

Metallurgy Lab: Crystal Formation

Name: _____

Safety: Wear safety glasses.

Handle powdered alum with caution. Harmful if swallowed.

Date: _____

Materials: Alum (powdered), String, Glasses of H₂O

Procedure:

- 1) Stir alum into small glass of water until saturated.
- 2) Moisten the end of a piece of string.
- 3) Dip string into powdered alum until a small ball of alum sticks to the end.
- 4) Hang string with ball of alum into the saturated solution. This is the seed for crystal formation.
- 5) Observe the string in one hour. Remove string from solution if necessary.
- 6) Repeat steps 1-4. Observe the crystal a few days later.
- 7) Repeat steps 1-4. Observe the crystal a week later.
- 8) Repeat steps 1-4. Observe the crystal a couple of weeks later

Alum crystal formation report:

Time Lapsed	Surface condition	Shape of crystal

Compare the size of crystal formation across time. Does the formation appear to be proportional to the time the crystal remains in the solution? Has maximum growth been achieved? _____
