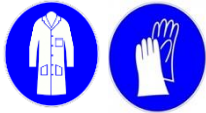


Analysis of river samples for Suspended Sediment Concentration (SSC)

Safety/ Protective equipment



Material

- Vacuum pump
- Graduated cylinder
- Filter unit
- Filters :Express plus PES 0.22 μ m 47mm (Merck milipore : GPWP04700)
- Oven 105°C
- Analytical balance
- Glass Petri dish

Method

- Check that the equipment you are going to use is clean, otherwise rinse with deionized water.
- Weigh a dry filter on the analytical balance. Record the value in your laboratory notebook.
- Place the filter on the filter unit (1) and aim the funnel at the system (2). Check that everything is correctly set, so that there are no leaks.
- Take a sample, shake it well and pour between 100 and 500mL of water into a graduated cylinder. The volume depends on the environment (lake, river), and the turbidity of the water. You must have enough material to get a good measurement.
- Note in your lab notebook the volume of water you are going to filter. Also record all the information about the time and date of sampling on the cylinder if it was not done at the time of sampling.
- Pour the contents of the cylinder into the filtering device. Rinse the cylinder with distilled water and turn on the pump.
- Filter the sample. At the end of filtration rinse the edges of the funnel with distilled water so that all sediment settles on the filter.
- Write the name of the sample you have filtered on the glass petri dish (lid + bottom of the dish). With tweezers remove the filter from the filtration system and place it in the petri dish.
- Place the plates (without the lid) in the oven at 105°C and dry the filters for 2 hours.
- After 2 hours remove the filters from the oven. Weigh the filter and place it back in the oven for 30 min. Weigh again and make sure that the weight has not significantly decreased, otherwise repeat the operation until the weight is constant.
- Wash and dry the filter unit and cylinder before starting a new sample.

