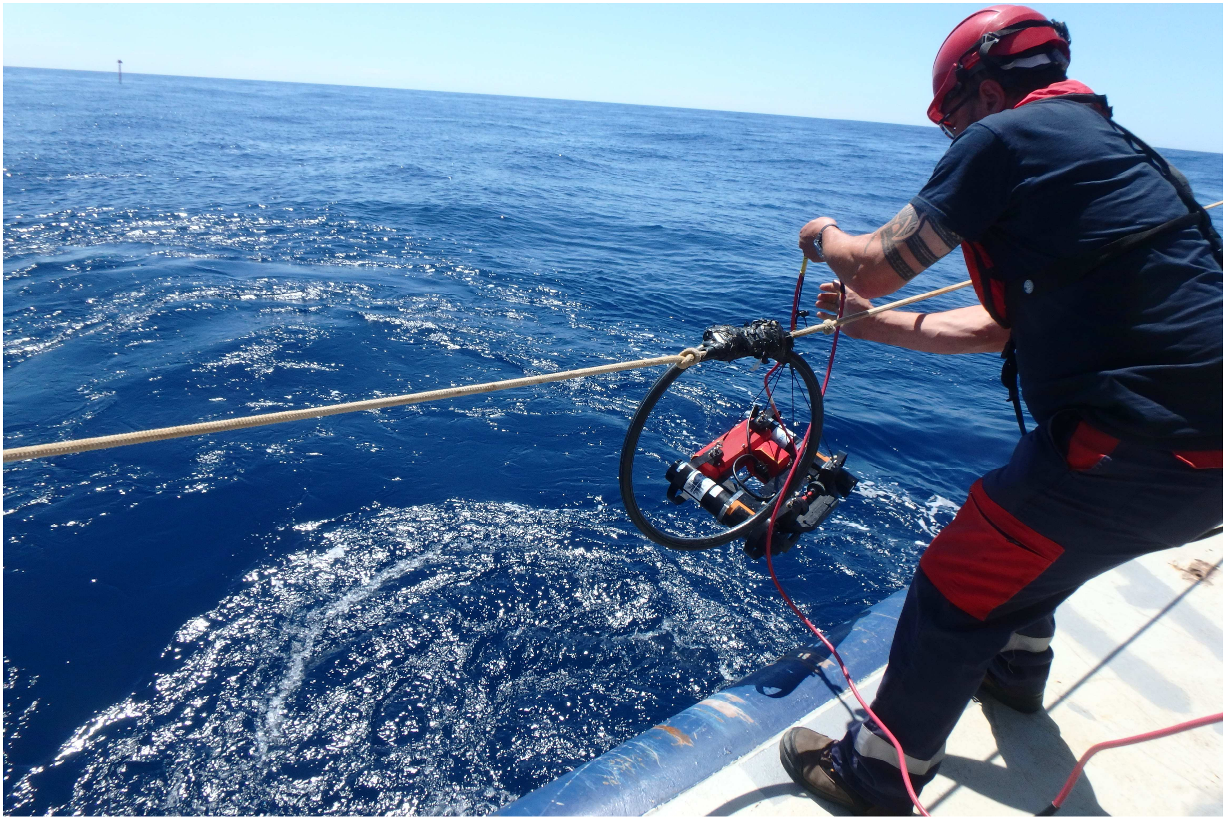
BOUSSOLE PROJECT

C-OPS Data catalogue for 2022
Cruise 238 to cruise 249

Institut de la Mer de Villefranche (IMEV), 06230 Villefranche sur mer, France



Deployment of the Biospherical Compact Optical Profiler System (C-OPS) from the deck of the R/V *Téthys II* under clear blue sky at the BOUSSOLE site.

ESA/ESRIN contract N° 4000119096/17/I-BG

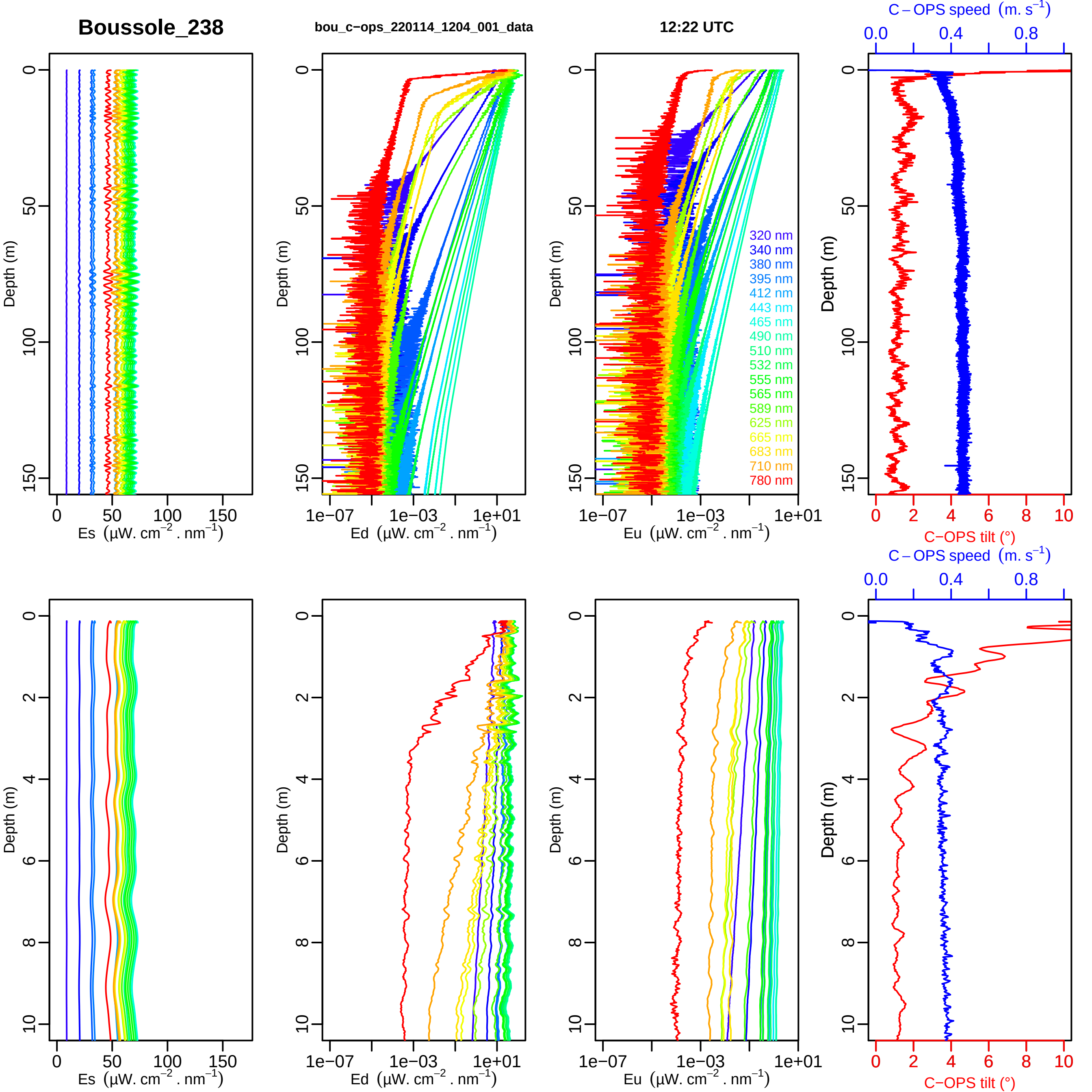
C-OPS parameters

The C-OPS used during the BOUSSOLE cruises is equipped with Es, Ed and Eu* sensors.

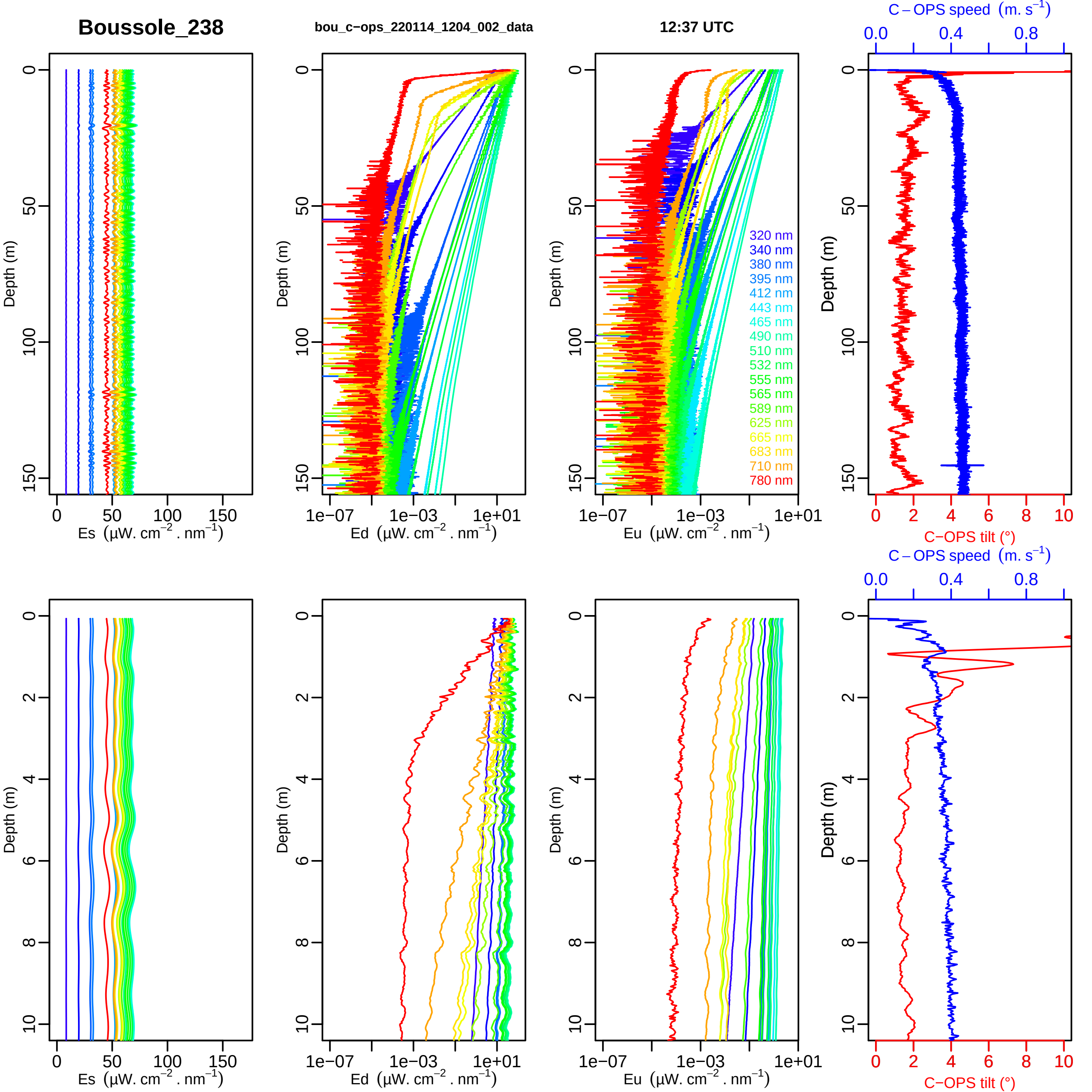
This C-OPS system measures downward and upward irradiance at 18 wavelengths + PAR:
320, 340, 380, 395, 412, 443, 465, 490, 510, 532, 555, 565, 589, 625, 665, 683, 710, 780 nm and PAR.

The plots presented in this catalogue are obtained from raw data and show the radiometric profiles in log scale, the absolute tilt records in water and the descent rate of the C-OPS.

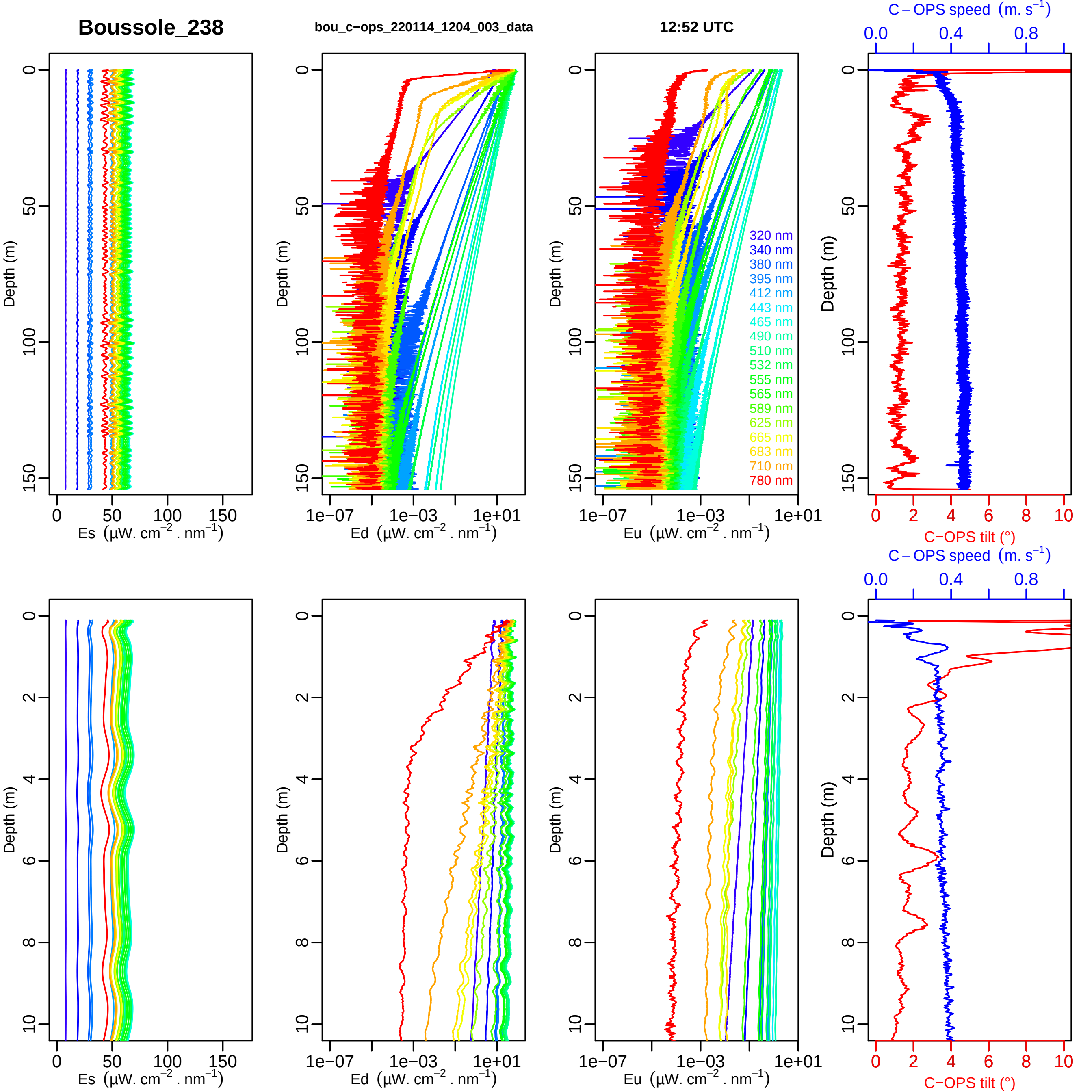
*Es: downward surface irradiance
Eu: upward irradiance
Ed: downward irradiance



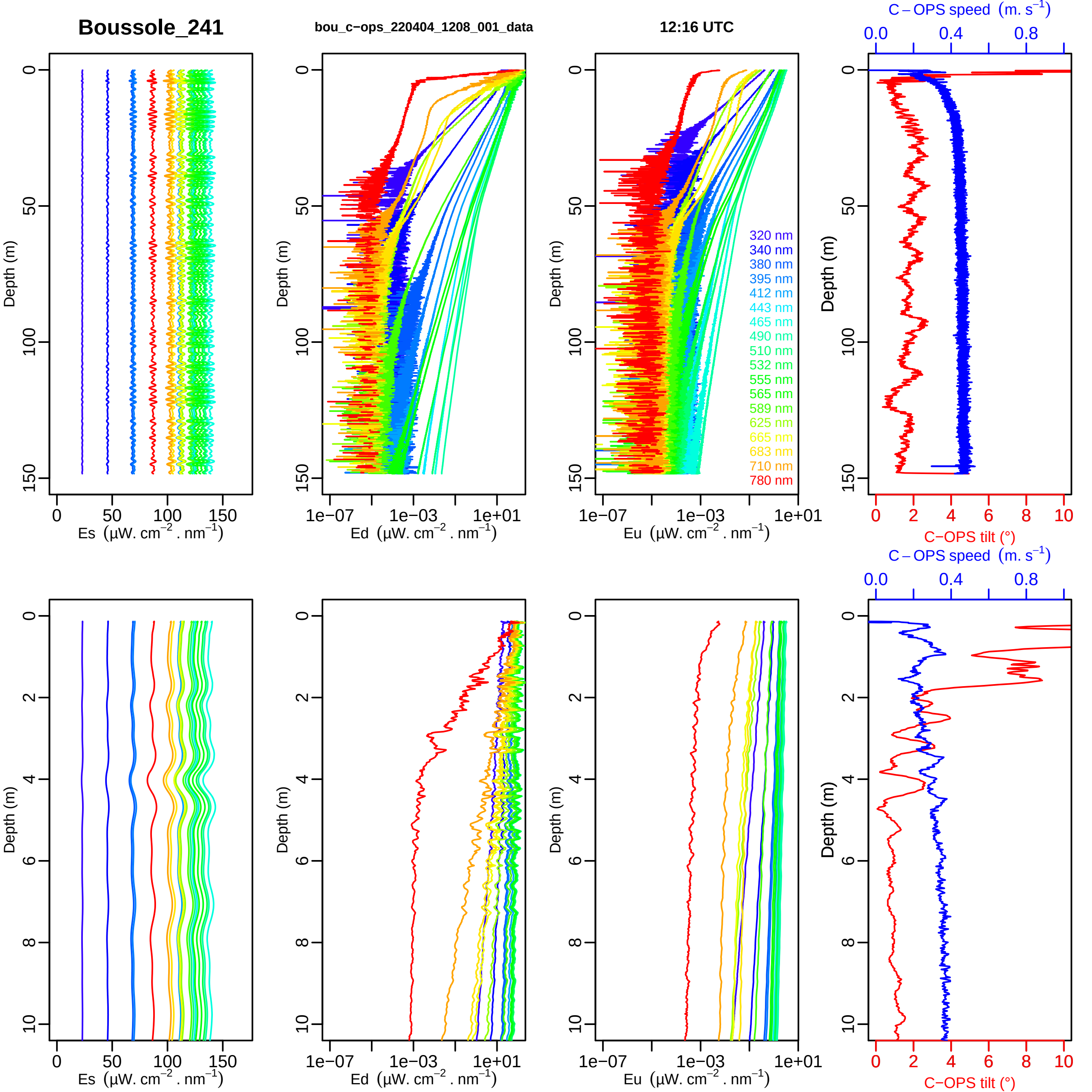
Boussole_238
bou_c-ops_220114_1204_001_data
12:22 UTC
C – OPS speed (m. s^-1)
Depth (m)
Es (µW. cm^-2 . nm^-1)
Ed (µW. cm^-2 . nm^-1)
Eu (µW. cm^-2 . nm^-1)
C–OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



