

Chem 531

Prelab 2 (Experiment 1 in Girolami)

1. What is superconductivity? For metallic solids, why does conductivity decrease with temperature?
2. Describe the formation of Cooper pairs, and explain their contribution to superconductivity.
3. Why are high temperatures required for the formation of your solid? Why is flowing oxygen required?
4. Write out balanced reactions for:
  - a.) The formation of your product
  - b.) The reduction of iodine by thiosulfate.
5. How will you calculate  $x$  from iodometric titration?