

## DATA SET SUMMARY (EDMED)

Project : **ALMOFRONT 2**

Data set name : **ALMOFRONT 2**.....

**CRUISE OR MOORING** : **CRUISE**

**LABORATORY** in charge of : **Laboratoire d'Océanographie Biologique et Ecologie du Plancton marin**  
**LOBEPM BP 28 06234 Villefranche/mer FRANCE**

### DOMAINS/KEYWORDS :

#### PHYSICAL OCEANOGRAPHY ex :

SUBSURFACE HYDROGRAPHY (T,S)  
CURRENTS, DRIFT, DISPERSION  
SURFACE HYDROGRAPHY (EG T,S)  
OPTICAL PROPERTIES OF SEA WATER

#### INORGANIC CHEMISTRY

DISSOLVED GASES  
NUTRIENTS  
RADIO-ISOTOPES

#### MARINE BIOLOGY

BENTHOS  
ORGANIC/BIO-CHEMISTRY  
MARINE BIOLOGY  
BULK CHEMISTRY (EG PH, TCO<sub>2</sub>)  
PRODUCTIVITY, BIOMASS  
PIGMENTS (EG CHLOROPHYLL), LIGHT  
PLANKTON  
FISHES  
DEEP SEA ECOLOGY/FAUNA  
MICROBIOLOGY

#### OTHER DATA

MARINE SNOW  
Particles  
CTD Fluorometer & Nephelometer

### TIME-PERIOD :

December 97 – January 98

### GEOGRAPHIC-COVERAGE :

Alboran Sea

### MEASUREMENT TYPE : (W P F S O B)

**W**: sea water    **P** : water column particles    **F** : settling particles    **S** : sediment    **O** : pore water  
near the sediment

### OBSERVED PARAMETERS :

*(units have to be consistent with the International System of Units described in the project Data Manual)*

Files \*.TT2 :

NAME	UNIT	FORMAT
pressure	Decibars	Scientific
temperature	Degrees	
salinity*	PSU	
Density*	Kg/m <sup>3</sup>	
nephelometre	FTU	
fluorometre	Relative unit	
particles concentration (particles >= 480 µm)	N/litre	
ESD* mean (MSDP) (particles >= 480 µm)	mm	
ESD* median (particles >= 480 µm)	mm	
Bio volume of particles* (particles >= 480 µm) (VQCP)	ppm	
Carbon Weight* (Dry Weight x 0.2 Aldredge 1988) (particles >= 480 µm)	µgC/l	

\* calculated values

Files \*.His :

NAME	UNIT	FORMAT
Volume of analysed sea water	liter	Scientific
Depth of sample	Dbars	
# particles 3 pixels surface (92 µm ESD)		
# particles 4 pixels surface		
# particles 5 pixels surface		
.....		
# particles 150 pixels surface		

Usefull equations :

$$y = 0.02x^{1.137} \quad x = \text{Surface (pixels)} \quad Y = \text{Surface (mm}^2\text{)}$$

**INSTRUMENTS** (separate forms to describe the instruments) : Underwater Video Profiler ( U.V.P. 3)

**DESCRIPTION & OBJECTIVES** :

**VOLUME/NUMBER OF PROFILES** :56 ( CTD total) 40 ( CTD+particles)

**RESPONSIBLE SCIENTIST** : GORSKY Gabriel

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**BIBLIOGRAPHICAL REFERENCES** (METHODOLOGY) :

Allredge, A. L. (1979) The chemical composition of macroscopic aggregates in two neritic seas. Limnology Oceanography, 24(5) : 855-866.

Allredge, A. L. and M. W. Silver (1988) Characteristics, Dynamics and significance of marine snow. Progress in Oceanography, 20 : 41-82.

Chester, R. and H. Stoner (1974) The distribution of particulate organic carbon and nitrogen in some surface waters of the world ocean. Marine chemistry, 2 : 263-275.

Gorsky, G., Aldorf, C., Picheral, M., Kage, M., Garcia, Y. and J. Favole (1992) Vertical distribution of suspended aggregates determined by a new Underwater Video Profiler. Ann. Inst. oceanogr., Paris, 68 (1-2): 275-280.

Gorsky, G., Picheral, M. and L. Stemann (in press) Use of the Underwater Video Profiler for the Study of Aggregate Dynamics in the North Mediterranean. Estuarine, Coastal and Shelf Science.

Picheral, M., Grisoni, J-M., Stemann, L. and G. Gorsky (1998) Underwater Video Profiler for the "in situ" study of suspended particulate matter. OCEANS 98, 28 September- 1 October, IEEE/OES conference, Nice, p. 171-174.

Picheral, M., Stemann, L. et G. Gorsky (1995) Système multiparamétrique pour la mesure et la quantification de la matière particulaire en suspension dans la colonne d'eau. 3e Colloque Européen Des Capteurs pour l'Environnement, Grenoble, 30-31 Mars 1995. pp. 162-165.

Stemann, L. (1998) Analyse spatio-temporelle de la matière particulaire. Thèse Doctorale, Université Paris 6, pp 178.

