**Colored dissolved organic matter absorption method**

**(Cdom)**

**Sampling**

Samples are collected in Qorpak bottles and refrigerated until analysis.

**Analysis procedure**

The day after the cruise, Cdom samples are filtered on pre-rinsed 0.2 m polycarbonate filters. Samples are run within a week after collection and refrigerated in the meantime.

When ready to be analyzed, the samples are allowed to warm to room temperature. A Shimadzu UV-2401PC dual-beam is used to determine optical densities. The measurements are performed between 250 nm and 750nm. At the beginning of the analysis, a baseline is run with both 10 cm quartz cuvettes filled with Q-water. The pure water scan is then recorded as an initial blank scan. This operation is repeated in order to obtain a second initial blank scan. The Q-water in the sample cuvette is discarded and the cuvette is rinsed 3 times with a small amount of the sample water. The cuvette is then filled with the sample and scanned. The cuvette is filled again with the same sample and scan in order to obtain a duplicate. The same procedure is followed for each sample. Two other blank scans, with both cuvettes filled with Q-water, are performed at the end of the analysis.

**Data processing**

The duplicate spectra are averaged and average of the four blank scans are subtracted. The null-wavelength is 700 nm. The optical densities are converted into absorption values as follow:

