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Protocol status: Working
This is the protocol we use in-house and recommend to customers to clean the Sentek pH probes for use with the OGI BioReactor pH Module.

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Care and Cleaning of pH Probes

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ABSTRACT

This is the protocol we use to clean the probes used with the OGI Bio pH Module.

GUIDELINES

The probes should be cleaned immediately after an experiment to prevent contamination.
The protocol steps should be carried out in quick succession to prevent the probe tip from drying out.
pH probes should always be stored wet, with the tip soaked in Sentek electrode storage solution.

MATERIALS

70% ethanol.
Ultrapure (18 MOhm) water.
Sentek electrode storage solution.

SAFETY WARNINGS

Do not touch the electrode glass bulb with fingers or other oily or abrasive objects.
DO NOT clean the electrodes by rubbing with a paper towel or cloth as this may build charge and interfere with the pH measurements.

BEFORE START INSTRUCTIONS

Ensure sterile conditions are maintained all through the protocol.

Keywords: pH Probe, OGI Bio,
Cleaning

Prior to Running an Experiment

1m

1 Prior to removing the storage sleeve, visually inspect the probe for trapped air bubbles within the electrolyte solution. If bubbles are present, shake probe in a downward motion to remove them.

2 Unwrap the parafilm and remove the storage sleeve from the probe.

3 Rinse the storage sleeve with ultrapure water and shake to remove any residues of water.

4 Rinse the probe by spraying ultrapure water on the thicker portion and allowing it to run down the lower shaft.

5 Repeat Step 4 with 70% ethanol.

6 Gently dab dry the probe with a paper towel.

7 Insert the pH probe through the flask bung.

8 Spray the lower protruding glass portion of the probe with 70% ethanol.

9 Fill the storage sleeve with 70% ethanol.

10 Pinch the top of the sleeve to temporarily deform it, such that air cannot be trapped inside the sleeve when it is slid onto the electrode's tip.

11 Slide the deformed sleeve onto the electrode's tip and remove after 1 minute. 1m

12 Rinse the sleeve with ultrapure water and set aside to dry.

13 Rinse the lower portion of the pH probe with ultrapure water. It is now ready for an experiment.

After an Experiment

14 Remove the probe from the bung.

15 Spray ultrapure water on the thicker portion and allowing it to run down the lower shaft. Perform this and other washes over a designated waste bottle.

16 Repeat Step 15 with 70% ethanol.

17 Rinse the storage sleeve with ultrapure water and shake to remove excess liquid.

18 Repeat Steps 9 through 11.

19 Repeat Steps 15 and 17.

20 Gently dab the probe dry with a paper towel.

21 Pipette 100 µL of Sentek electrode storage solution into the sleeve.

22 Pinching the top of the sleeve as in Step 10, slide the sleeve over the end of the pH probe.

23 Dab away any excess fluid with a paper towel.

24 Wrap the sleeve with parafilm such that the film secures the end of the sleeve to the glass of the probe. Store upright to prevent the formation of bubbles within the electrolyte solution.