

### General guideline for the preparation of buffers

- Calculate the amounts of required ingredients of the buffer.
- Solve components in an appropriate **sub-final** volume of H<sub>2</sub>O or other solvent.
- Use a measuring cylinder or other beaker that allows a precise adjustment of the final volume.
- Calibrate the pH-meter.
- Adjust pH using a pH-meter. Make sure that the solution is stirring by use of a stir bar during the adjustment.
- Adjust final volume.
- Fill in appropriate bottles/beakers for storage/autoclaving/direct use.

### Calibration of the pH-meter

- Rinse the electrode with water (Reinstwasser).
- Decide in which range you need to calibrate, pH 4-7 or pH 7-9, respectively.
- Insert electrode into the first buffer. Press twice "Cal".
- System calibrates automatically; once it is completed "Cal2" appears.
- Insert electrode into the second buffer. Press "Cal".
- System calibrates automatically; once it is completed the display shows the actual pH.
- After use, make sure that the electrode is properly stored in 3 M KCl solution.