

Microscale Silicate Garden

Data Table

Chemical Name	Chemical Formula	Forms a Crystal with Sodium Silicate Solution?	Observations (Color of Crystal, etc.)
Aluminum chloride			
Calcium carbonate			
Calcium chloride			
Cobalt chloride			
Copper(II) carbonate			
Copper(II) chloride			
Copper(II) sulfate			
Iron(III) chloride			
Potassium sulfate			
Sodium carbonate			
Sodium chloride			

Post-Lab Questions

1. What chemicals react best with the sodium silicate solution?
2. What salts never made new crystal columns when mixed with sodium silicate solution?
3. Formulate an hypothesis on why certain chemicals form crystal columns and others don't. (*Hint*: It has to do with solubility.)
4. What causes the crystals to grow upwards, and defy gravity?