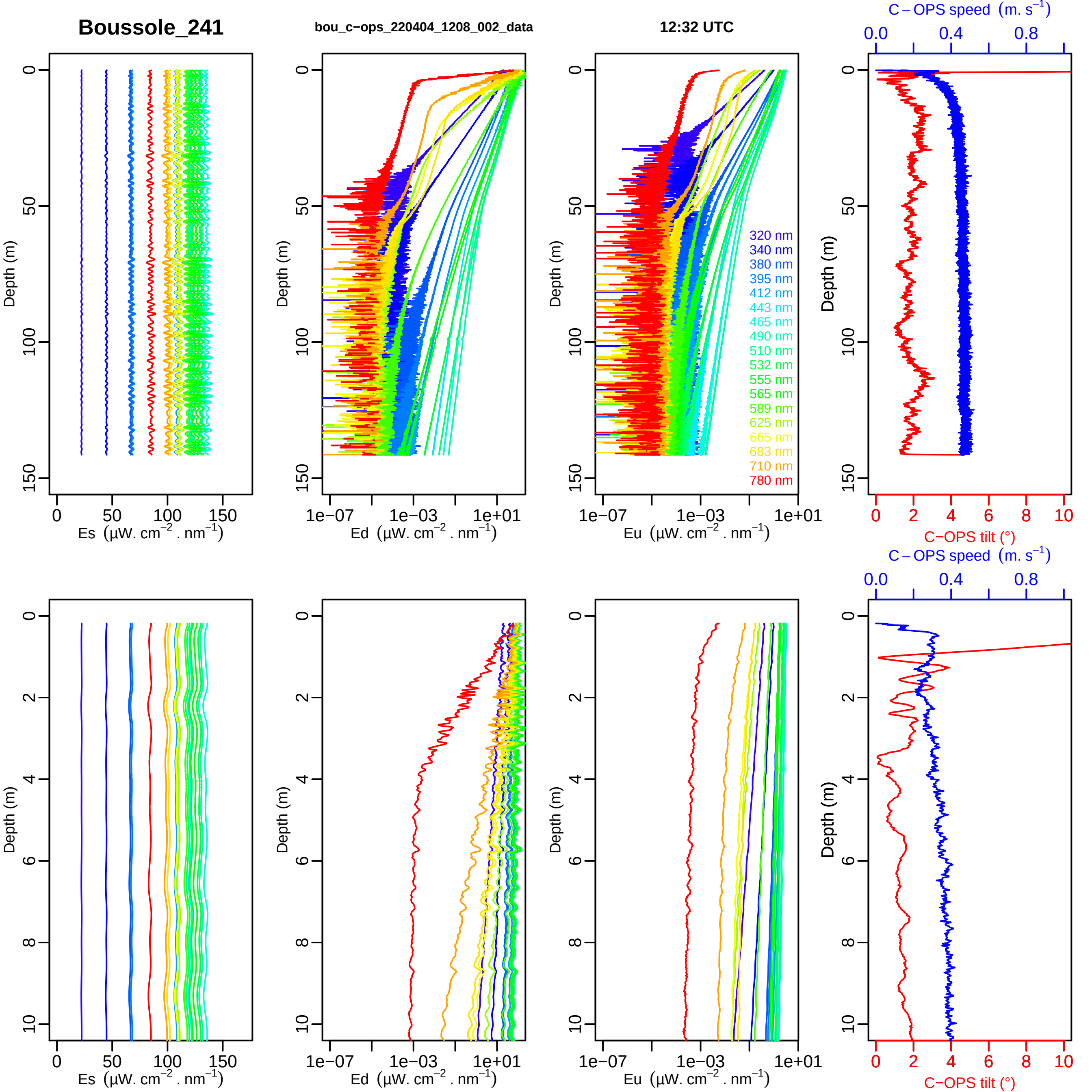
Boussole_238
bou_c-ops_220114_1204_002_data
12:37 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



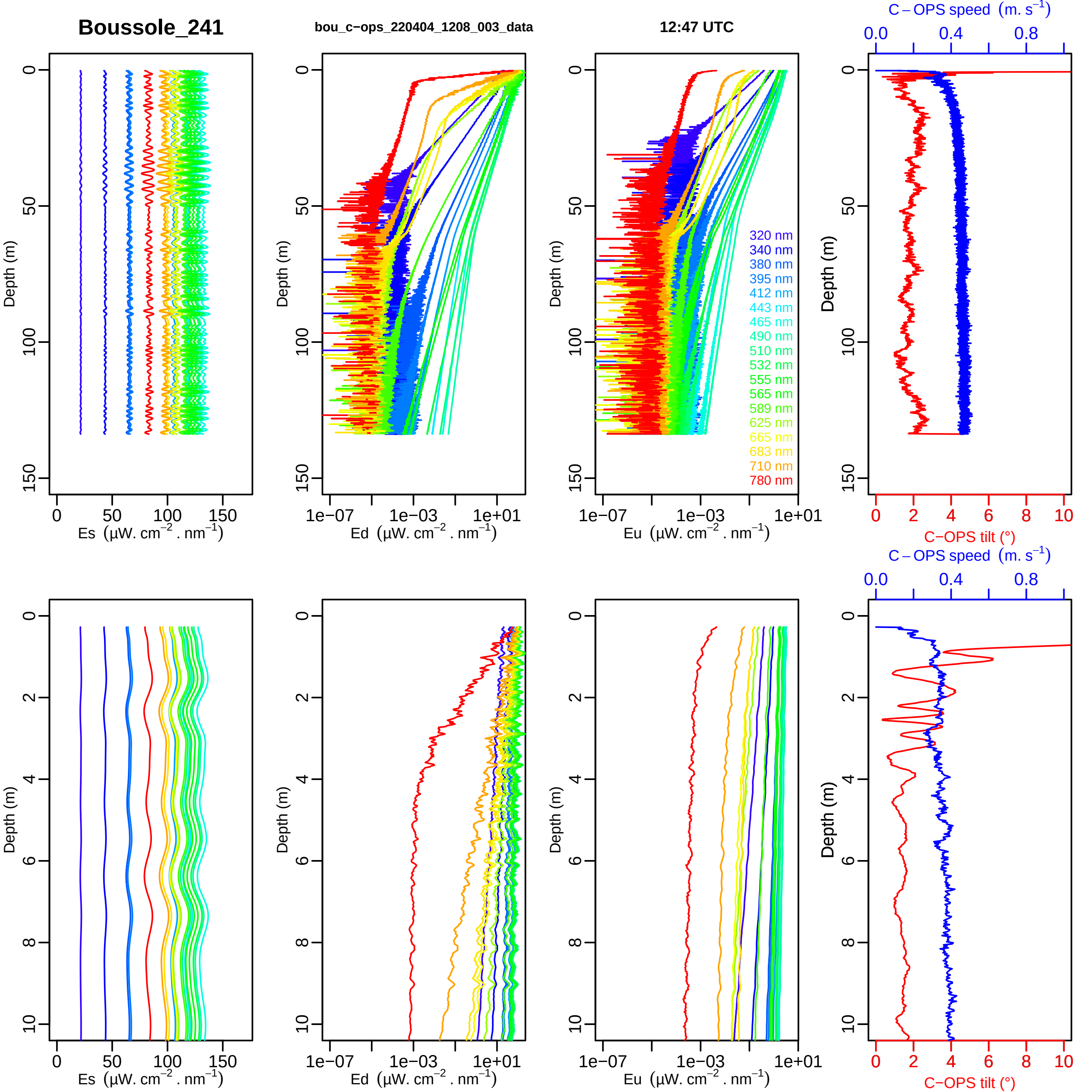
Boussole_238
bou_c−ops_220114_1204_003_data
12:52 UTC
C − OPS speed (m. s−1)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

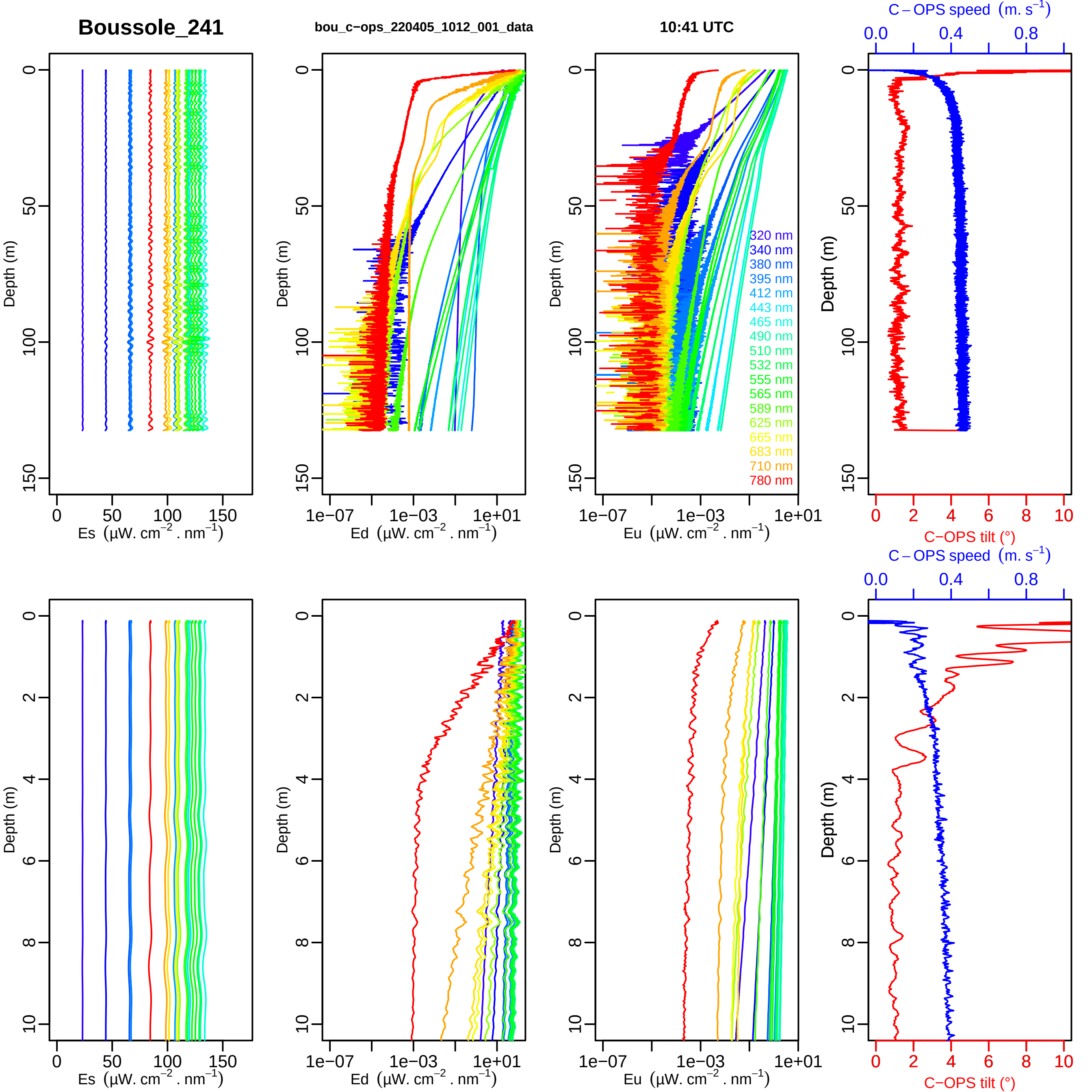


Boussole_241
bou_c-ops_220404_1208_001_data
12:16 UTC
C – OPS speed (m. s⁻¹)
Depth (m)
Es (µW. cm⁻². nm⁻¹)
Ed (µW. cm⁻². nm⁻¹)
Eu (µW. cm⁻². nm⁻¹)
C–OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

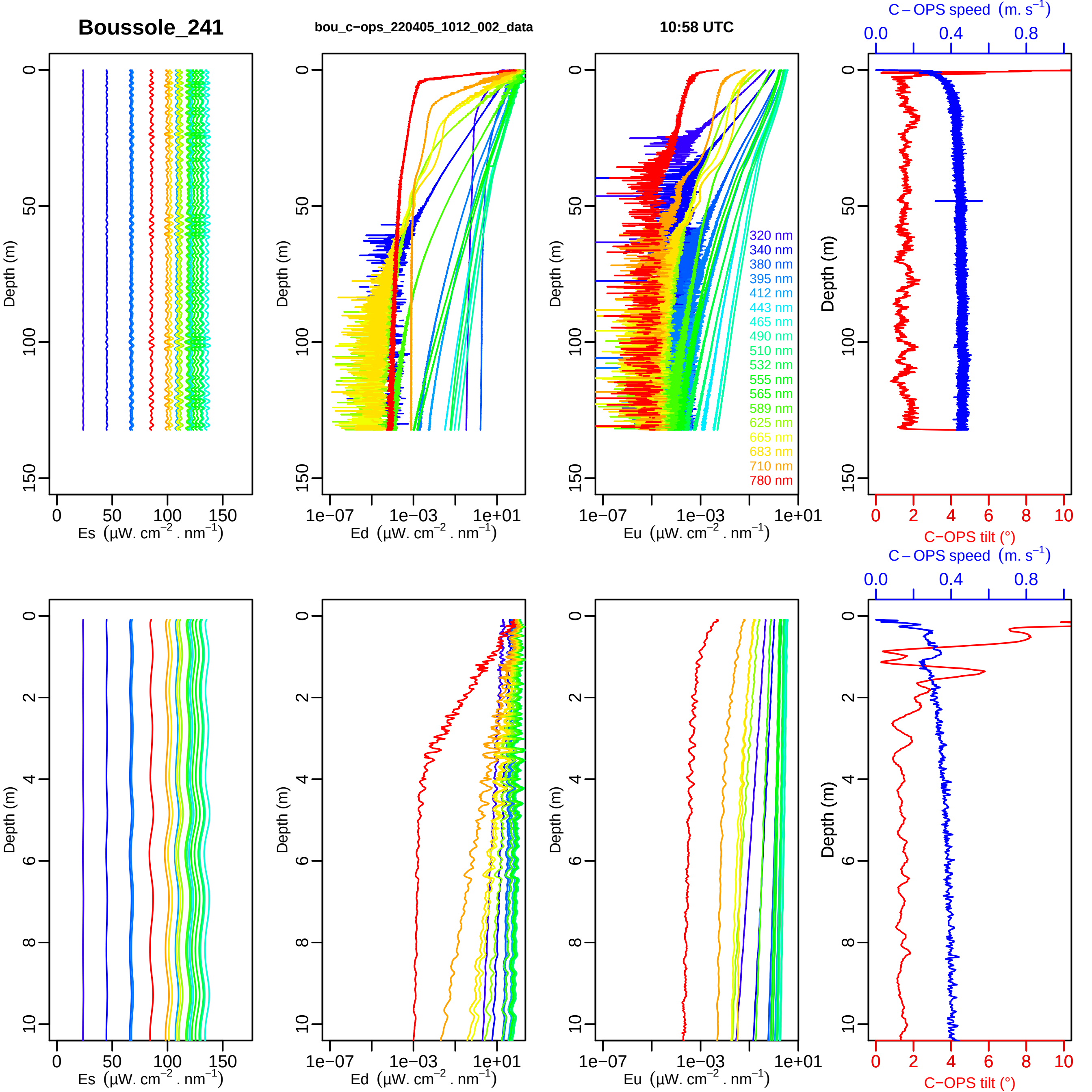


Boussole_241
bou_c−ops_220404_1208_002_data
12:32 UTC
C − OPS speed (m. s^{-1})
Depth (m)
Es (µW. cm^{-2} . nm^{-1})
Ed (µW. cm^{-2} . nm^{-1})
Eu (µW. cm^{-2} . nm^{-1})
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

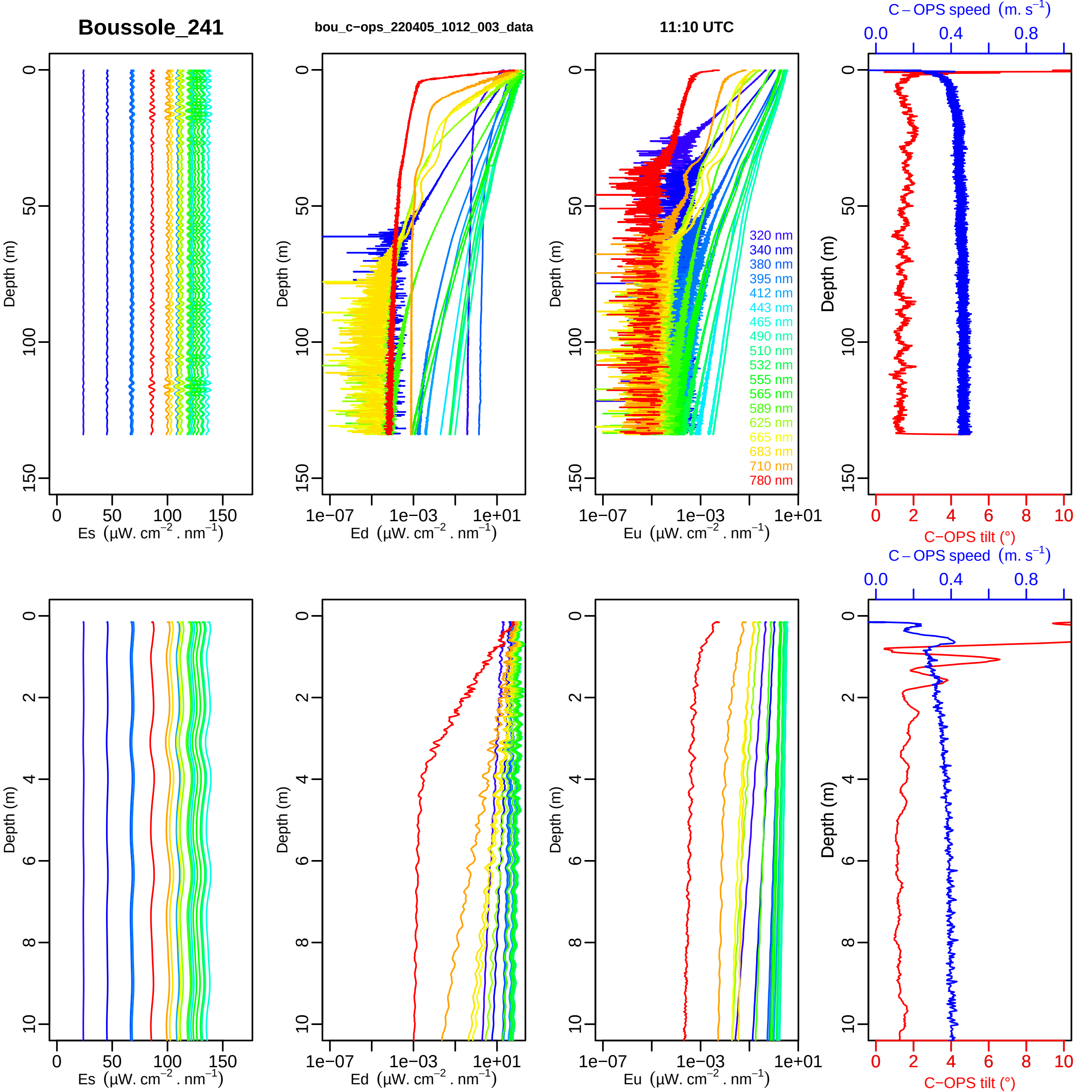

Boussole_241
bou_c−ops_220404_1208_003_data
12:47 UTC
C − OPS speed (m. s−1)
C−OPS tilt (°)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

