waag society

institute for art, science and technology

Iodine clock reaction

Consumables and Equipment

- 4x 50 mL tube
- 1000 mg Vitamin C tablet (you can also use two 500mg of course)
- Iodine (2%) availabe at a drug store
- Hydrogen peroxide (3%) also from a drug store
- Liquid Starch Solution (0.3%, so 3 grams of starch in 1 liter of heated water)
- Warm water
- Pipettes
- Plastic bag
- Safety goggles
- Marker

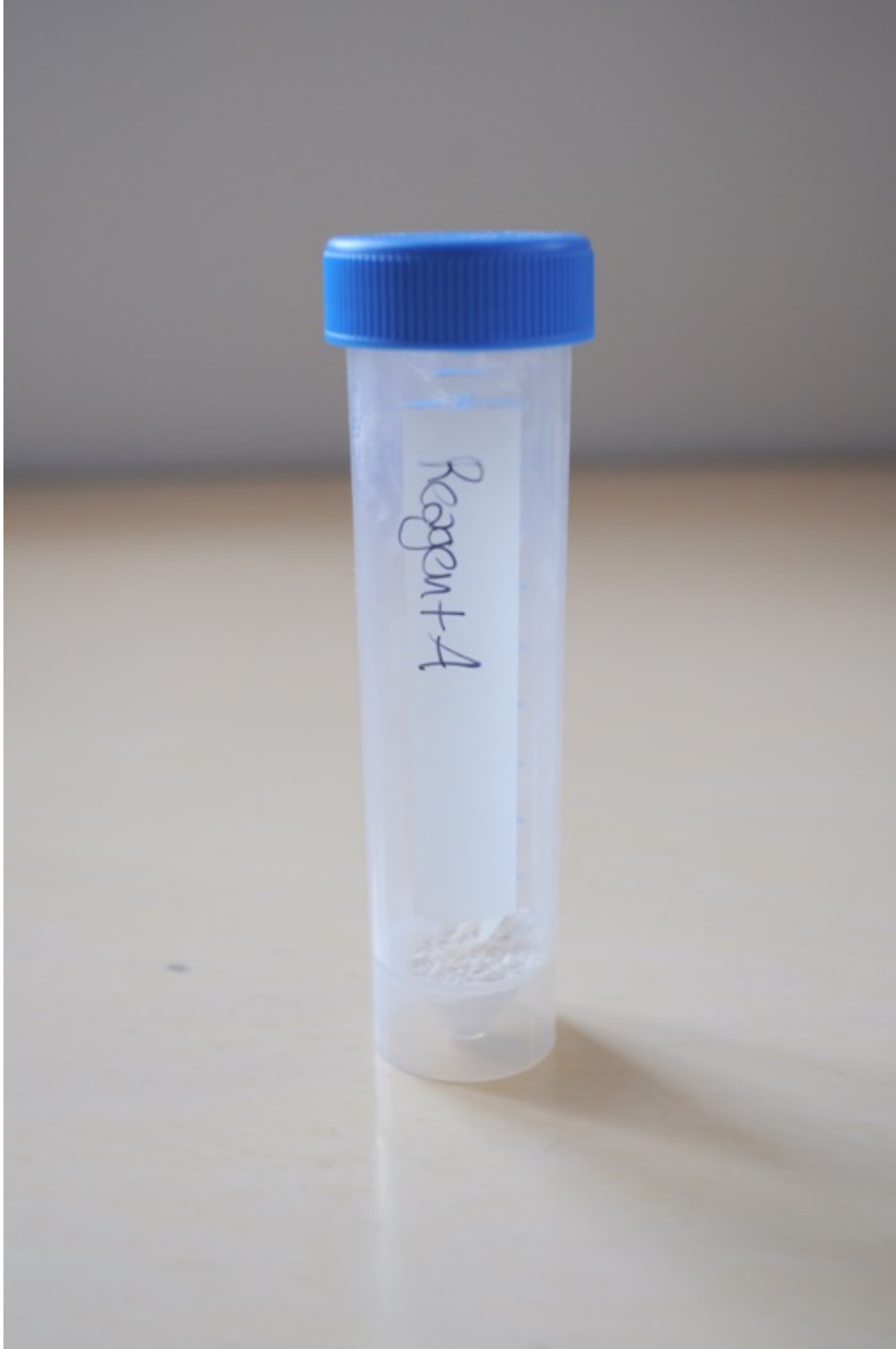
Iodine clock reaction

Put on those safety goggles

Iodine clock reaction

Crush the Vitamin C tablet in a plastic bag

- Put the powder in a 50 mL tube
- label it with “Reagent A”



- Add 50 mL of warm water.
- Stir or shake for at least 30 seconds.

