SCI 1410: materials science & solid state chemis

## **HOMEWORK 4.**



## PROJECT WORK

We are about a week away from the Project 1 presentations. Yes, indeed! How are things going? I'm thinking that at this point in the project, you should have at least a few sets of data that illustrate what your materials are, and how they behave. I'm also thinking that your team may be starting to connect the dots, linking structure-bonding-composition information to the properties, performance, and impacts of your materials. If you haven't yet generated figures, graphics, and text that you could include in your poster, it is time to work toward this goal. This week may also be a good time to answer additional questions through library or web research. Remember to check your results and validate your analyses using high quality sources (not random web sites).

## READINGS

This week's reading assignment is simple: find and digest the information you need to effectively analyze and communicate your project results. Think about the questions you're trying to answer, and find some technical source material to further your understanding and bolster your analyses. Do you need more quantitative data on environmental impacts? Do you need to check the validity of your property measurements by comparing values to published technical data? Do you need to find more detailed discussions of how your polymer is synthesized, or perhaps how your material's response to mechanical loading is influenced by structure and bonding?

Don't forget about all of the wonderful electronic resources available through our library (e.g., the Knovel collection of polymer books). As always, talk to Jon or Matt if you're having trouble finding good sources to support your project work.

## STOLK'S TAKE ON THE MATSCI READINGS GOAT CHEESE Since there were no required materials science textbook readings this week, please allow me to provide my take on another important topic: goat cheese. Now, you may be expecting me to go off on a detailed narrative of all the great French chèvre. This is certainly understandable: I admit that there are some killer chèvres out there. But I'm feeling patriotic, so I'm going to take this opportunity to describe a couple goat cheeses made right here in the USA.

My absolute favorite goat cheese is Humboldt Fog. This stuff is amazing. It's a ripened (as opposed to fresh or aged) goat cheese that's made in northern California by Cypress Grove Chevre (check out www.cypressgrovechevre.com). The first thing you notice when your ACS Certified Cheese Professional cuts open a wheel of Humboldt Fog is the unique look of the cheese. It has a bone white, chalky paste (that's the crumbly stuff in the middle), and a smooth and gooey ripened area near the rind, and a dramatic black stripe

through the middle of each delectable slice of the cheese. The black layer, which is vegetable ash, continues around the outer edge of the cheese. From the outside surface, the cheese appears bluish gray due to a white layer of mold that grows on the black vegetable ash. This uniquelooking rind reminded the cheesemakers of the morning fog in northern California, hence the Humboldt Fog name. The ash and rind are edible, of course, and they tend to add a bit of complexity to the taste of the cheese. Speaking of taste, Humboldt Fog has the freshness of unaged goat cheeses and the complexity of aged varieties. It's chalky but smooth, rich and luscious; and it has a tangy flavor quite unlike other goat cheeses I've tried.



My wife and I serve Humboldt with just about everything. It's great as part of a cheese plate (on the mild end of the spectrum); it's terrific on both sweet and earthy salads; and it's amazing on burgers. For brunch this morning, I enjoyed a little Humboldt Fog and green olives on rosemary crackers. For lunch, I had a mixed field greens salad with fresh strawberries, homemade vinaigrette, and some crumbled Humboldt Fog. And for dinner, it'll be a Humboldt burger (aka Stolk burger): grilled whole-wheat bun, Dijon mustard, grilled red onions, and melted Humboldt fog cheese on the meat. I served my father-in-law one of these last summer, and he said it might be the best burger he's ever had. No kidding! If you're interested in a wine pairing, my favorite drink with Humboldt Fog is Nino Franco Rustico Prosecco.

Looking for something a little more unexpected? I recommend Cypress Grove's Purple Haze Chevre. It's a fresh goat cheese with lavender and fennel. So different, and oh so delicious. And you can't go wrong with the Truffle Tremor, a nearly perfect combination of ripened goat cheese *and* black truffle... ridiculous.