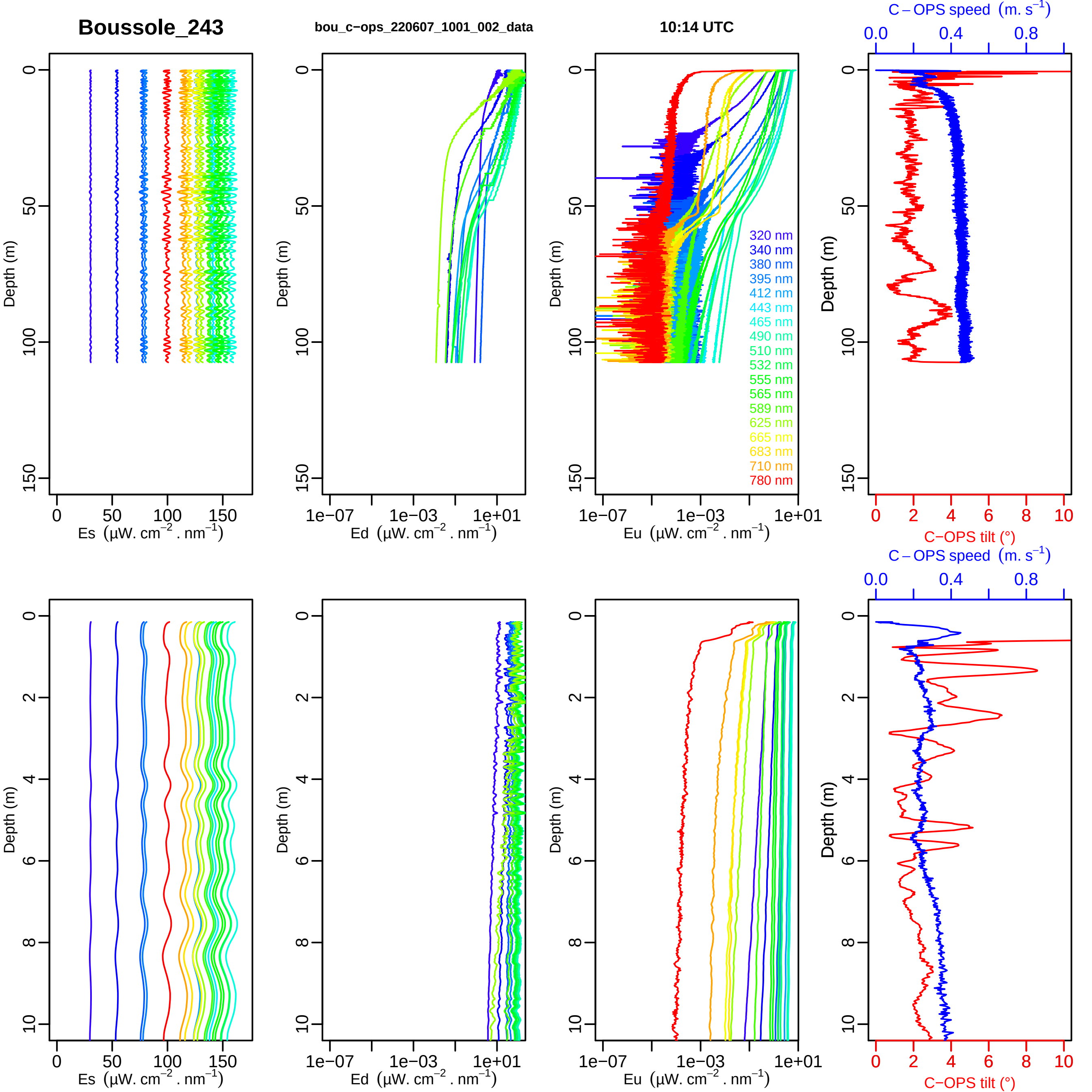


Boussole_241
bou_c−ops_220405_1012_001_data
10:41 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

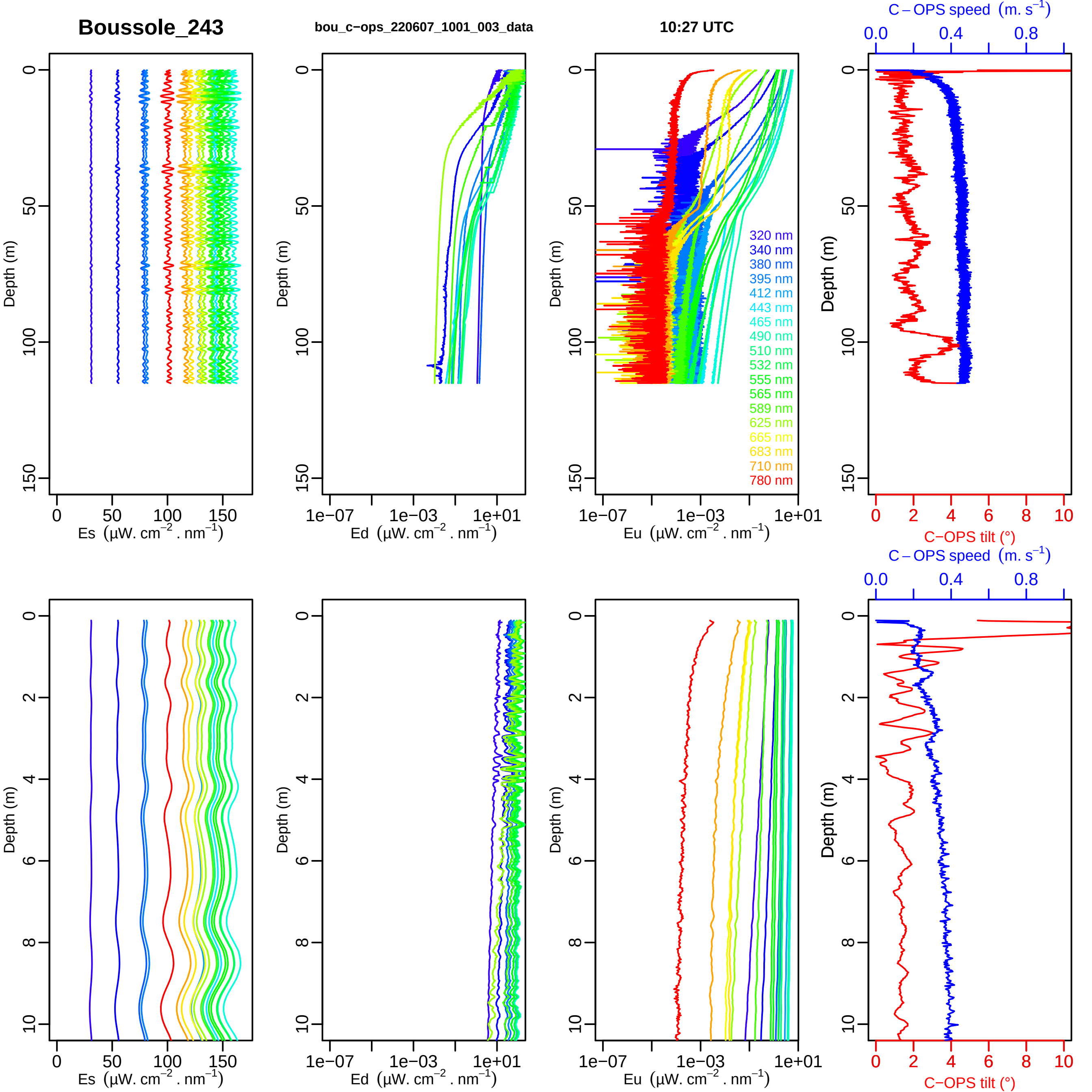


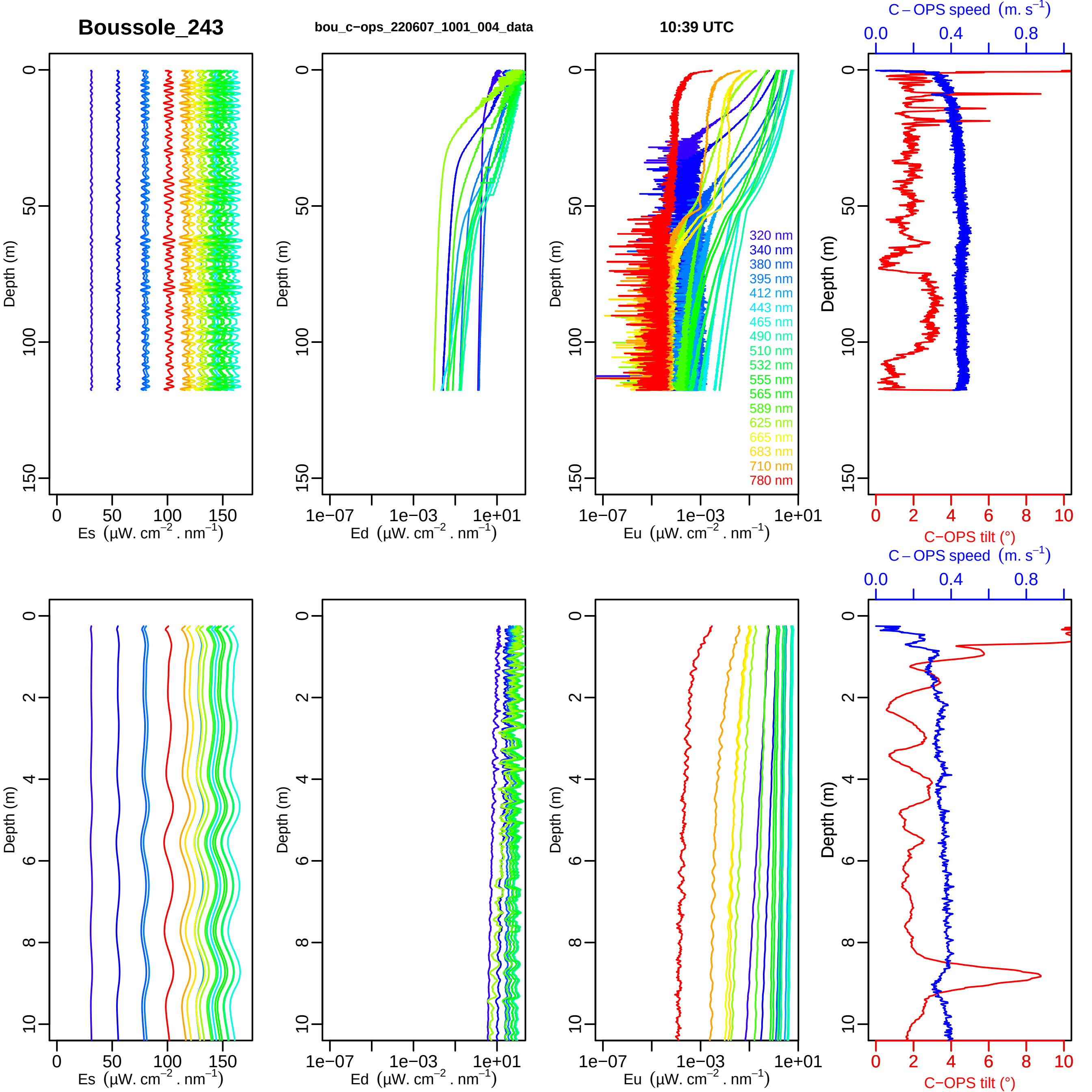
Boussole_241
bou_c−ops_220405_1012_002_data
10:58 UTC
C − OPS speed (m. s−1)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm


Boussole_241
bou_c−ops_220405_1012_003_data
11:10 UTC
C − OPS speed (m. s^{-1})
C−OPS tilt (°)
Depth (m)
Es (µW. cm^{-2} . nm^{-1})
Ed (µW. cm^{-2} . nm^{-1})
Eu (µW. cm^{-2} . nm^{-1})
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

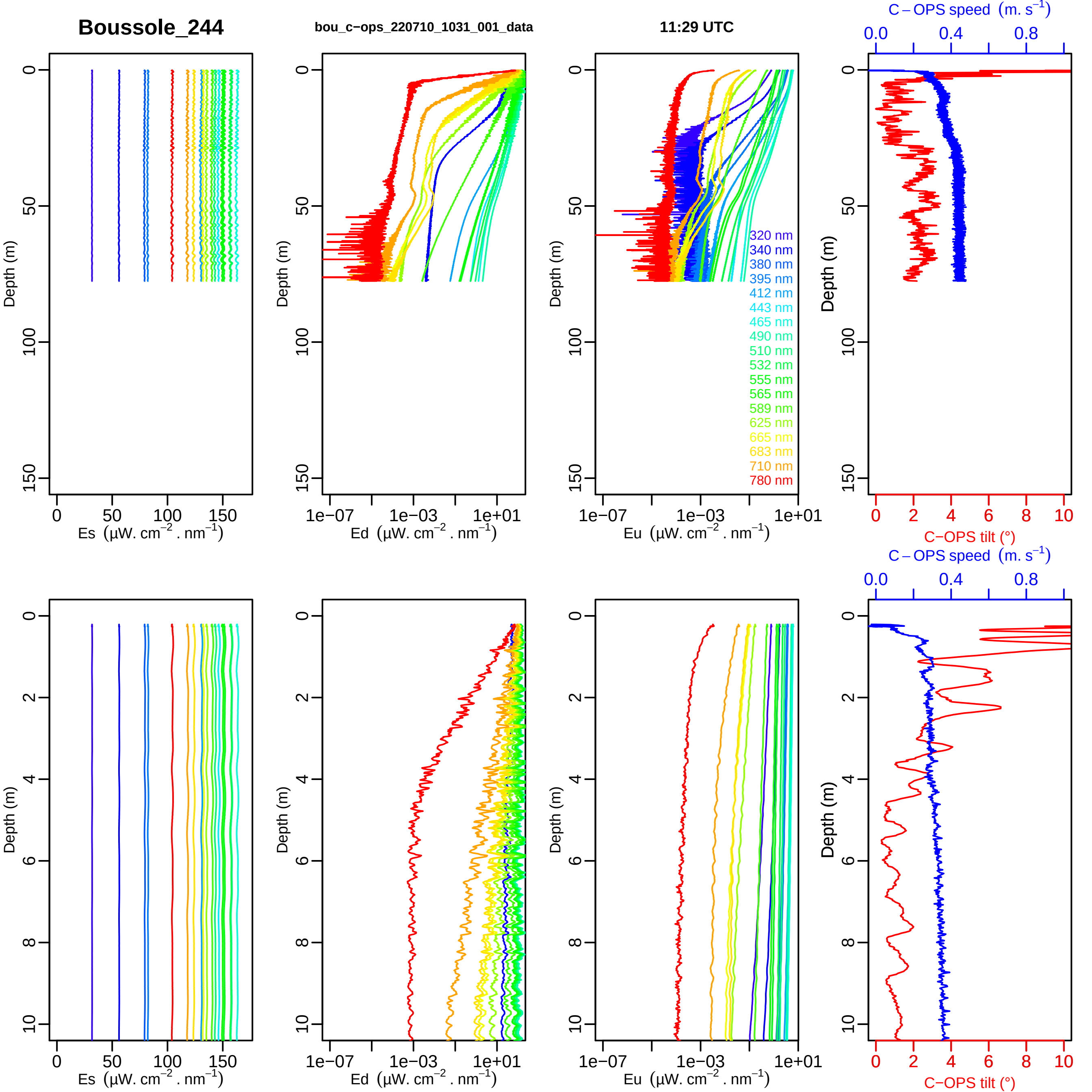


Boussole_243
bou_c−ops_220607_1001_002_data
10:14 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

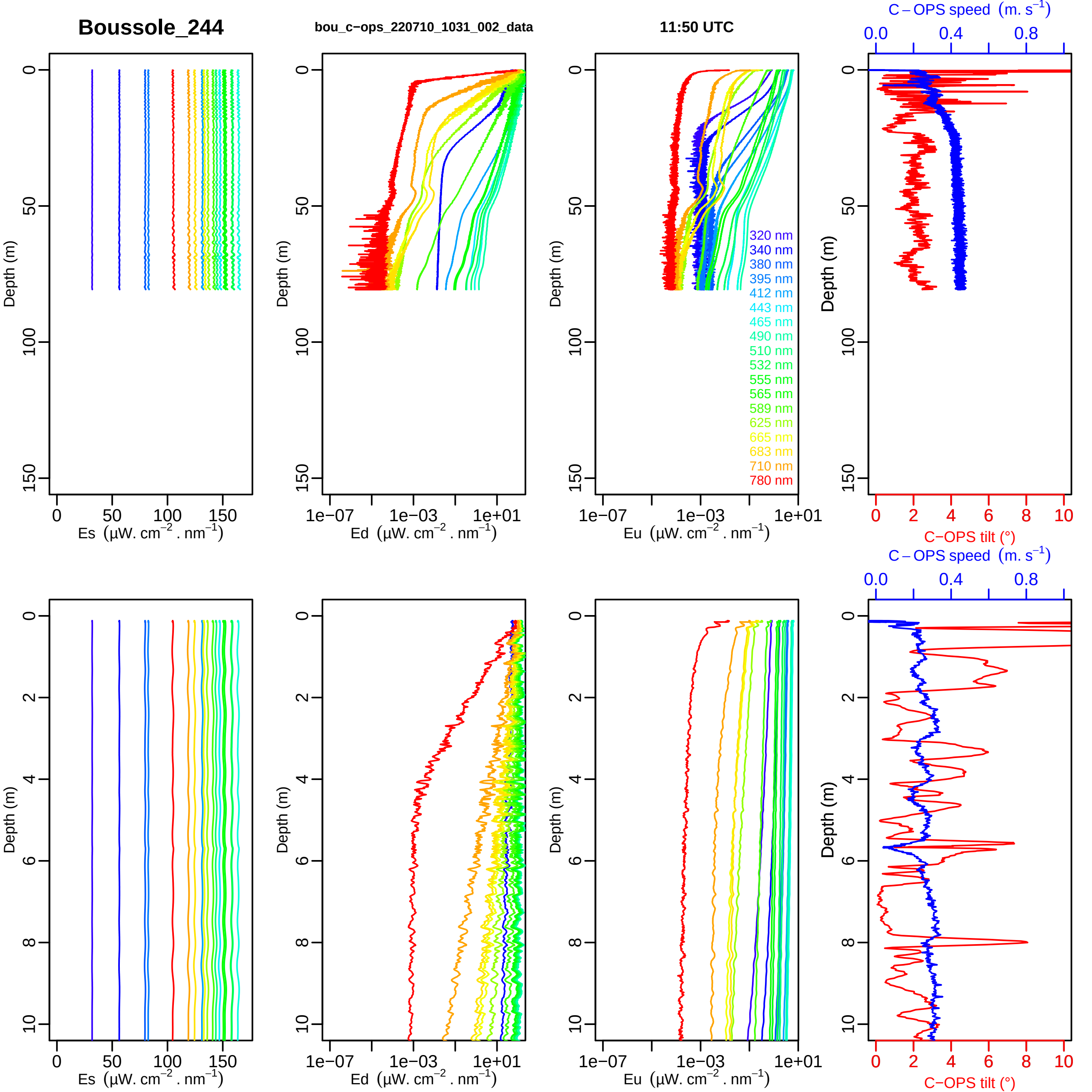

Boussole_243
bou_c−ops_220607_1001_003_data
10:27 UTC
C − OPS speed (m. s^{-1})
Depth (m)
Es (µW. cm^{-2} . nm^{-1})
Ed (µW. cm^{-2} . nm^{-1})
Eu (µW. cm^{-2} . nm^{-1})
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



