

Sampling sites during the AMOR-B-Flux cruise in September 2015

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Sampling sites during the AMOR-B-Flux cruise in September 2015 and main characteristics of bottom waters; dist. = distance to the Rhône River mouth; ω = sedimentation rate; Station Z was sampled twice (Z on 09/08/15 and Z' on 09/14/15) to investigate spatial variability; n.d. = not determined.

Domain	Proximal			Prodelta			Distal
Stations	A	Z	Z'	AK	B	K	E
Long. ° E	4.85	4.868	4.868	4.853	4.833	4.858	4.684
Lat. °N	43.311	43.318	43.318	43.307	43.305	43.301	43.22
Dist. [km]	2.1	2.2	2.2	2.8	3	3.3	14.3
Depth [m]	20	20	20	42	50	58	72.5
Temp. [°C]	16.3	19.6	14.7	16.2	20.6	14.7	14.3
Salinity	37.5	37.6	37.7	37.7	38.0	37.7	37.8
O ₂ [μM]	253.1 ± 0.3	249.5 ± 0.3	242.6 ± 0.2	250.2 ± 0.1	n.d.	241.8 ± 0.2	221.5 ± 0.3
DIC [mM]	2.29 ± 0.01	2.31 ± 0.01	n.d.	2.28 ± 0.01	2.27 ± 0.01	2.31 ± 0.01	2.33 ± 0.01
TA [mM]	2.61 ± 0.02	2.60 ± 0.01	n.d.	2.60 ± 0.02	2.60 ± 0.01	2.60 ± 0.02	2.61 ± 0.01
pH _T	8.08 ± 0.01	8.06 ± 0.01	8.09 ± 0.01	8.09 ± 0.01	8.07 ± 0.01	8.08 ± 0.01	8.05 ± 0.01
mean ϕ	0.69 ± 0.04	0.65 ± 0.04	0.65 ± 0.04	0.68 ± 0.02	0.66 ± 0.03	0.65 ± 0.05	0.64 ± 0.04
w [cm yr ⁻¹]		30 - 40 ^a			1 - 4 ^b		0.1 - 1 ^c
Benthic fluxes (mmol m ⁻² d ⁻¹)							
TA flux	14.3 ± 1.6	73.9 ± 20.6	56.0 ± 17.8	n.d.	n.d.	n.d.	3.7 ± 0.9
DIC flux	17.8 ± 1.6	78.3 ± 10.9	37.2 ± 7.2	n.d.	n.d.	n.d.	9.9 ± 0.9
DOU	10.2 ± 1.3	10.4 ± 0.9	n.d.	n.d.	n.d.	5.9 ±	3.6 ± 0.6
				1.0			

a. Data from Charmasson et al., 1998

b. Data from Lansard et al., 2009

c. Data from Miralles et al., 2005

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