtained.

10. Chemical Analysis: This method used to calculate contents are present in crystal.
UV Vis spectrohotometry: This method is used to find Band gap so that whether grown crystal is conductor, insulator or semiconductor can be determined.