

# PROSOPE

**H. CLAUSTRE** : head of mission and project leader

**SURFACE\_AC9 : K. OUBELKHEIR, H. CLAUSTRE**

---

[Protocol](#) | [Data explanation](#) | [References](#)

---

## Responsible persons:

**Kadija Oubelkheir (kadija@obs-vlfr.fr) and Hervé Claustre (claustre@obs-vlfr.fr)**

**Laboratoire d'Océanographie de Villefranche, Quai de la Darse BP 08, 06238  
Villefranche sur Mer - France**

---

## Protocol

Between the 11th and 12th September, continuous measurements (6 Hz) of absorption [ $a(l)$ ] and attenuation [ $c(l)$ ] coefficients were conducted at nine wavelengths (412, 440, 488, 510, 532, 555, 630, 676, 715 nm), on Moroccan upwelling, using a flow-through *in situ* absorbance-attenuance meter (AC9, WETLabs) connected to the seawater inlet. As the measurements are referenced to pure (Milli-Q) water, the obtained absorption and attenuation coefficients exclude the contribution of water. Data were acquired using the WETview (WETLabs) software and averaged over 15-second intervals. Correction for *in situ* temperature and salinity effects on the optical properties of water is applied following the algorithm given by . Correction for incomplete recovery of scattered light in the ac9's absorption tube (for the ac9 without filter) was performed by subtracting the absorption coefficient at a reference wavelength (715 nm) from all other wavelengths ().

---

## Data

**Column 1: Date/Hour**

**Column 2: Latitude**

**Column 3: Longitude**

**Column 4 - 12: Absorption coefficient (9 wavelengths) ( $\text{m}^{-1}$ )**

**Column 13 - 21: Attenuation coefficient (9 wavelengths) ( $\text{m}^{-1}$ )**

---

**References:**

**Claustre H., F. Fell, K. Oubelkheir, L. Prieur, A. Sciandra, B. Gentili and M. Babin. 2000. Continuous monitoring of surface optical properties across a geostrophic front: Biogeochemical inferences. *Limnology and Oceanography*. 45: 309-321.**

**Pegau W. S., G. Deric and J. R. V. Zaneveld. 1997. Absorption and attenuation of visible and near-infrared light in water: dependence on temperature and salinity. *Applied Optics*. 36: 6035-6046.**

**Zaneveld J. R. V., J. C. Kitchen and C. M. Moore. 1994. The scattering error correction of reflecting-tube absorption meters. *Proc. SPIE, Ocean Optics XII*. 2258: 44-55.**