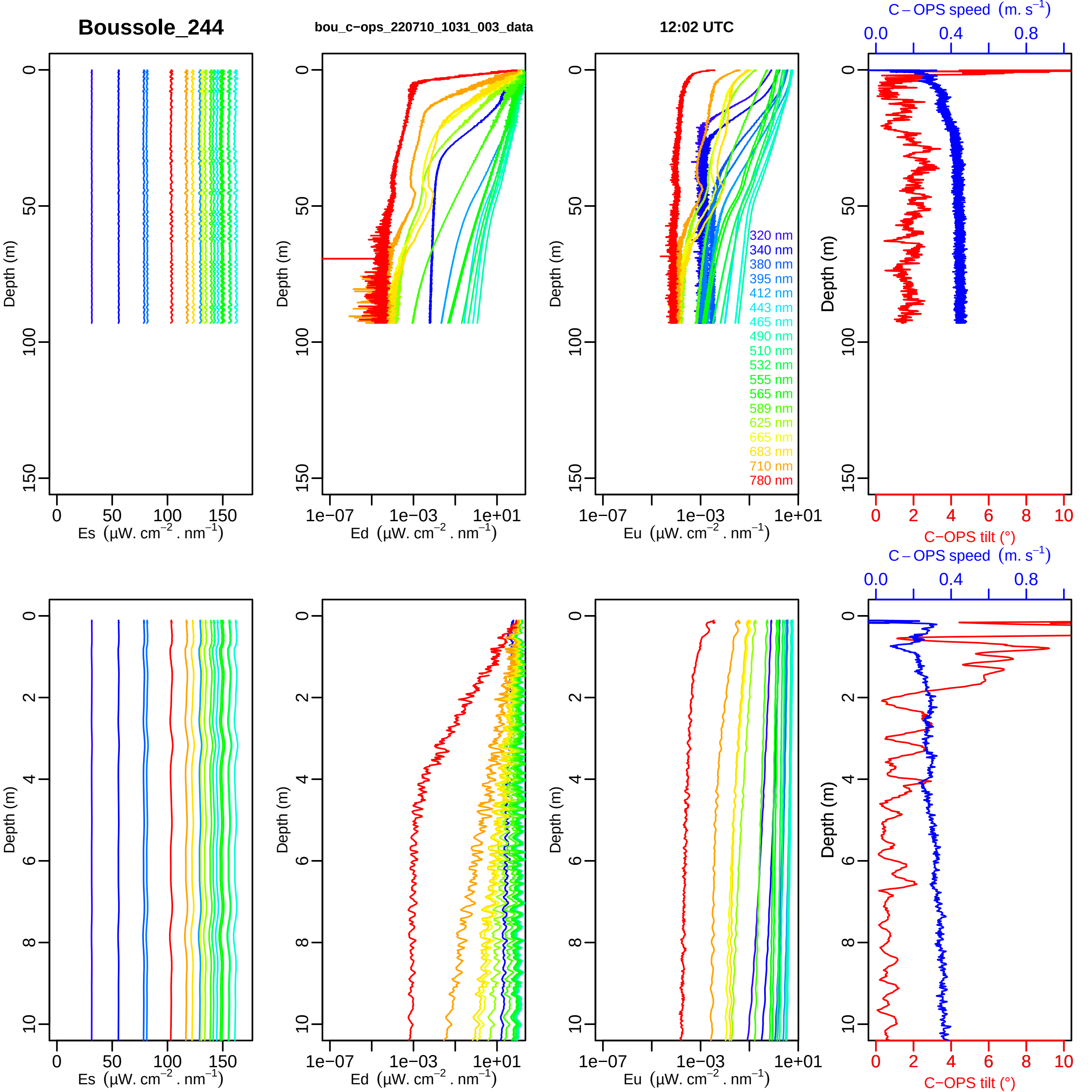
Boussole_243
bou_c−ops_220607_1001_004_data
10:39 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



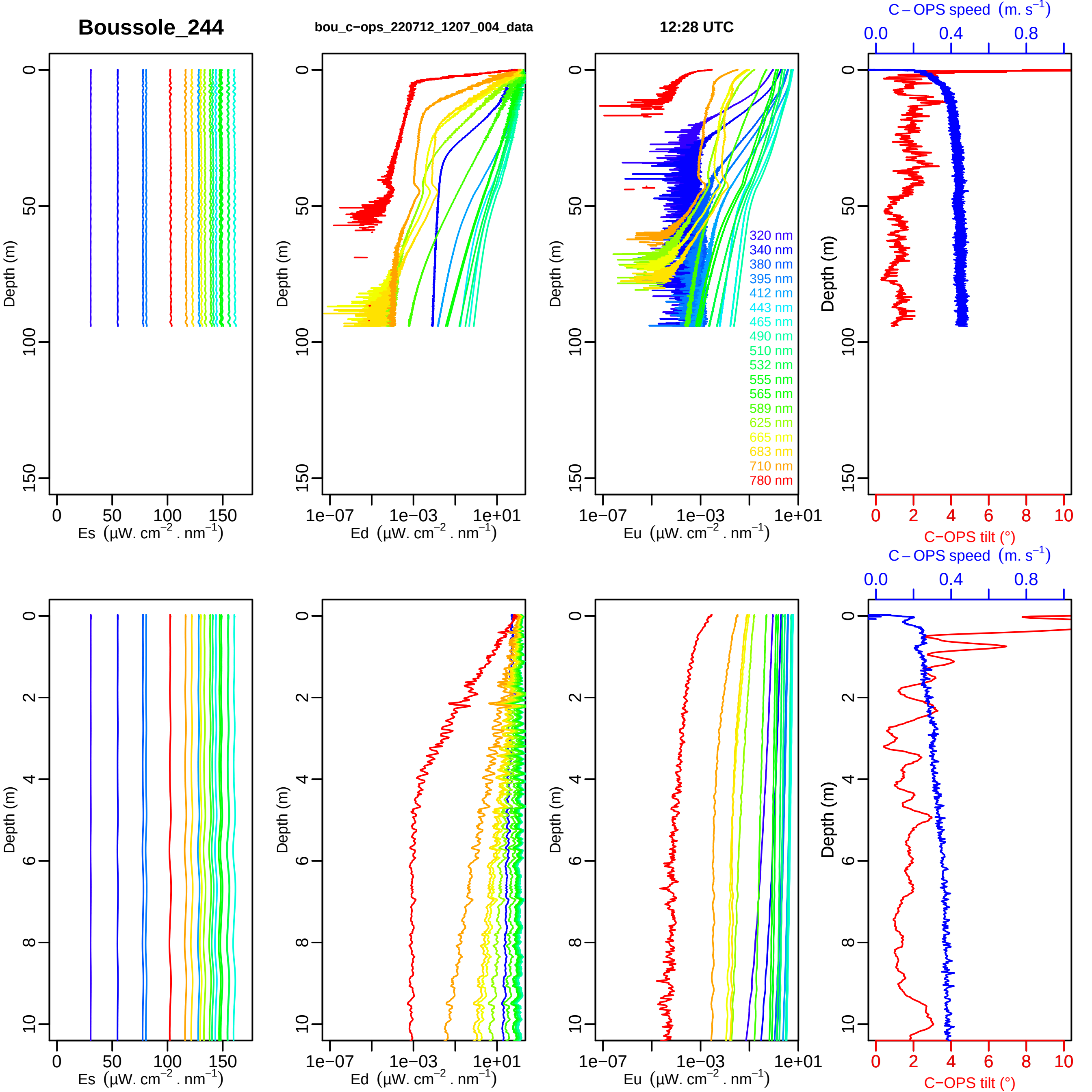
Boussole_244
bou_c−ops_220710_1031_001_data
11:29 UTC
C − OPS speed (m. s−1)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

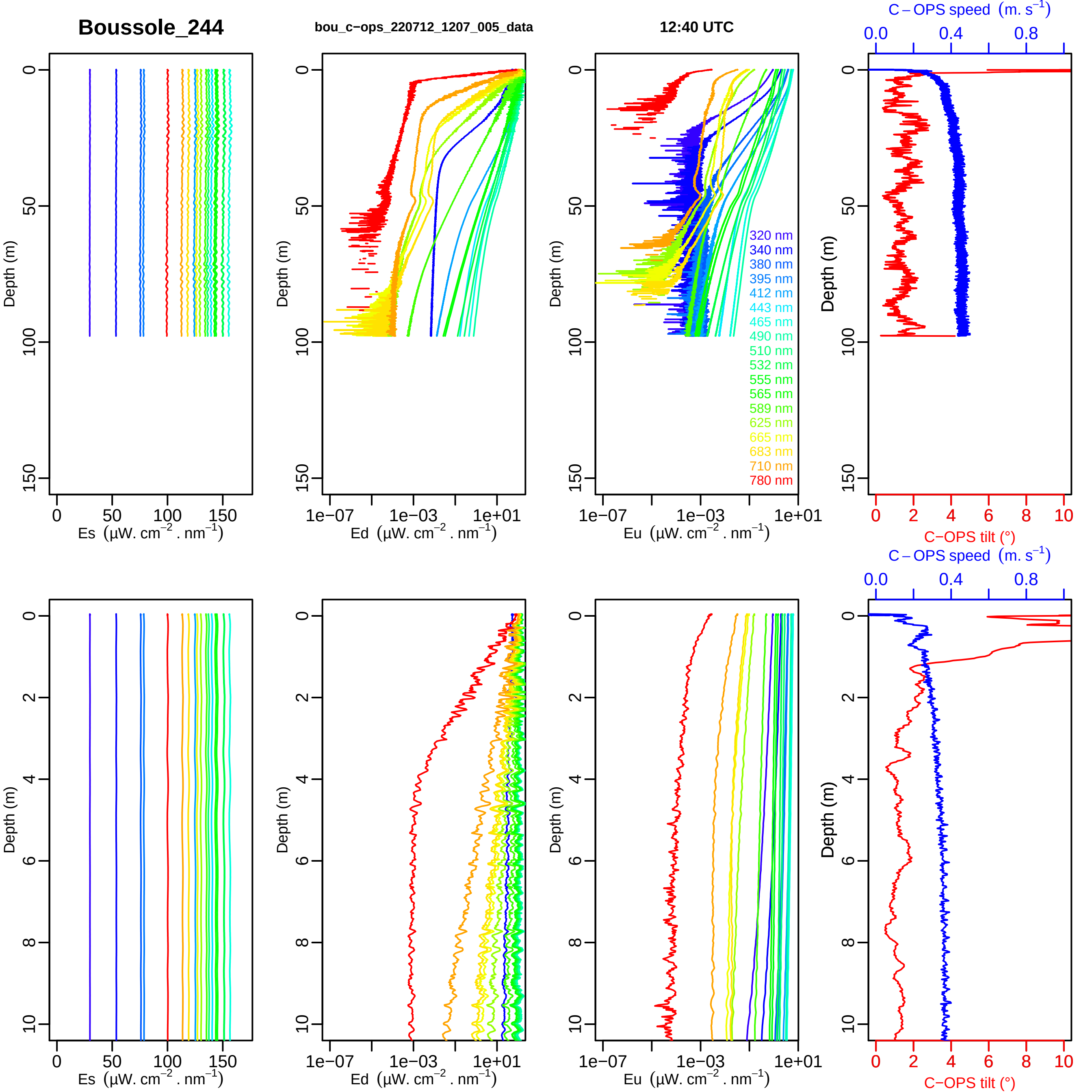


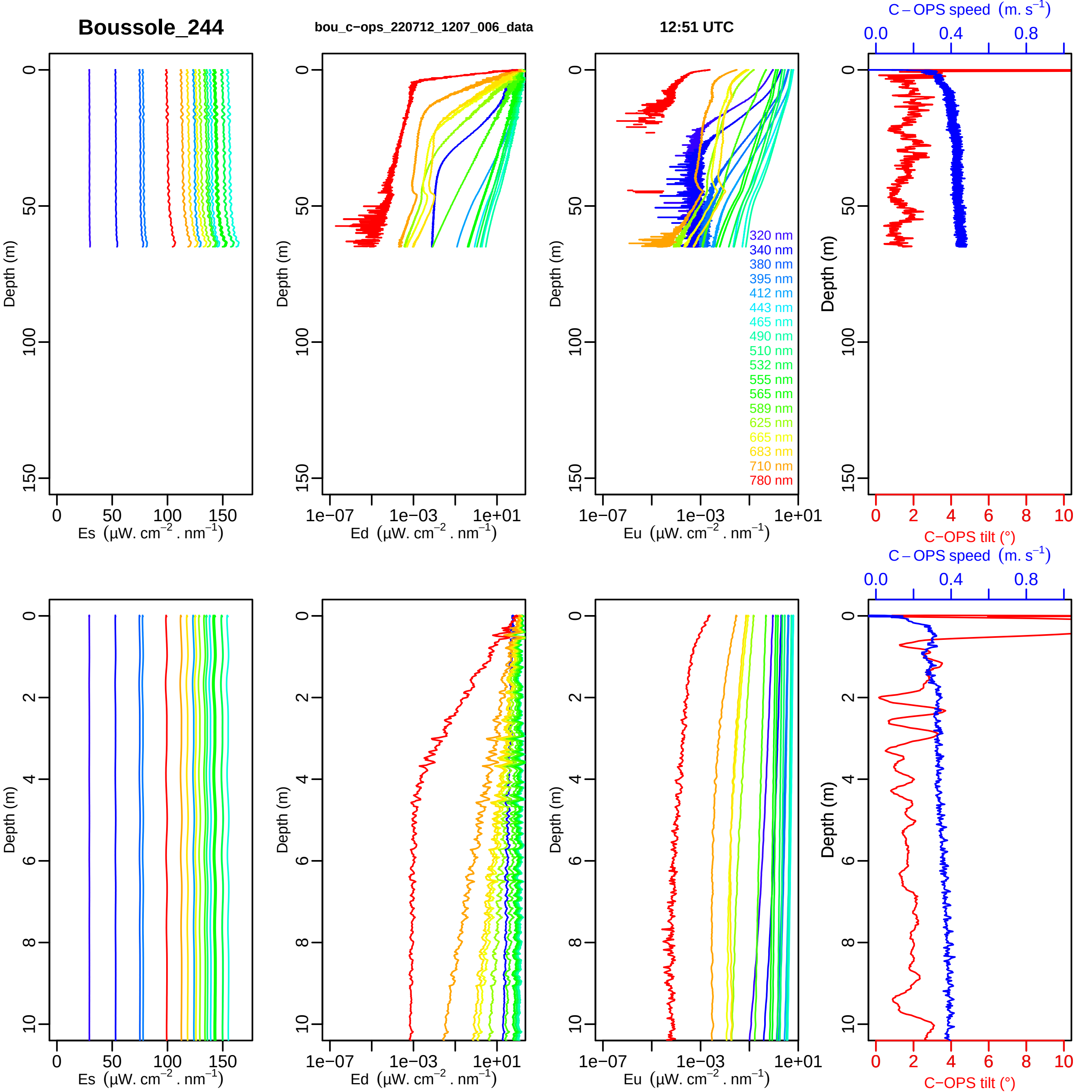
Boussole_244
bou_c-ops_220710_1031_002_data
11:50 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C – OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



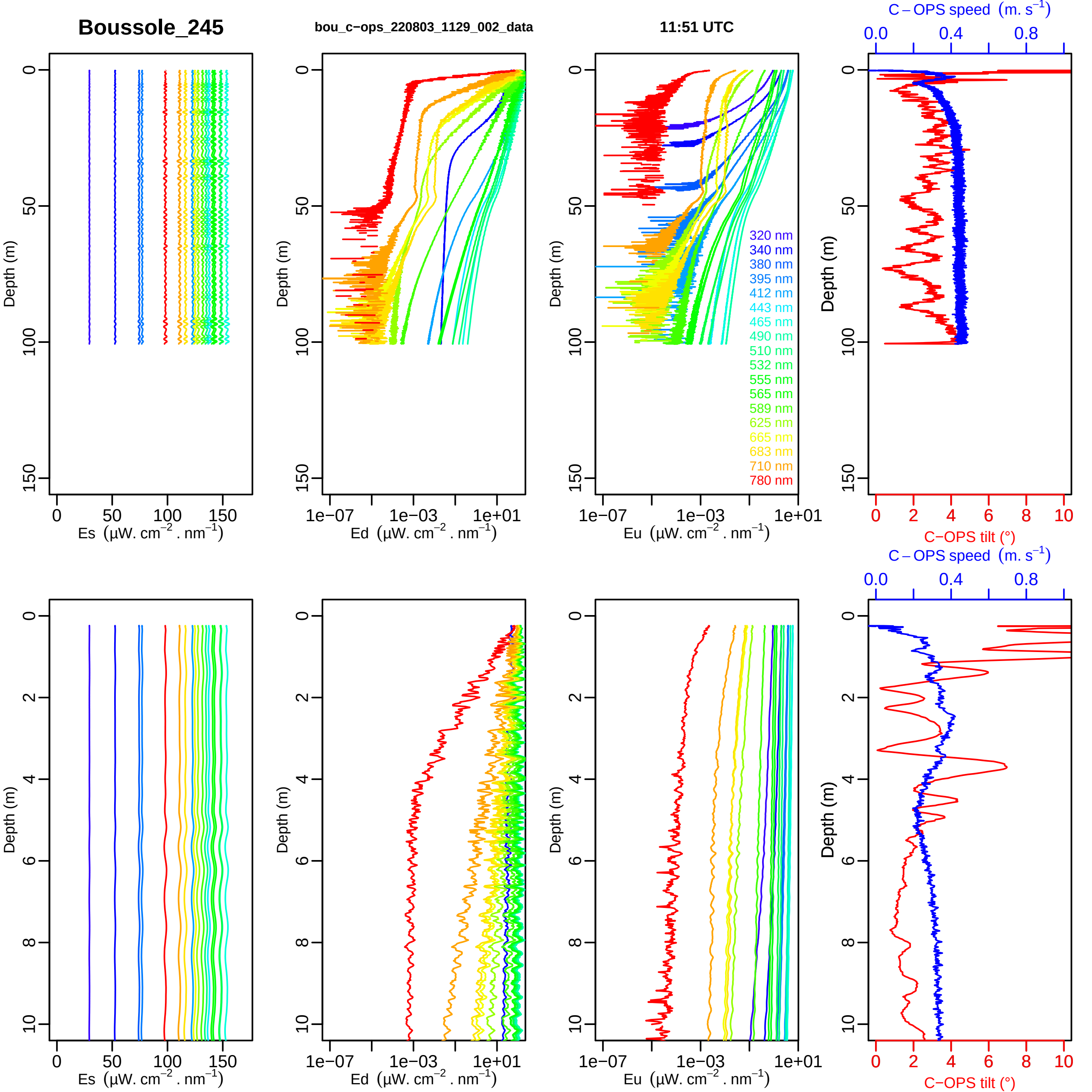
Boussole_244
bou_c−ops_220710_1031_003_data
12:02 UTC
C − OPS speed (m. s−1)
0.0
0.4
0.8
Depth (m)
0
50
100
150
2
4
6
8
10
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
1e−07
1e−03
1e+01
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm


