

Interactive comment on “Spectrophotometric high-precision seawater pH determination for use in underway measuring systems” by S. Aßmann et al.

C. Frank

carsten.frank@hzg.de

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Thank you for your comments.

The sampling rate was determined by the time to process the sample:

1. take blank (= background)
2. indicator injection
3. measurement (see fig. 5)
4. some reserve

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Steps 1-3 take about 40 seconds and the additional flushing time was set to about 20 seconds. However – following your comment – we tested the time constant of the system by changeing between two samples of differnet pH. We found that after a step change of about 2 pH units the following measurement has already about 96% of the new pH value.

However this does not include the dispersion in the FerryBox and all connecting tubes and pipes which may amount to similar or higher combined flushing and residence time.

Your suggestion concerning the long term stability of the lamp is very useful and we will add data about the long term (days) and short term (minute) stability to the chapter “Optical Design”.

Interactive comment on Ocean Sci. Discuss., 8, 1339, 2011.