

Supplementary information

Table S1. Summary of the subsampling selected times for bacterial abundance (BA), bacterial production (BP), ectoenzymatic activities (EEA; aminopeptidase, B-glucosidase and lipase), dissolved organic carbon (DOC), dissolved organic nitrogen (DON) and dissolved organic phosphate (DOP).

Incubation period; d	AB	BP	EEA	DOC	DON	DOP
*T0	x	x	x	x	x	x
T=1.7	x	x				
T=2.7	x	x				
T=3.7	x	x				
T=4.7	x	x				
T=5.7	x	x	x	x	x	x
T=6.7	x	x				
T=7.7	x	x				
T=8.7	x	x				
T=11.7	x	x				
T=13.7	x	x				
T=15.7	x	x	x	x	x	x

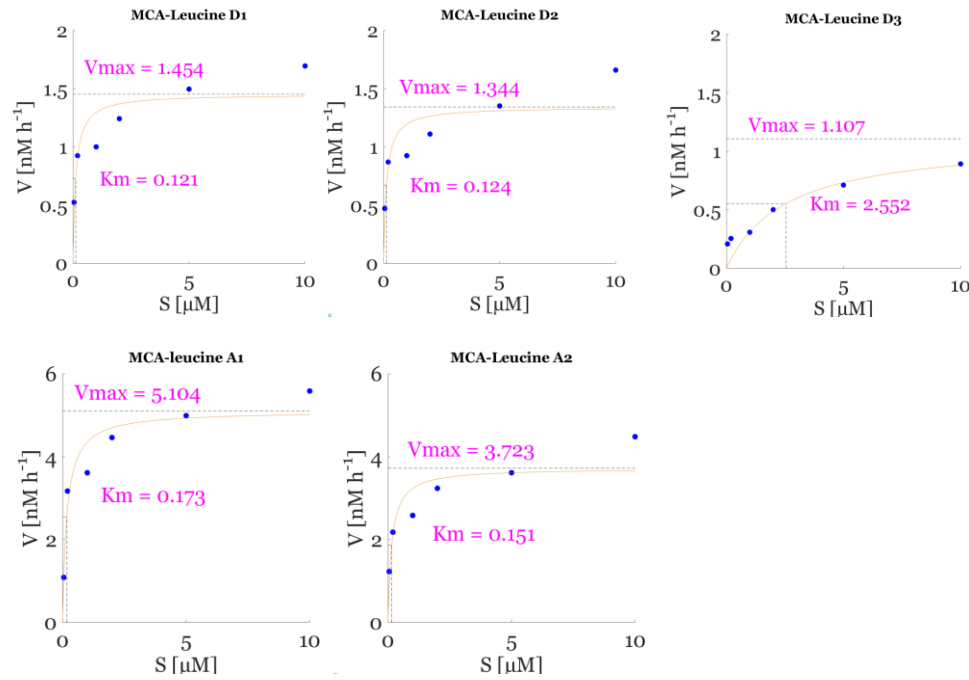
*The sampling at T0 was performed 1 hour after anthropogenic, Saharan dust aerosols and glucose additions.

Table S2. Elemental C:N:P ratios in the amended treatments and in the control, over the incubation period.

	Glucose	Saharan Dust aerosol	Anthropogenic Aerosol	Control
Incubation period; days	DOC:DON			
0	23 ± 3	9 ± 0.4	9 ± 2	8 ± 0.5
5.7	10 ± 3	9 ± 2	6.5 ± 1	10 ± 5
15.7	6 ± 2	8 ± 6	5 ± 1	8 ± 1
	DOC:DOP			
0	1667 ± 790	1657 ± 446	781 ± 108	-
5.7	255 ± 104	606 ± 251	872 ± 284	677 ± 300
15.7	-	-	-	-
	DON:DOP			
0	79 ± 39	181 ± 51	106 ± 12	-
5.7	25 ± 3	76 ± 44	136 ± 49	84 ± 23
15.7	-	-	-	-

(-) DOP values were below the detection limit of the conventional automated procedure

Panel A



Panel B

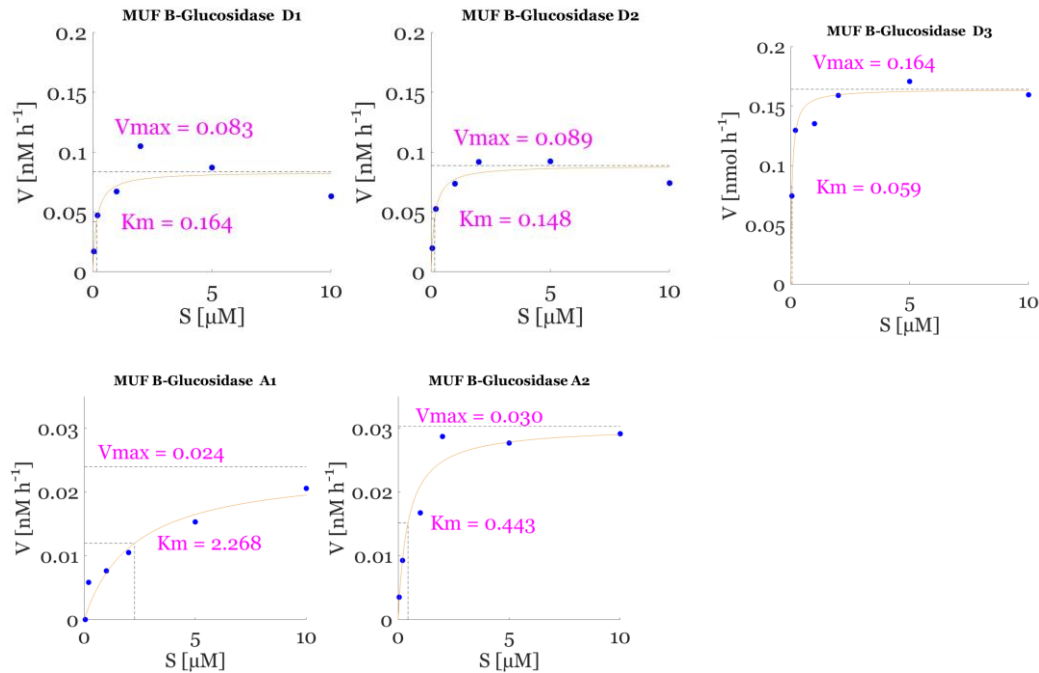


Figure S1. Amino-peptidase (MCA-leucine; panel A), B-glucosidase (MUF B-glucosidase; panel B) and lipase (MUF-palmitate; Panel C) activities in the anthropogenic and Saharan dust (D) amended treatment at the end of the incubation period (t=15.7 days). D1, D2 and D2 refer to the triplicate of the Sharan dust treatment while A1 and A2 reflect those of the anthropogenic aerosol treatment. V_{max} and K_m refer to the maximum hydrolysis rate and to the Michaelis Menten constant, respectively.