Boussole_244
bou_c−ops_220712_1207_004_data
12:28 UTC
C − OPS speed (m. s−1)
0.0
0.4
0.8
Depth (m)
0
50
100
150
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
1e−07
1e−03
1e+01
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm
C−OPS tilt (°)
0
2
4
6
8
10

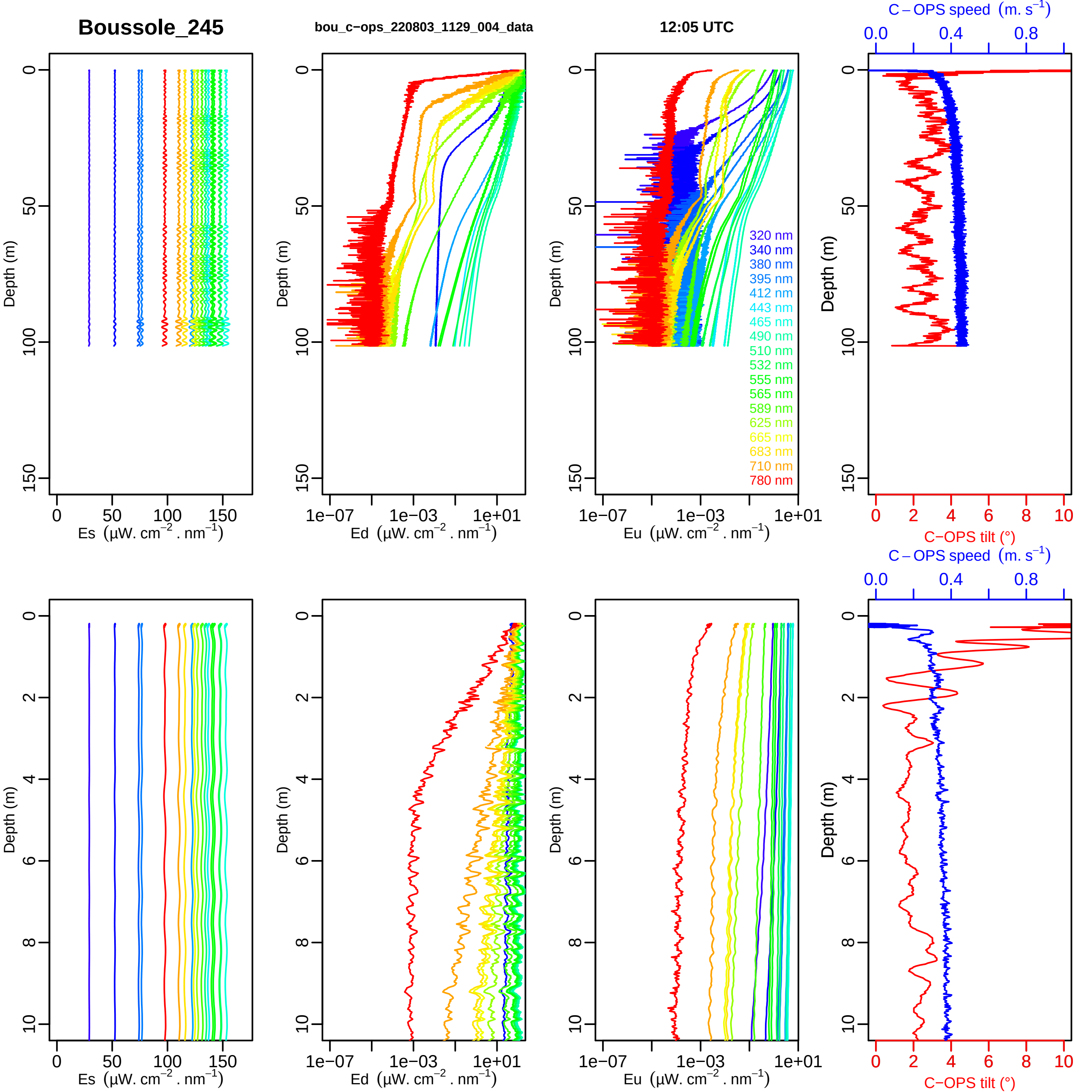

Boussole_244
bou_c−ops_220712_1207_005_data
12:40 UTC
C − OPS speed (m. s−1)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



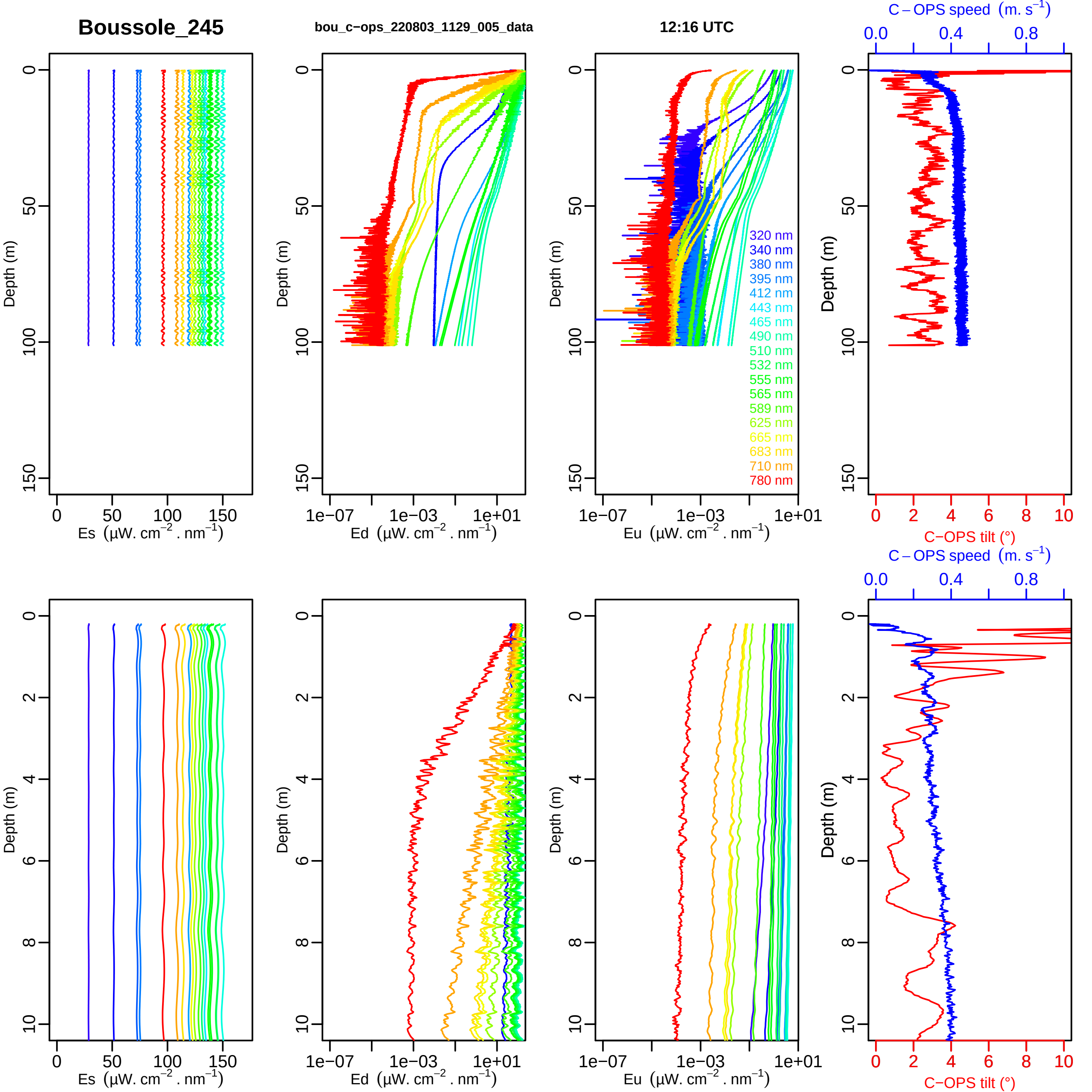
Boussole_244
bou_c−ops_220712_1207_006_data
12:51 UTC
C − OPS speed (m. s−1)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



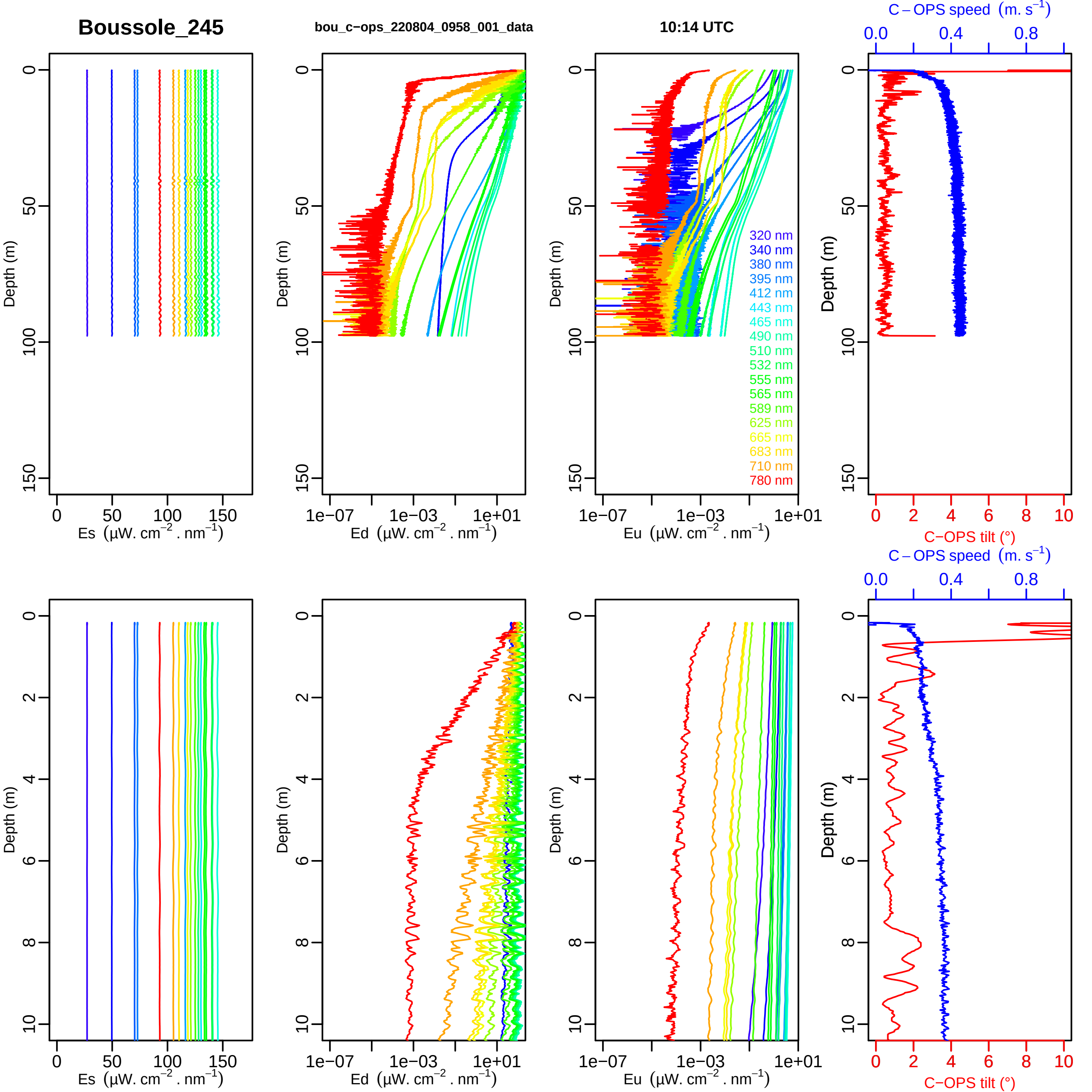
Boussole_245
bou_c−ops_220803_1129_002_data
11:51 UTC
C − OPS speed (m. s−1)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



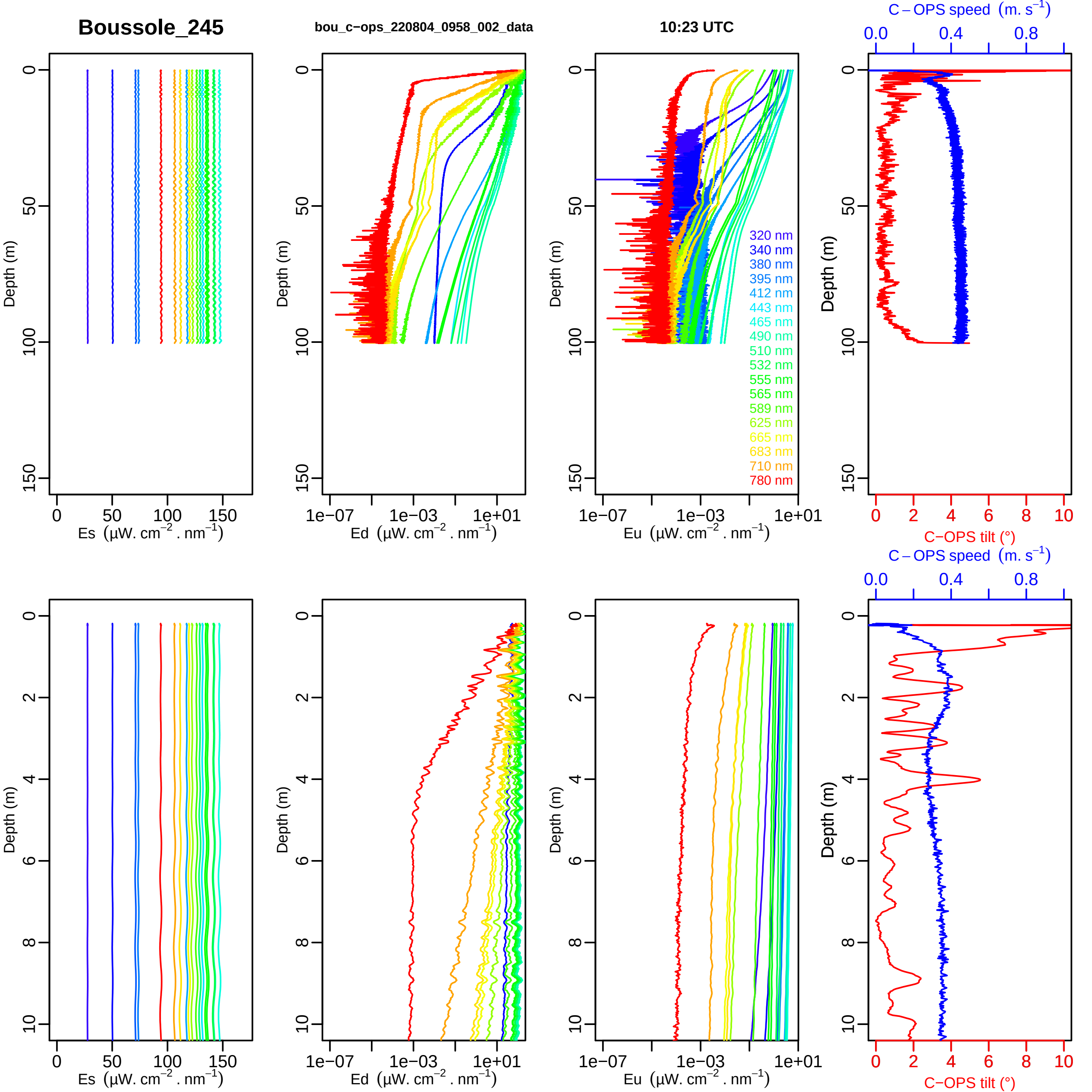
Boussole_245
bou_c-ops_220803_1129_004_data
12:05 UTC
C – OPS speed (m. s^{-1})
Depth (m)
Es (µW. cm^{-2} . nm^{-1})
Ed (µW. cm^{-2} . nm^{-1})
Eu (µW. cm^{-2} . nm^{-1})
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



