

TEA CHEMISTRY

<http://www.youtube.com/watch?v=EFPosXIYGPO>

1. Answer the questions:

- a. Why does tea change colour after adding lemon juice?
 - 1) Because the professor added an indicator before the experiment.
 - 2) The acid from lemon juice adds an electron to the indicator.
 - 3) Tea contains molecules that behave like indicators.
 - 4) The acid breaks bonds in the molecule.
- b. Is there any difference between adding milk before tea and tea before milk for the professor?
 - 1) Yes, there is a big difference
 - 2) He doesn't know because he doesn't like tea with milk
 - 3) No, absolutely
- c. What is the task of the machine that we can see in the movie?
 - 1) Measuring different sorts of hydrogen atoms in a molecule.
 - 2) Feeling tastes of different teas and comparing them.
 - 3) Checking if there are any hydrogen atoms in molecules.
- d. Nowadays the most popular method of decaffeination is:
 - 1) Using dry-cleaning fluid.
 - 2) Using carbon, chlorine and hydrogen.
 - 3) Using highly compressed CO₂.

2. Decide if this statements are true (T) or false (F).

- a. Tea with lemon and without it absorbs light in the same way despite having a different colour.
- b. Hot water extracts more pesticides from tea than cold water.
- c. Caffeine doesn't have a big influence on the taste of tea.

3. Complete the sentences:

- a. I don't really like black tea, but I'm green tea.
- b. Lemon juice is very
- c. We'll try in some lemon.
- d. The acid from the lemon juice to the molecule of an indicator.
- e. (...) it causes the bonds of the molecule to switch around and so they in quite a different way.
- f. When you put tea in water, hot water a number of different chemicals from tea. These are not (...).
- g. They used a machine called Nuclear Spectrometer .
- h. It's quite easy to get a of tea and put it in a tube like this.
- i. There I've got a real of green tea.
- j. The traditional way of removing caffeine from coffee or tea is by using
- k. It is a compound of carbon, chlorine or hydrogen, which sometimes can leave quite unpleasant in the coffee beans or tea leaves.
- l. Nowadays the preferred method for removing caffeine (...) is by using highly compressed carbon dioxide, so called, which can dissolve out caffeine without dissolving very much else.
- m. The caffeine that you extract can be sold on to people who make