

Metallurgy Lab: Crystal Formation-Sugar

Name: _____

Safety: Wear safety glasses.

Date: _____

Materials: Sugar, String, Glasses of H₂O

Procedure:

- 1) Stir sugar into small glass of water until saturated.
- 2) Moisten the end of a piece of string.
- 3) Dip string into powdered sugar until a small ball of alum sticks to the end.
- 4) Hang string with ball of sugar into the saturated solution. This is the seed for crystal formation.
- 5) Observe the string in one hour. Remove string from solution is 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 late

Alum crystal formation report:

| Time Lapsed | Surface condition | Shape of crystal |
|-------------|-------------------|------------------|
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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? _____