- Transfer 5 ml of Reagent A into a new 50 mL tube

- Label as “Reagent B”

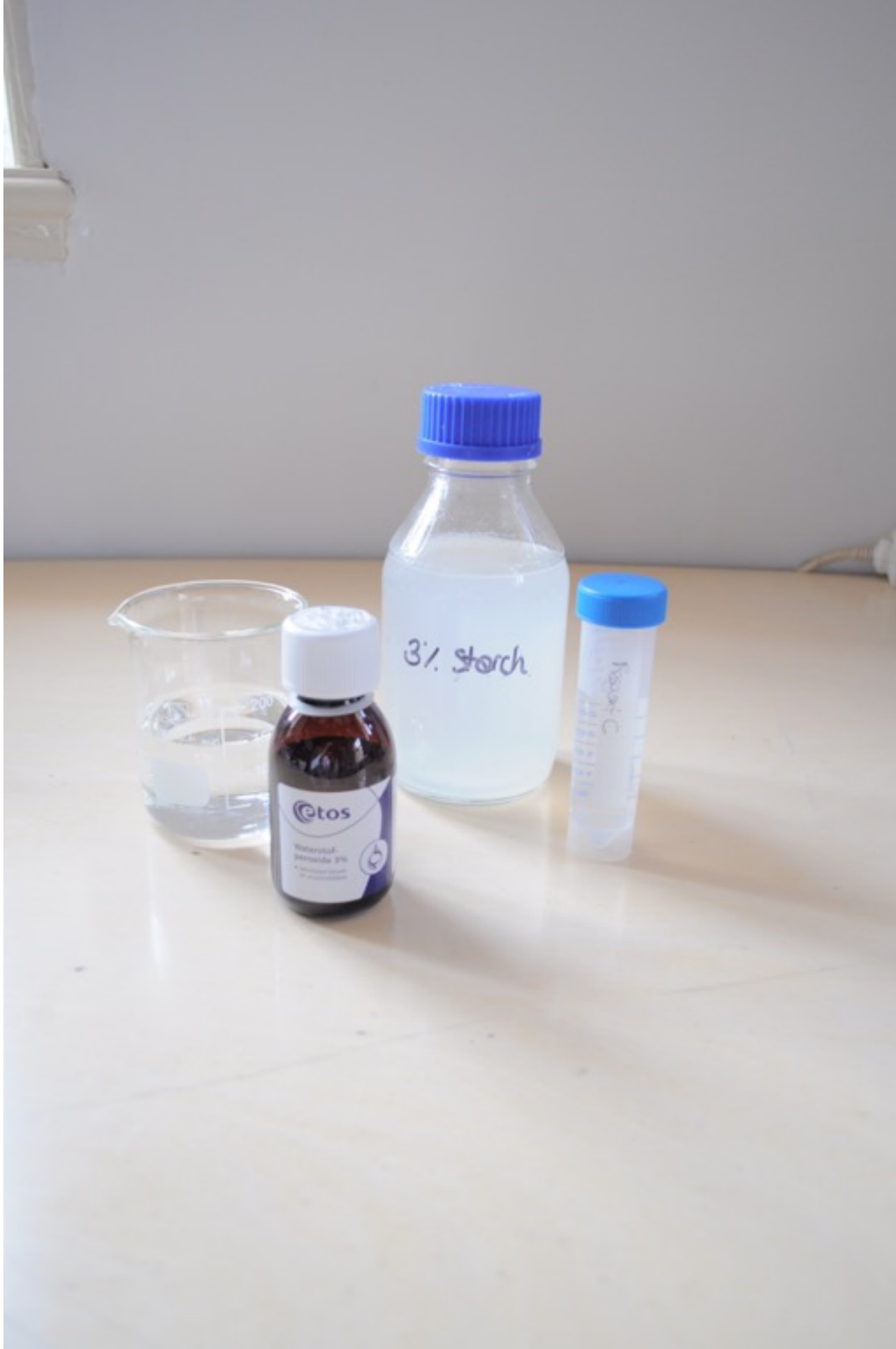
Add:

- 40 mL of warm water +
- 5 mL of the iodine.

In the third 50 mL tube mix:

- 15 mL of warm water,
- 15 mL of the hydrogen peroxide
- 2.5 mL of the liquid starch.

This is “Reagent C”



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- Mix 25 mL of Reagent C with 25 mL of Reagent B

- Immediately place in a spectrometer or just watch what happens
- Record the change to the spectrum