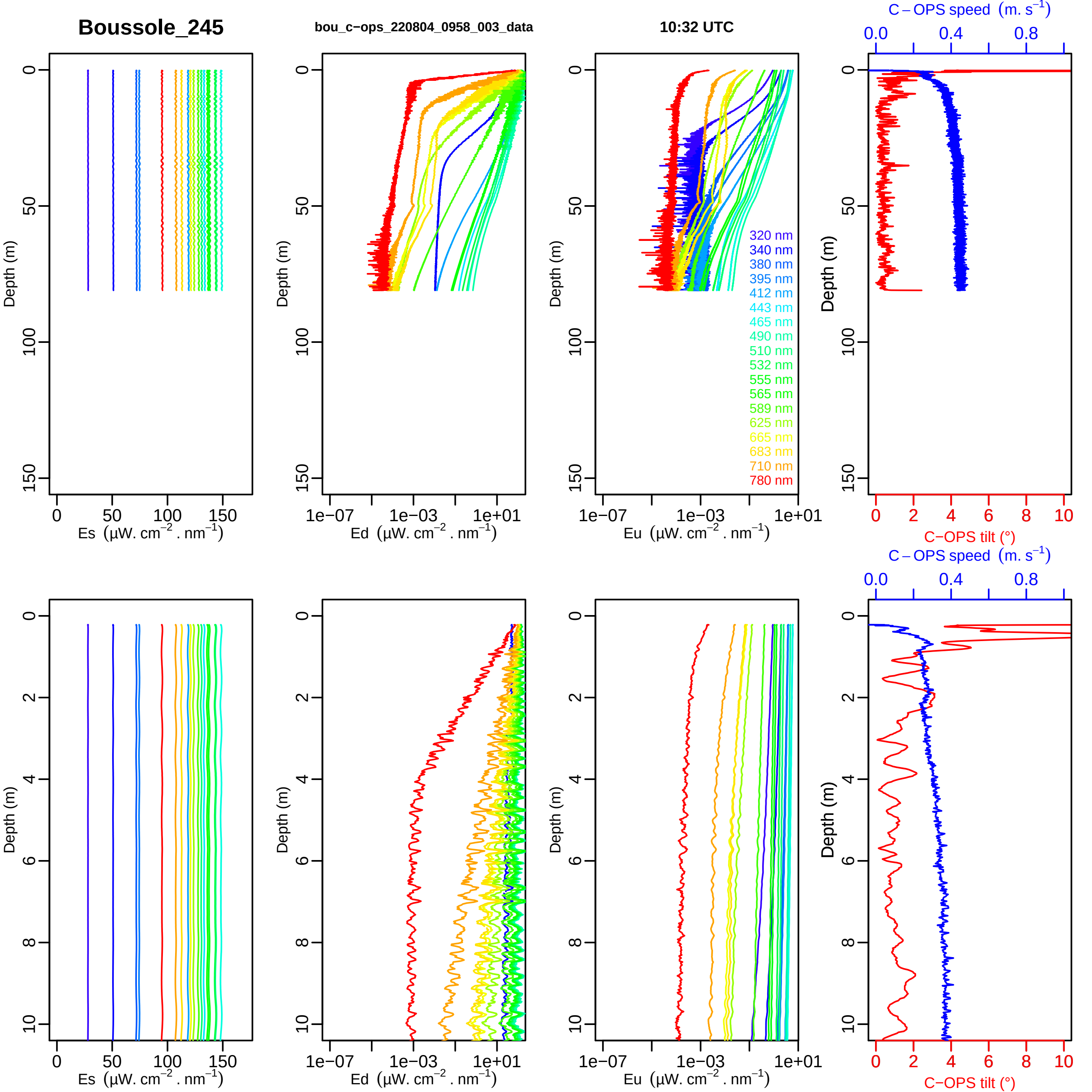
Boussole_245
bou_c-ops_220803_1129_005_data
12:16 UTC
C – OPS speed (m. s−1)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



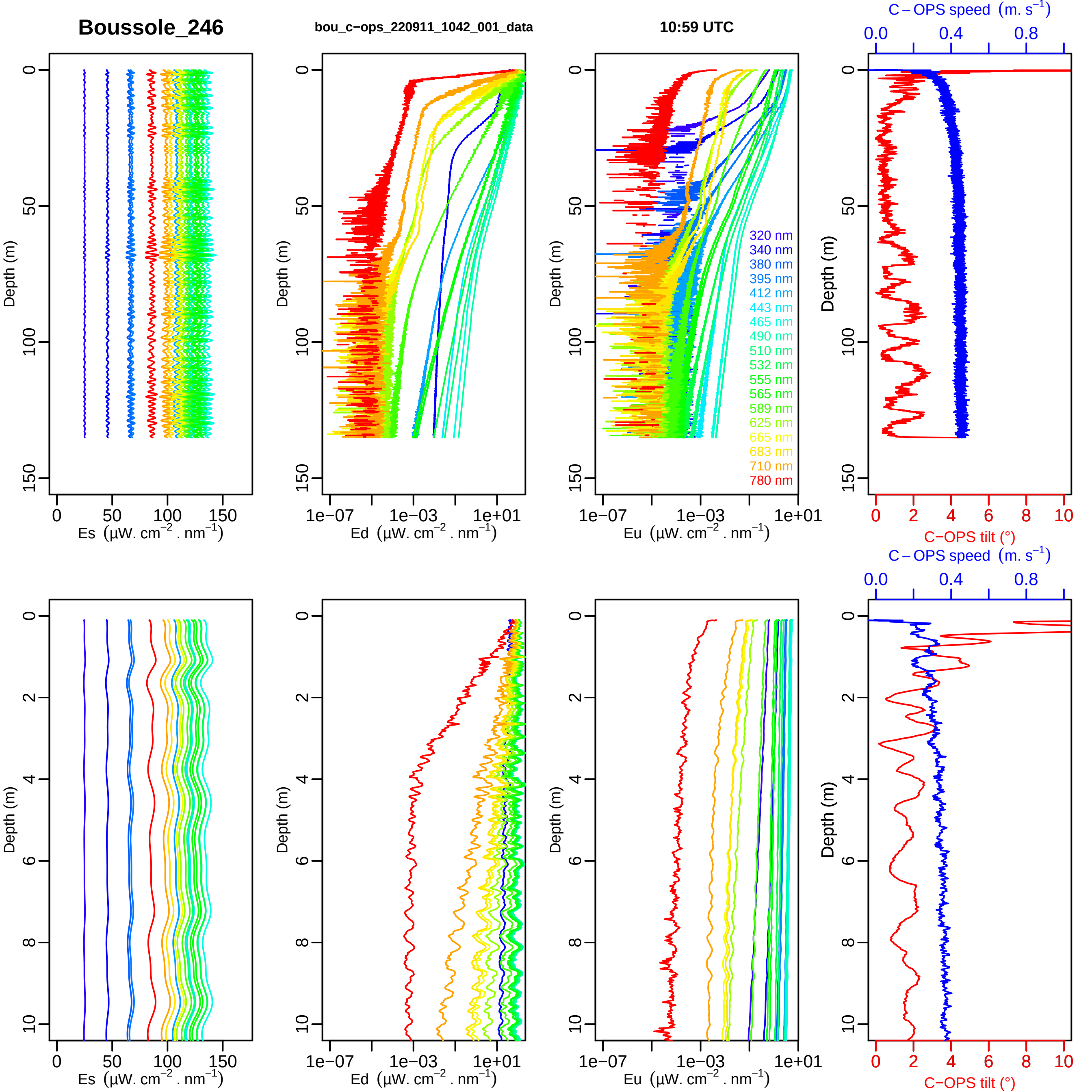
Boussole_245
bou_c−ops_220804_0958_001_data
10:14 UTC
C − OPS speed (m. s^−1)
Depth (m)
Es (µW. cm^−2 . nm^−1)
Ed (µW. cm^−2 . nm^−1)
Eu (µW. cm^−2 . nm^−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



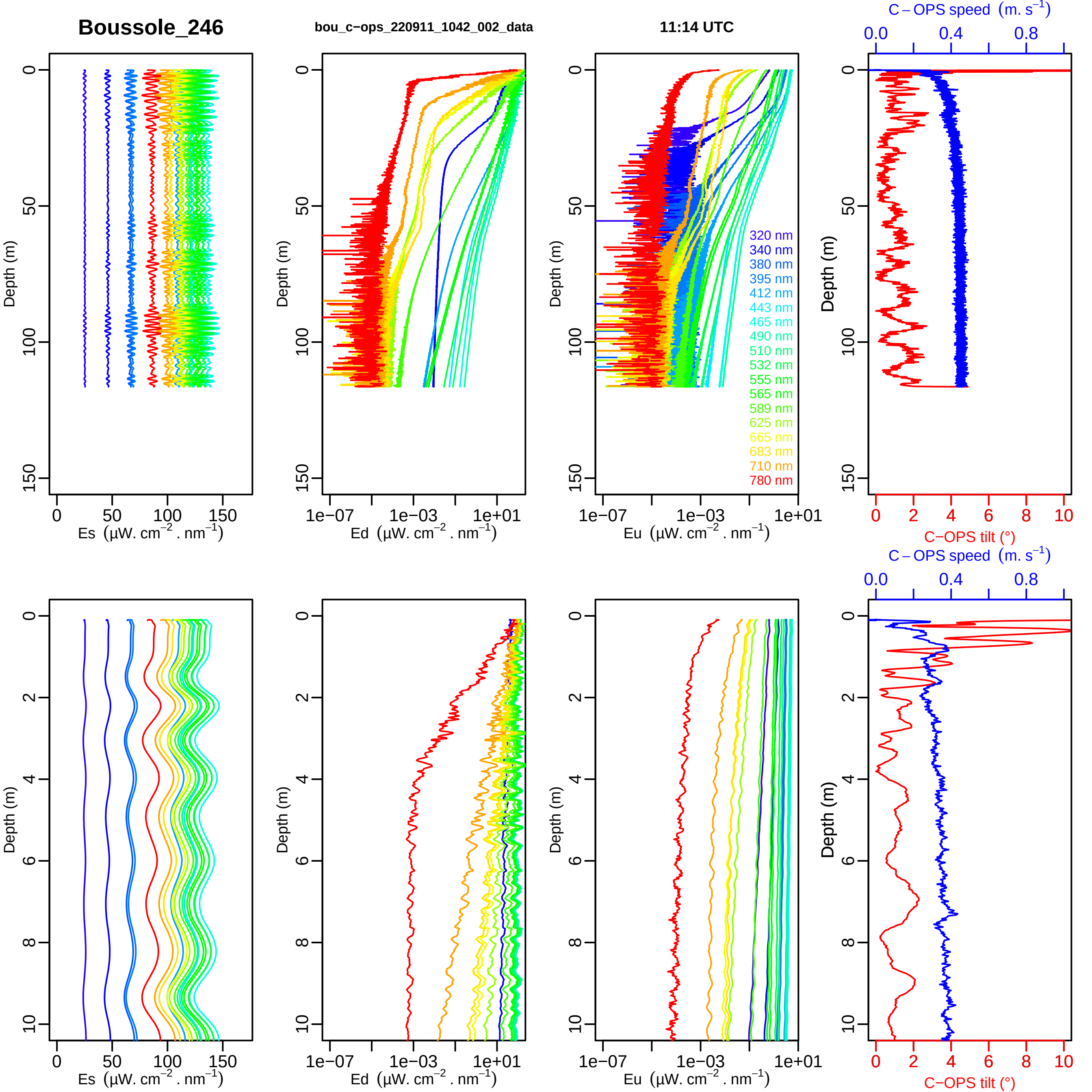
Boussole_245
bou_c−ops_220804_0958_002_data
10:23 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

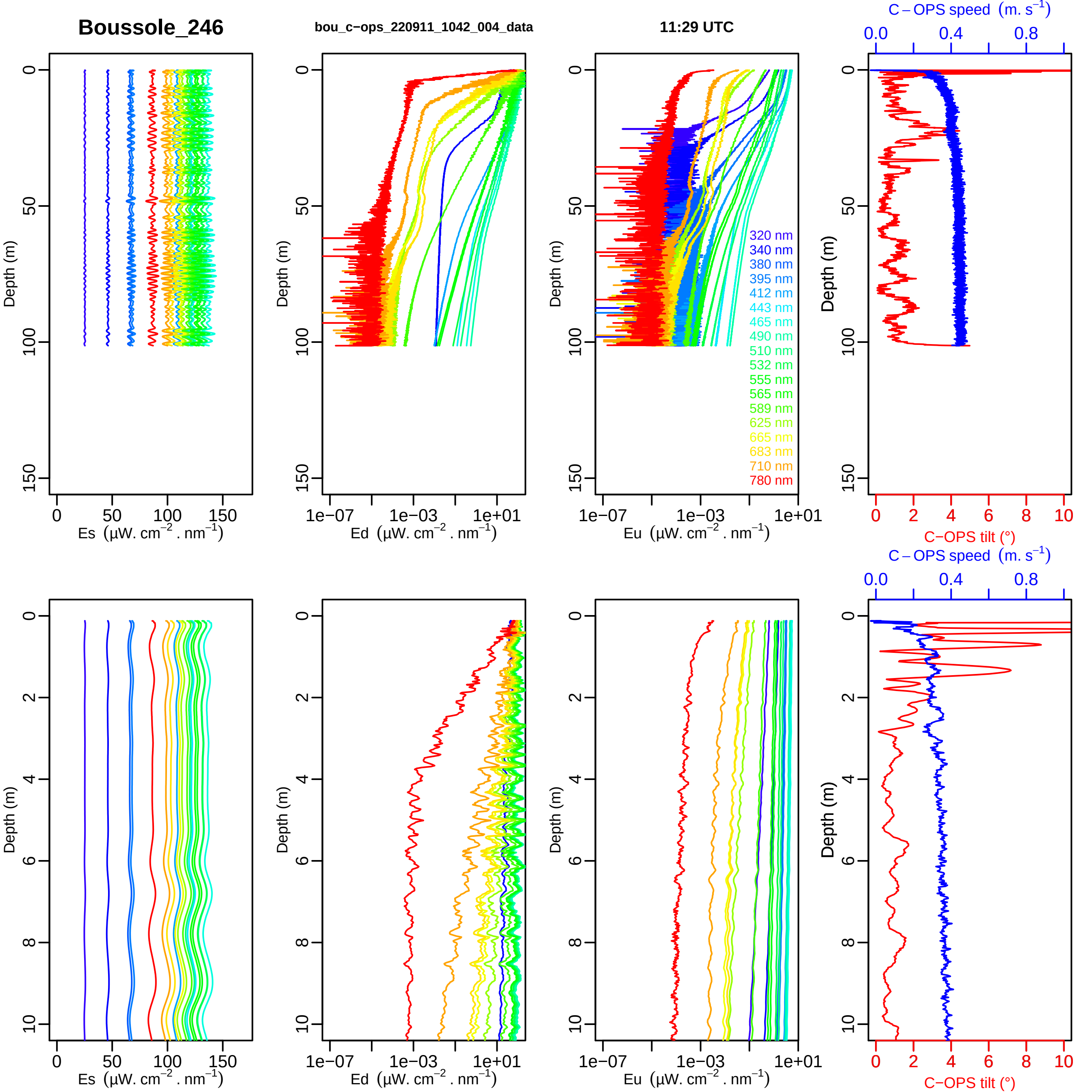


Boussole_245
bou_c−ops_220804_0958_003_data
10:32 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



Boussole_246
bou_c−ops_220911_1042_001_data
10:59 UTC
C − OPS speed (m. s−1)
C−OPS tilt (°)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm


Boussole_246
bou_c−ops_220911_1042_002_data
11:14 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm


