Project 3 – Equilibrium Ternary Compositional Phase Diagrams
(Due 18th of April)

Project:
I am a student in your equilibrium ternary phase diagram class and know absolutely nothing of or about equilibrium ternary phase diagrams. However, I do know about binary equilibrium phase diagrams. In order to teach me about equilibrium ternary phase diagrams and how to use them, your assignment is the following:

Describe ternary compositional phase diagrams. Use a specific ternary materials system for your description. (be sure to reference the paper) Describe the following:
   a. Differences from binary phase diagram
   b. Basic overview of ternary compositional phase diagrams
   c. Describe 2 phase and 3 phase equilibrium aspects (regions, tie lines, etc.)
   d. Show how one can use the Lever Rule in a ternary phase diagram (both 2 phase and 3 phase regions)
   e. Provide applications for the ternary system you chose.

Related Information
- Work in teams of 2 or 3
- Over the weekend (no later than the 10th of April), send me the materials system you will use to describe the ternary phase diagram. I want to make sure there is not duplication between teams.
- You will present this in ~ one week – on 18th of April - in a power point presentation
- Each presentation will be 10 minutes long
- Put the presentation on the W: drive BEFORE class
- Provide a hard copy and an electronic copy to me (email electronic copy with your last names, class, date, and project as file name before class)
- Turn in Project Self Evaluation form
- Cite all references used. You will need to go to library and look up material. Limit your use of online material in your presentation unless it is a refereed paper or it is referenced and you run it by me. However, you can use the online material to familiarize yourself with the subject.
- Do not use me as a resource as I know nothing about equilibrium ternary compositional phase diagrams.