Ocean Optics Spectrophotometer Use and a_s sample reading protocol
Written 01/08 WKoz

1. Turn on lamp to let warm up at least one hour before use.
2. Refill epure bottle daily.

E-Pure Instrument BLANKING

1. Fill Cuvette with clean water, clean cell windows.

2. Put in cuvette holder, being cautious of cell orientation, and positioning in holder.

3. Using allen wrench, tighten set screws on holder as tight as possible while still allowing you to get the cell in and out.

4. In OOI software, make sure you're on Scope Mode ("S").

5. Adjust Integration time to make highest peak height approximately 3500 cts.

6. Check that Averaging is set to 30; Boxcar to 10.

7. Once reading is stable, set this sample as your global reference – press the light bulb on the top line of icons

8. Remove water cuvette.

9. Place something BLACK close in tight to the "OUT" side (left side, as set up in LMG0801) of the fiber-optics cable.

10. Once reading is stable, set this as your global dark – press the grey lightbulb on the far left of the top line of icons (around 139-141)

11. Replace water sample cuvette – again be extremely cautious of positioning

12. Switch to "Absorbance Mode" ("A")

13. Readings should be very close to zero for all wavelengths. If not, repeat whole process, again assuring cuvette placement is consistent. Save this reading as Instrument blank.

SAMPLES

1. Read E-Pure Sample Blank first, then 6 light depth samples.

2. Rinse cuvette three times with sample water, then fill and cover.

3. Place in cuvette holder in correct orientation.

4. Allow reading to settle for about 30s.

5. File → Save → Sample

6. Enter filename
   a. For LMG0801, we used EVENT_%X where X is a consecutive letter for replicate readings on a sample, and the default extension.

7. Edit →Copy

8. Open Excel, put cursor in correct cell and paste
   a. For LMG all files saved in LMG0801_as.xls with each event as a worksheet

9. Refill Cuvette and read two more time.

10. When done with that sample, rinse three times with E-pure water

11. Repeat with next sample

12. Save under my documents with current cruise name. Each experiment is saved under a separate tab.