Stemann, L., Picheral, M. and G. Gorsky. (in press) Diel changes in the vertical distribution of suspended particulate matter in the NW Mediterranean Sea investigated with the Underwater Video Profiler. Deep-Sea Research.

TO RETURN TO ARCHIVING CENTER :

WESTERN BASIN

ADRIATIC/IONIAN/Sicily Straits

EASTERN BASIN

⇨ IFREMER/SISMER

⇨ OGS

⇨ NCRM/HNODC

**INSTRUMENT/METHOD** .....Optical & CTD sensors.. IDENTIFIER : (given by the data center)

NAME : Underwater Video Profiler 3 (U.V.P.3).....

PROJECT:MTP II-MATER

**Description of the main instruments/methods used at sea and in the laboratory during the project MTP II-MATER.**

**Examples : CTD, Current meter, salinometer, sediment trap, spectrometer ...**

**LABORATORY (Owner of the instrument or who performs the method ):**

Laboratoire d'Océanographie Biologique et Ecologie du Plancton Marin (LOBEPM) .....

**Address :**

Station Zoologique

BP 28

06234 Villefranche sur mer.....

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Email : **Gorsky@ccrv.obs-vlfr.fr**.

**CONTACT SCIENTIST :**

**Gabriel GORSKY**

**INSTRUMENT NAME** (60) : Underwater Video Profiler III (U.V.P.III) .....

**MANUFACTURER** (60) : **LOBEPM**.....

**MANUFACTURING DATE** (10) : **June 1996** .....

**SERIAL NUMBER** (20) : **CTD S/N 1539**.....

**DESCRIPTION** (240) :

Version 3 of the UVP. Built for the study of MARINE SNOW and ZOOPLANKTON.

Coupled with SBE19 pumped CTD and Chelsea Fluorometer and Nephelometer.

**TECHNICAL CHARACTERISTICS** (240) :

1000 m operational depth / 2 CCD B&W cameras (12 & 6 mm lenses) / In situ recordings at 25 Hz.....

Marine snow mode with structured strobes lights : 1.33 & 6.51 litres analysed volume per image for .....

300 & 240 µm ESD detection limits. (>480 & >460 µm available data set.)

Zooplankton mode with continuous 400 W spots : viewed surface :

425 x 325 mm at 500 mm from the lenses.

Time synchronisation with CTD.

See SBE for SBE19 probe characteristics ( <http://www.seabird.com/> )

See Chelsea for Aquatracka Nephelometer & Fluorometer characteristics ( <http://www.chelsea.co.uk/>).....

**COMMENTS** (120)

**INSTRUMENT TYPE** (circle the main type) :

**In situ Sensor (default)**                      **Transmitter/Receiver**                      **On board recorder**  
**Drifter**    **Towed platform**    **Expendable sensor**

**OTHER ATTACHED EQUIPEMENT** (in case of complex multi sensor:Platform equipment) (10) :

**DATE** (of updating this form) : 07-01-04

MEASURED PARAMETER 1	CALIBRATION DATE	CRUISES	COMMENTS
Temperature S/N 1539	11-2-94		SBE Lab.
	10-11-97		SBE Lab.

MEASURED PARAMETER 2	CALIBRATION DATE	CRUISES	COMMENTS
Conductivity S/N 1539	11-2-94		SBE Lab.
	10-11-97		SBE Lab.

MEASURED PARAMETER 3	CALIBRATION DATE	CRUISES	COMMENTS
Pressure S/N 1539	11-2-94		SBE Lab.
	10-11-97		SBE Lab.

MEASURED PARAMETER 4	CALIBRATION DATE	CRUISES	COMMENTS
Nephelometer S/N 88/167	9-24-96		Chelsea Lab.

MEASURED PARAMETER 5	CALIBRATION DATE	CRUISES	COMMENTS
Fluorometer S/N 88/2615/123	1-5-95		Chelsea Lab.

MEASURED PARAMETER 6	CALIBRATION DATE	CRUISES	COMMENTS
12 mm camera for particles > 480 µm	10/98		LOBEPM

MEASURED PARAMETER 7	CALIBRATION DATE	CRUISES	COMMENTS
6 mm camera for particles > 460 µm	10/98		LOBEPM

**BIBLIOGRAPHICAL REFERENCES (METHODOLOGY) :**

Gorsky, G., Aldorf, C., Picheral, M., Kage, M., Garcia, Y. and J. Favole (1992) Vertical distribution of suspended aggregates determined by a new Underwater Video Profiler. Ann. Inst. oceanogr., Paris, 68 (1-2): 275-280.

Gorsky, G., Picheral, M. and L. Stemmann (in press) Use of the Underwater Video Profiler for the Study of Aggregate Dynamics in the North Mediterranean. Estuarine, Coastal and Shelf Science.

Picheral, M., Grisoni, J-M., Stemmann, L. and G. Gorsky (1998) Underwater Video Profiler for the "in situ" study of suspended particulate matter. OCEANS 98, 28 September- 1 October, IEEE/OES conference, Nice, p. 171-174.

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Stemmann, L. (1998) Analyse spatio-temporelle de la matière particulaire. Thèse Doctorale, Université Paris 6, pp 178.

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