

SeaBASS Submission Checklist: Particulate Filter Pad Absorption

Please fill out the Collection, Measurement, and Analysis sections. Answer below each question. Rename this file to be specific to your data, e.g. "checklist_particulate_absorption_MyCruiseName.rtf"

Experiment Name

Cruise Name

Plumes and Blooms

I. SAMPLE COLLECTION METHODS

1) How were samples collected, e.g., Niskin bottle on a CTD rosette, or underway flow through seawater system? If applicable, were samples taken on upcast or downcast?

Niskin bottle on a CTD rosette

2) If applicable, was the bottle emptied into a large carboy for subsampling or was sampling directly from the bottle?

Sampling directly from the bottle

3) What was the vacuum pressure for filtration?

15 in Hg

4) Were blank filters collected? (Y/N)

No

5) Were replicates collected? (Y/N) If so, how many?

No

6) Were the samples measured fresh or frozen?

frozen

7) In what type of container were the samples stored? (e.g., histoprep, foil, etc.)

foil

8) How were the samples preserved immediately after collection (e.g., Liquid nitrogen, dry ice)

Liquid nitrogen

9) What were the long-term storage conditions (e.g., temperature)?

II. SAMPLE MEASUREMENT METHODS

**Note it is recommended that OD with blank filter subtracted should range between 0.1 and 0.4 per the IOCCG Absorption Coefficient Protocol

1) List the instrument make, model and accessories

Shimadzu UV-2401, ISR 2200 integrating sphere

2) List instrument calibration, performance tests and maintenance performed

3) What was the method of measurement? (e.g., transmittance, transmittance-reflectance, inside sphere, etc.)

Transmittance

4) List any references for your protocol

5) Provide filter pad scan settings

a. Wavelength range: 300-850 nm

b. slit band width: 2 nm

c. scan speed: 1200 nm/min

6) How were the blank filters measured?

Blank GF/F filters soaked in ultra pure water

7) Were air scans measured to monitor instrument stability?

No

8) How many filter rotations were measured?

3

9) What was the extraction method? Include concentration. (e.g., 95% methanol, hypochlorite, etc.)

100% methanol

III. DATA ANALYSIS METHODS

1) Describe filter blank and air scan subtractions, where applicable

Subtraction of 3 averaged rotations of the blank filter

2) Define scatter correction/null correction method (if using transmittance method)

Null correction on absorbance at 850 nm

3) Define which beta amplification correction that was used, with citation

$$OD_s = 0.251OD_f + 0.283 OD_f^2$$

Guillocheau, N., 2003: Beta-Correction Experiment Report. ICES Internal document, UCSB, April 2003.