SP.287 / 5.S15 / ESG.SP287 Kitchen Chemistry
Spring 2009

Kitchen Chemistry Homework #5

Homework Questions:

Scone Specific Questions:

1. How does vinegar curdle milk?
2. What is the chemical process that happens when vinegar is added to milk?
3. What happens to the sugar on top of the scone when you cook the scone?
4. Why don't you want to knead the scone dough for a long period of time?
5. Could you make this scone with baking powder instead of baking soda? If you wanted to use baking powder, what ingredient is not necessary?Why?

Coffee Specific questions

1. How and where was coffee discovered?
2. What are the two types of coffee that are extensively cultivated?
3. There are four main steps to coffee roasting, first roasting, first crack, pyrolysis, and then second crack. Please describe what is happening at each stage.
4. How much caffeine is in an average sized cup?
5. Caffeine has been described as the most widely used drug in the world. What is the main target of caffeine in the body? (think receptor/ligand interaction and identify the target receptor)
6. What happens when you stop drinking your daily coffee? why?
7. What are the three main ways that coffee can be decaffeinated?
8. What contributes chemically to the staling of coffee?