Characterization of Materials   Nov 2024
HW 10   Dr. Garofalini

See Website for due date

 You will each be required to present an exactly 6 minute powerpoint presentation regarding a scientific paper that uses at least 2 different characterization techniques discussed in class. The talk will present a brief review of the paper, with emphasis on 2 techniques used in the research. Any 2 techniques can be covered, although a specific combination of XRD and SEM is **NOT** allowed (although either could be combined with some other technique (eg. XRD and EXAFS, etc.).

 You must be <u>very</u> concise and well rehearsed in your powerpoint presentation. Use your own computer or the podium set-up (make sure you know how to use it).

You need to cover:
 (1) the paper title, authors, journal year etc.,
 (2) the reason the research was performed (see their Intro.),
 (3) the techniques used (with emphasis on the techniques you will discuss),
 (4) why each technique was used here (what one expects to get from using the techniques they've chosen in the selected paper),
 (5) their results and conclusions.

Conclusions could be guided by the Abstract and Conclusion sections, but you need to read the Intro to understand why they are doing the work and the rest of the paper to understand what they did. If warranted, discuss how their techniques were an advancement from the basics we covered in class.

Possible journals that you can use include:
J Am Ceram Soc
J Materials Research
J Phys. Chem. (A or B)
J Materials Chemistry A
J Vacuum Science and Technology
Surface Science
Science
Nature Materials