Boussole_246
bou_c−ops_220911_1042_004_data
11:29 UTC
C − OPS speed (m. s−1)
C−OPS tilt (°)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
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532 nm
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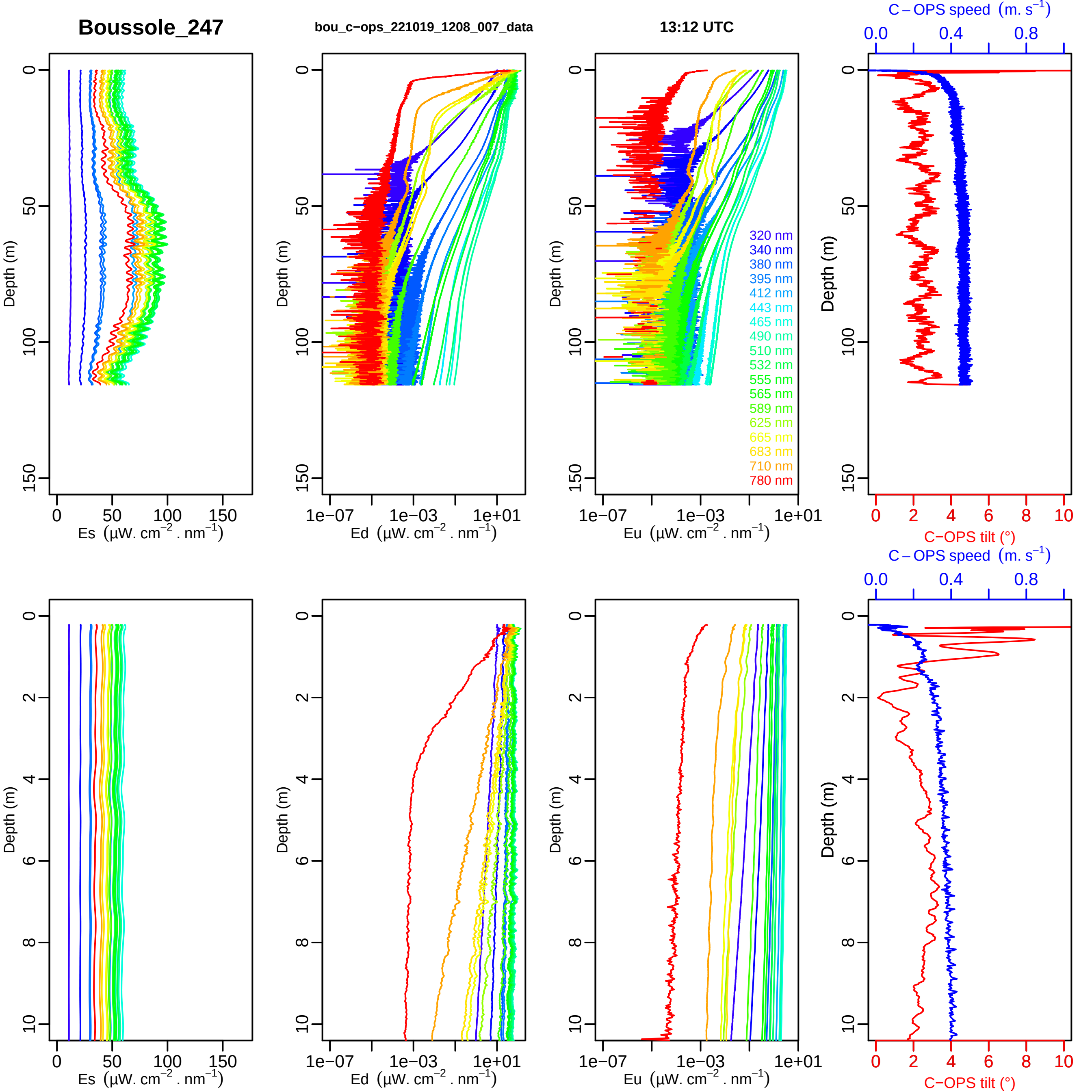
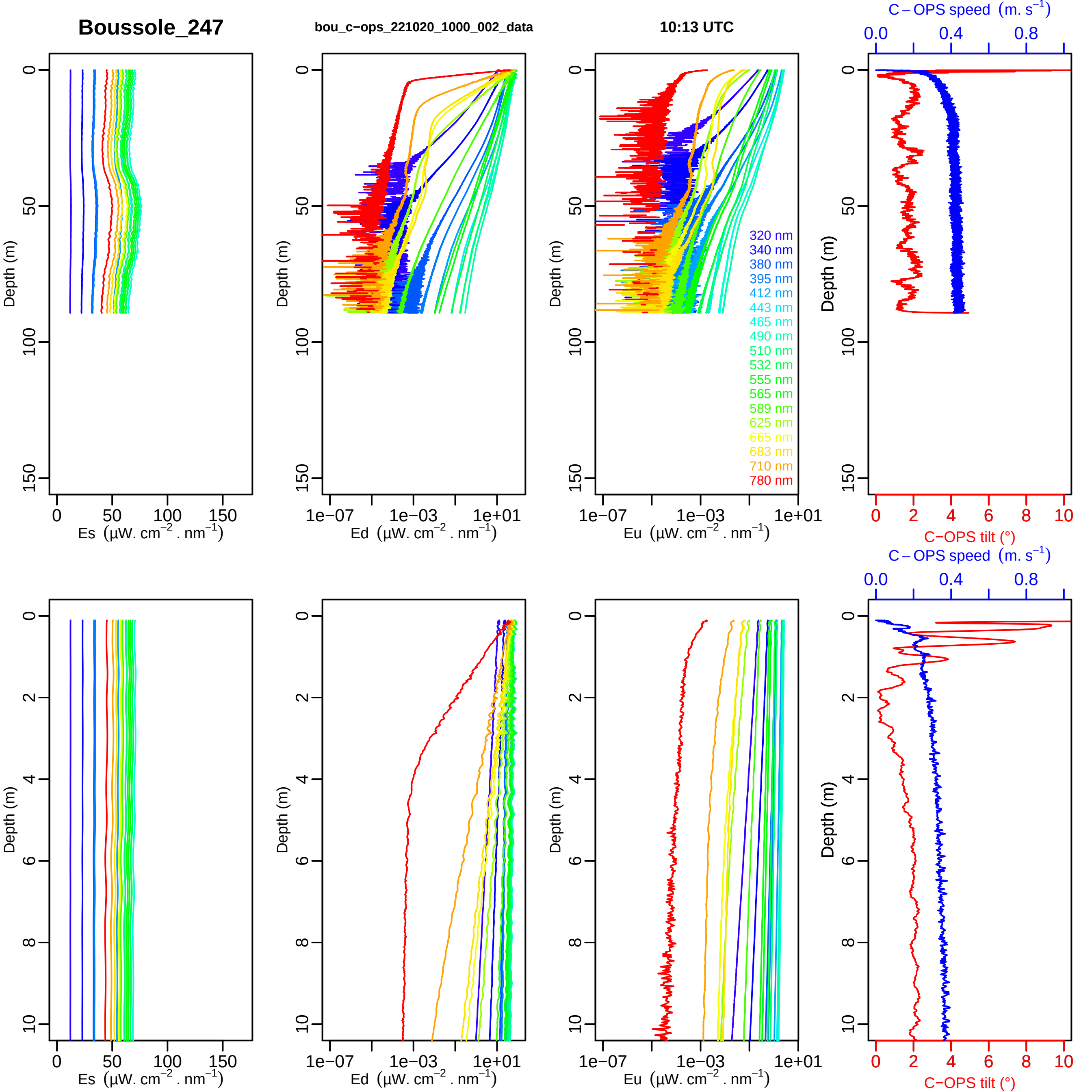
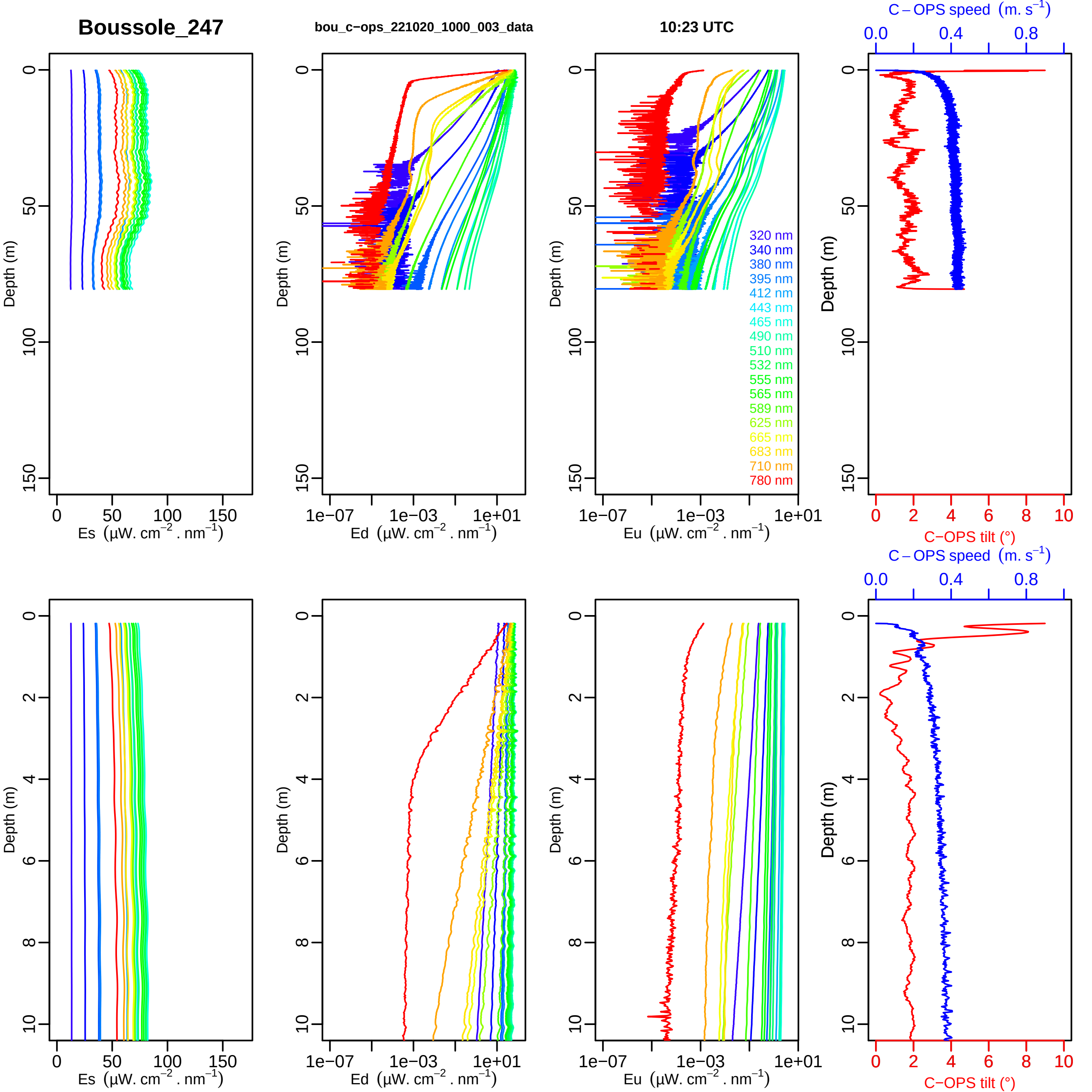
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



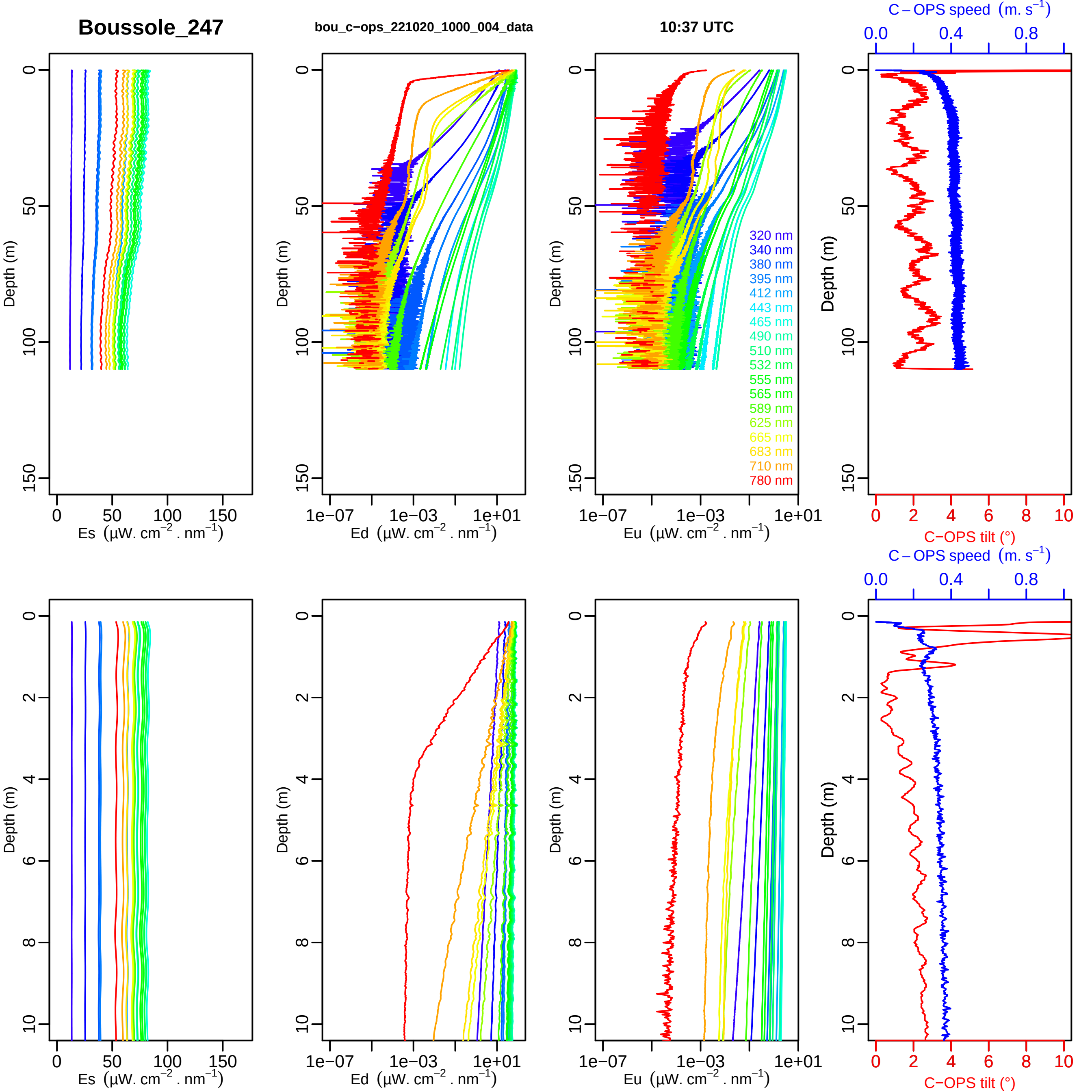
Boussole_247
bou_c−ops_221019_1208_007_data
13:12 UTC
C − OPS speed (m. s^{-1})
Depth (m)
Es (µW. cm^{-2} . nm^{-1})
Ed (µW. cm^{-2} . nm^{-1})
Eu (µW. cm^{-2} . nm^{-1})
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



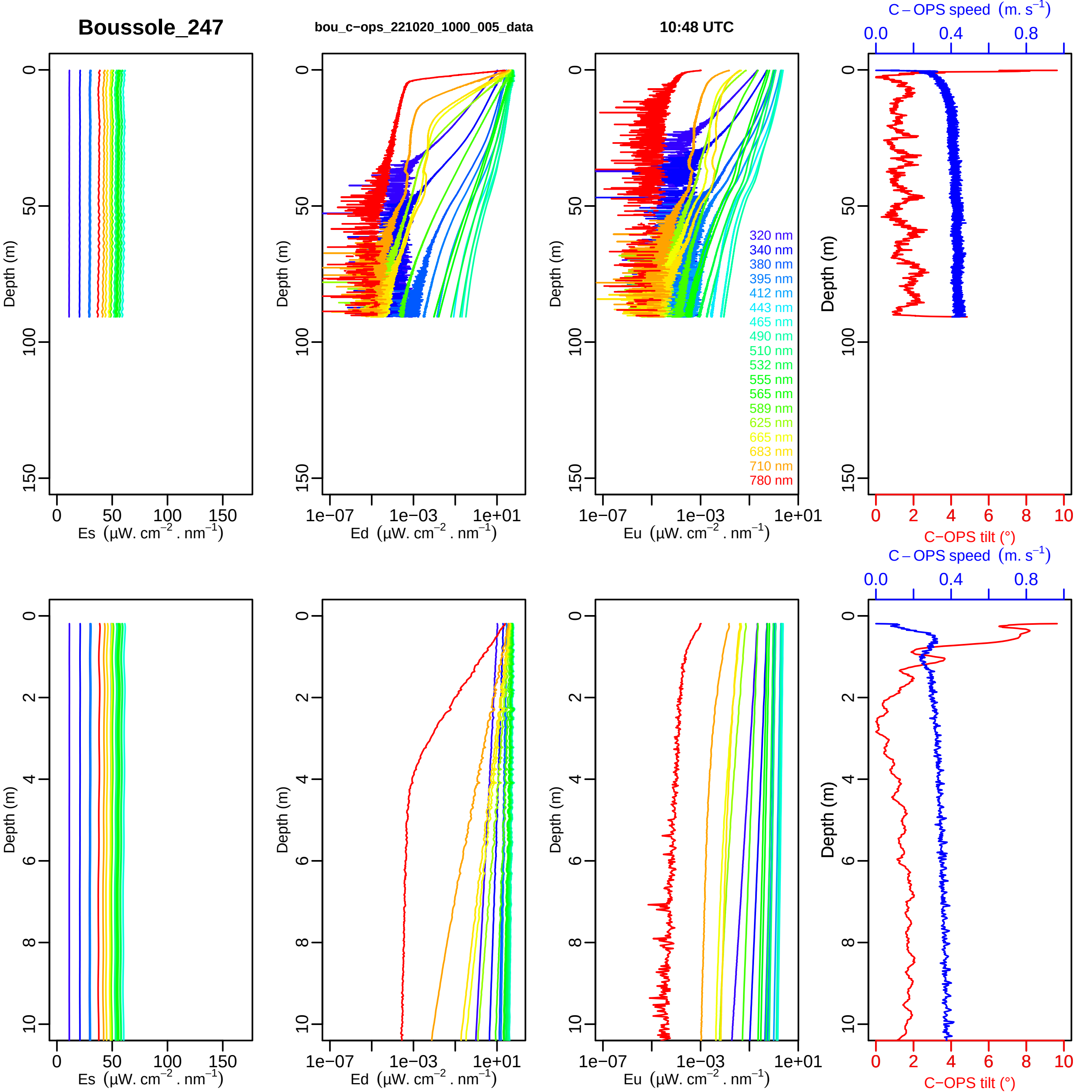
Boussole_247
bou_c−ops_221020_1000_002_data
10:13 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



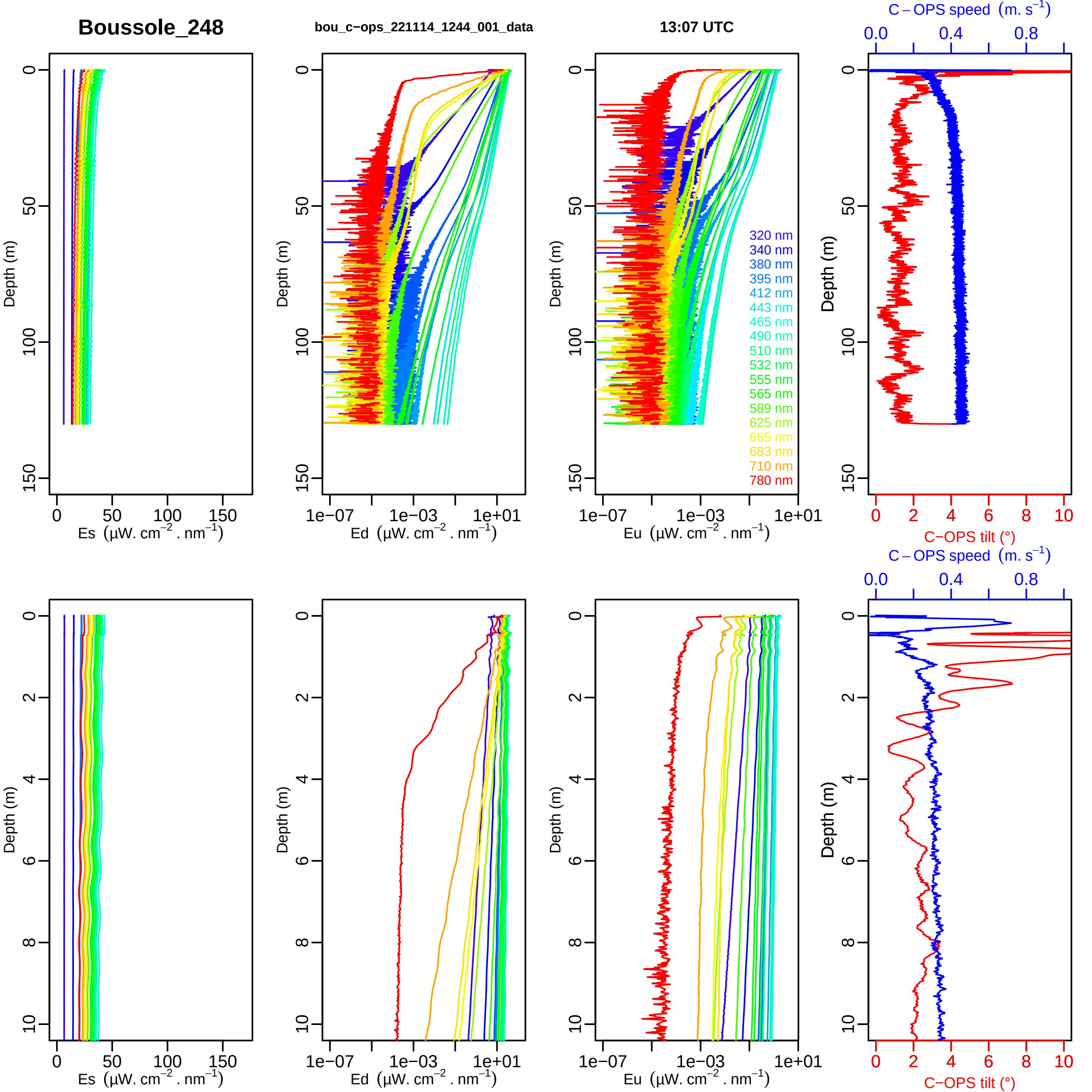
Boussole_247
bou_c−ops_221020_1000_003_data
10:23 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



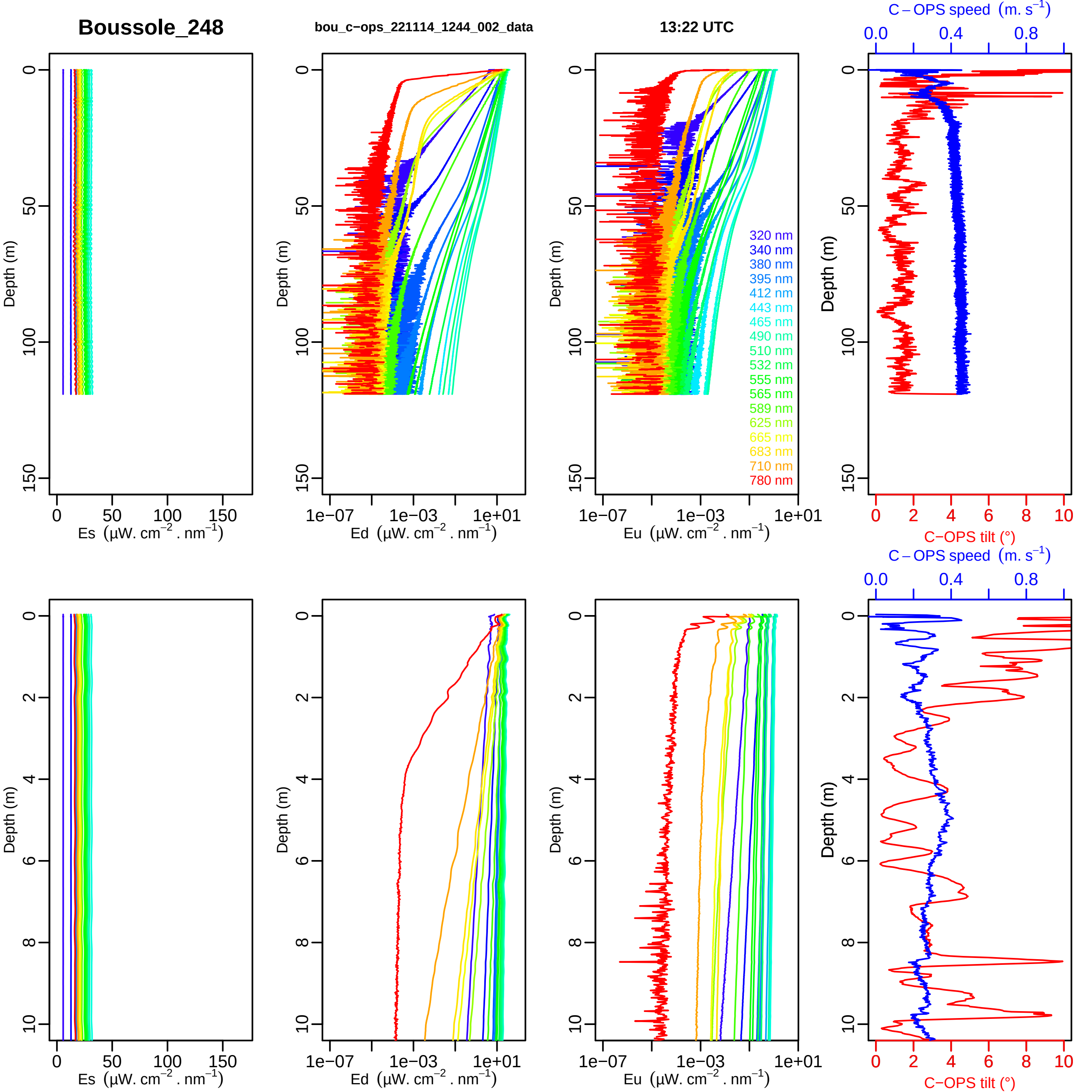
Boussole_247
bou_c−ops_221020_1000_004_data
10:37 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



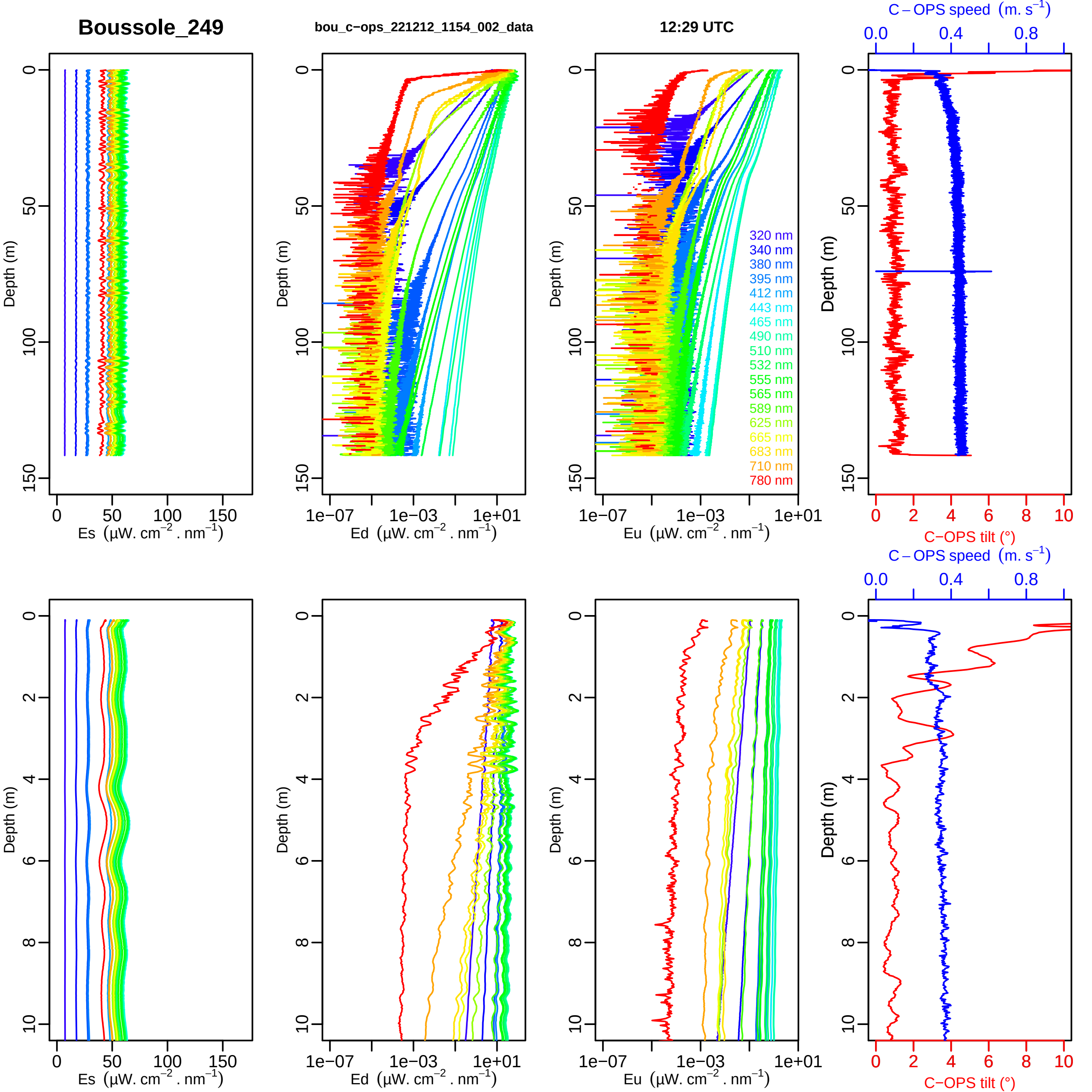
Boussole_247
bou_c−ops_221020_1000_005_data
10:48 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

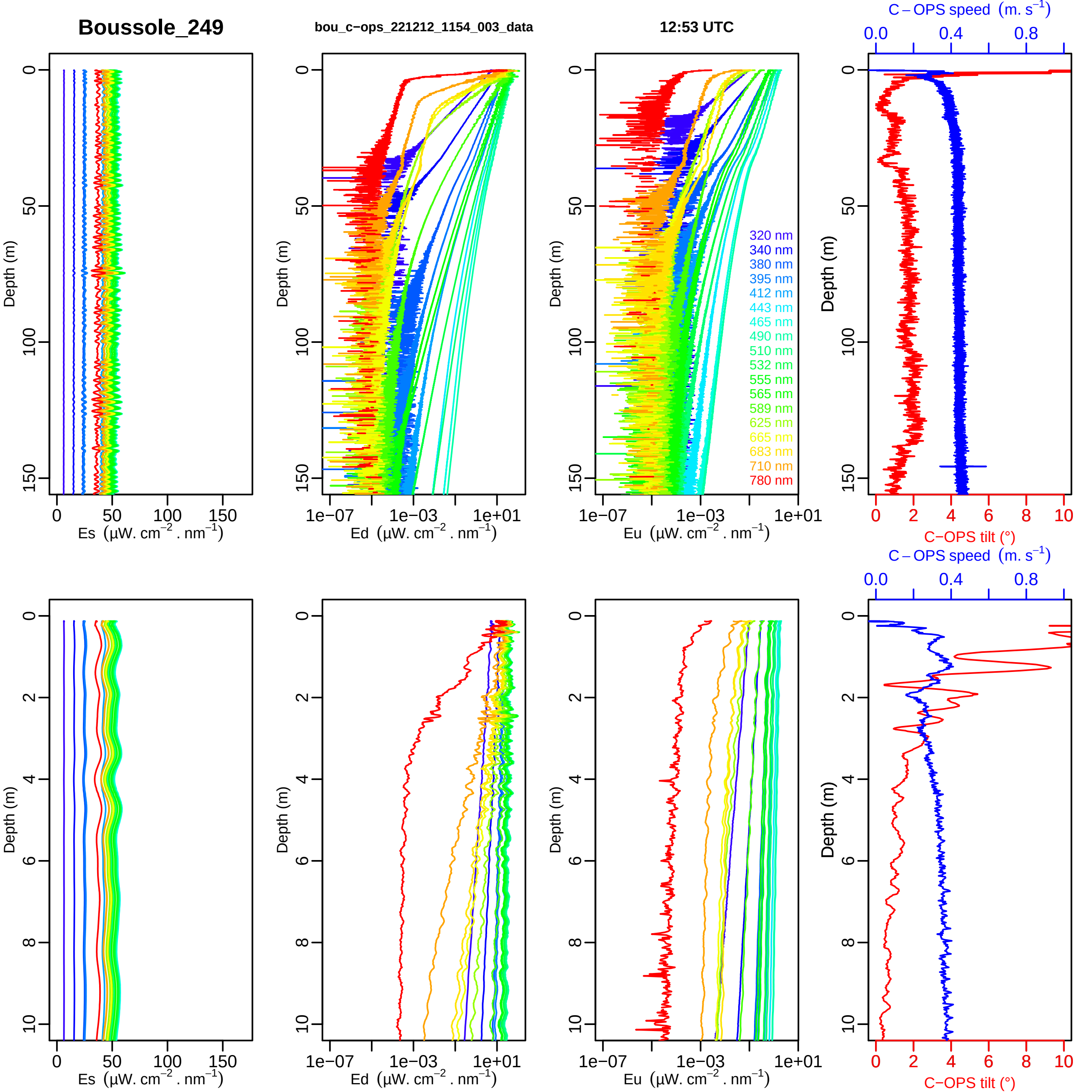


Boussole_248
bou_c−ops_221114_1244_001_data
13:07 UTC
C − OPS speed (m. s−1)
C−OPS tilt (°)
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

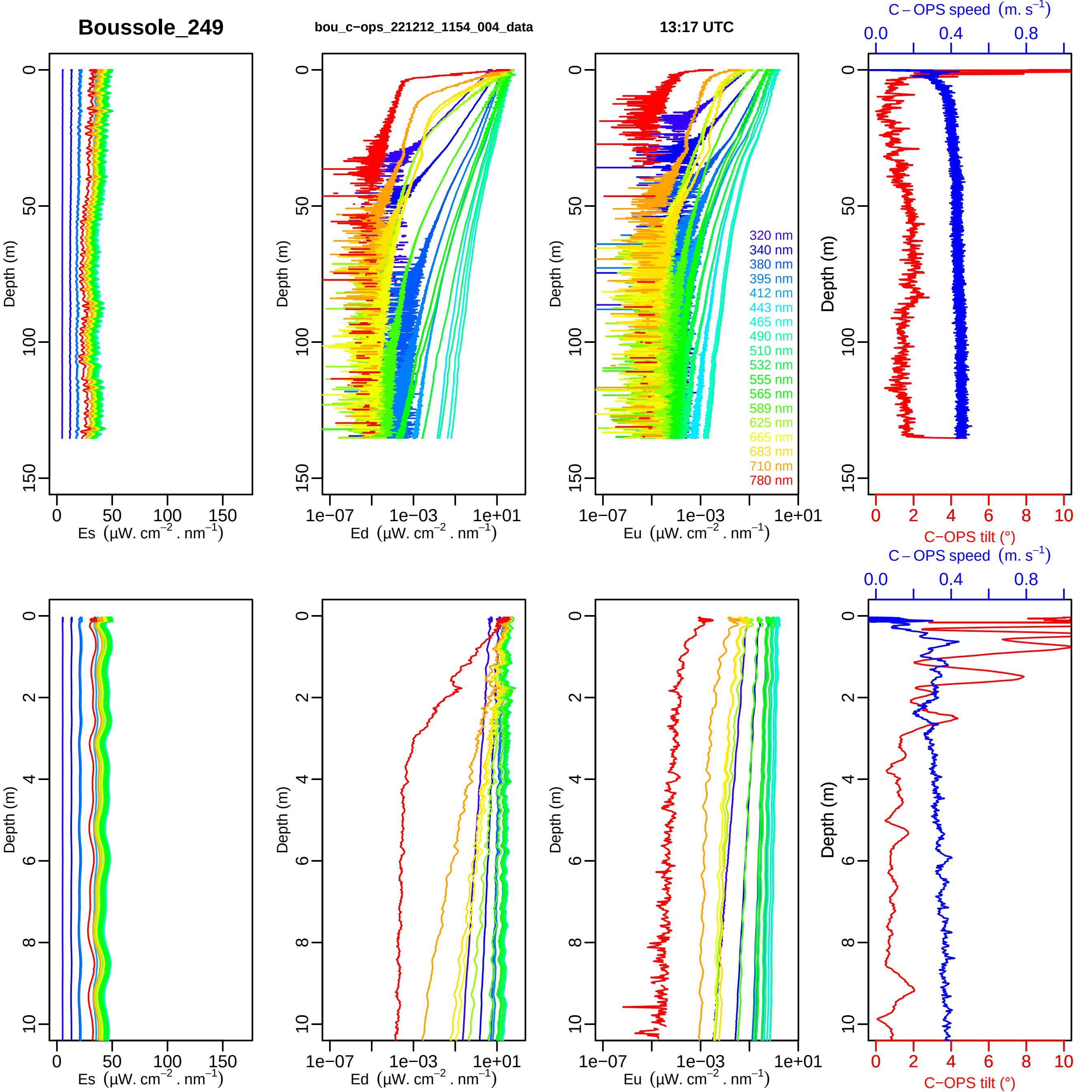


Boussole_248
bou_c-ops_221114_1244_002_data
13:22 UTC
C – OPS speed (m. s⁻¹)
Depth (m)
Es (µW. cm⁻² . nm⁻¹)
Ed (µW. cm⁻² . nm⁻¹)
Eu (µW. cm⁻² . nm⁻¹)
C–OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm


Boussole_249
bou_c−ops_221212_1154_002_data
12:29 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



Boussole_249
bou_c−ops_221212_1154_003_data
12:53 UTC
Depth (m)
Es (µW. cm−2 . nm−1)
Ed (µW. cm−2 . nm−1)
Eu (µW. cm−2 . nm−1)
C − OPS speed (m. s−1)
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm



Boussole_249
bou_c−ops_221212_1154_004_data
13:17 UTC
C − OPS speed (m. s^{-1})
Depth (m)
Es (µW. cm^{-2} . nm^{-1})
Ed (µW. cm^{-2} . nm^{-1})
Eu (µW. cm^{-2} . nm^{-1})
C−OPS tilt (°)
320 nm
340 nm
380 nm
395 nm
412 nm
443 nm
465 nm
490 nm
510 nm
532 nm
555 nm
565 nm
589 nm
625 nm
665 nm
683 nm
710 nm
780 nm

Problems identified during the cruises

BOUSSOLE #238
No problems

BOUSSOLE #239
The C-OPS used for BOUSSOLE cruises was under calibration at Biospherical Instruments Inc. However, the C-OPS used by the Roscoff team was sent to us in order to acquire data during this cruise. Unfortunately, because of a shipment delay, the C-OPS profiles could not be performed the first day. And it was not possible to perform the profiles the following days because of the bad weather and a sailor strike.

BOUSSOLE #240
C-OPS profiles could not be performed during this cruise because the instruments were sent to Biospherical Instruments Inc. for calibration. The calibrations were finished but unfortunately the radiometers could not be received in time for the cruise due to shipping delays.

BOUSSOLE #241
No problems.

BOUSSOLE #242
BOUSSOLE operations including C-OPS profiles could not be performed during this cruise due to a failure on the R/V *Téthys II.*

BOUSSOLE#243
Problems appeared in the C-OPS EdZ radiometer: some wavelengths were not recorded (565 and 780 nm) and some wavelength were unstable (665, 683 and 710 nm). After the cruise, the radiometer was tested in the lab: the voltage and the current draw were too low. So, it was sent to the manufacturer for repair. It appeared that the failure was due to a leak in the instrument but it was not possible to determine its cause.

BOUSSOLE#244
Problems appeared in the BOUSSOLE C-OPS EdZ radiometer (S/N #152) during the previous cruise. So, it was sent to the manufacturer for repair. The EdZ radiometer was replaced with the one shared among the marine optics and remote sensing group at LOV (S/N #182). So, the configuration of the C-OPS is different: there were some differences between EdZ and EuZ wavelengths. Some wavelengths (320, 380 and 395 nm) and PAR are lacking from EdZ sensor.

BOUSSOLE#245
The BOUSSOLE C-OPS EdZ radiometer (S/N #152) was sent to the manufacturer for repair. The EdZ radiometer was replaced with the one shared among the marine optics and remote sensing group at LOV (S/N #182). So, the configuration of the C-OPS is different: there were some differences between EdZ and EuZ wavelengths. Some wavelengths (320, 380 and 395 nm) and PAR are lacking from EdZ sensor.

BOUSSOLE #246
The BOUSSOLE C-OPS EdZ radiometer (S/N #152) was sent to the manufacturer for repair. The EdZ radiometer was replaced with the one shared among the marine optics and remote sensing group at LOV (S/N #182). So, the configuration of the C-OPS is different: there were some differences between EdZ and EuZ wavelengths. Some wavelengths (320, 380 and 395 nm) and PAR are lacking from EdZ sensor.

BOUSSOLE #247
The BOUSSOLE C-OPS EdZ radiometer (S/N #152) was returned from the manufacturer after repair. It was difficult to balance and adjust the C-OPS for the descent phase of the profiles because its configuration was probably modified. The EdZ radiometer appeared to be much lighter than before its repair. This issue was solved by adding 140 g of weight in the frame on the EdZ side.

BOUSSOLE #248
No problems

BOUSSOLE #249
No problems