

Supporting Information:

Seasonal variation of aliphatic amines in marine
sub-micrometer particles at the Cape Verde islands

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Table S1: Merits of analysis for the HPLC/ESI-MS method used in this study. The filter recovery was determined by spiking blank quartz filters with known amounts of amines, and subsequent filter extraction and analysis using the method described in the section 2.3.3. The LOD (limit of detection) is defined as S/N ratio of 3 (signal to noise ratio) at an injection volume of 10 μ L. (RT retention time)

	Filter recovery (n=4) [%]	R ² (n=10)	LOD (n=5) [μ M]	RT (n=10) [min]
Methylamine	89 \pm 22	0.9993	0.55 \pm 0.11	22.3 \pm 0.3
Dimethylamine	82 \pm 6	0.9997	1.32 \pm 0.19	31.2 \pm 0.2
Diethylamine	96 \pm 10	0.9997	0.81 \pm 0.09	52.8 \pm 0.2
Morpholine	81 \pm 5	0.9994	0.77 \pm 0.04	40.4 \pm 0.2

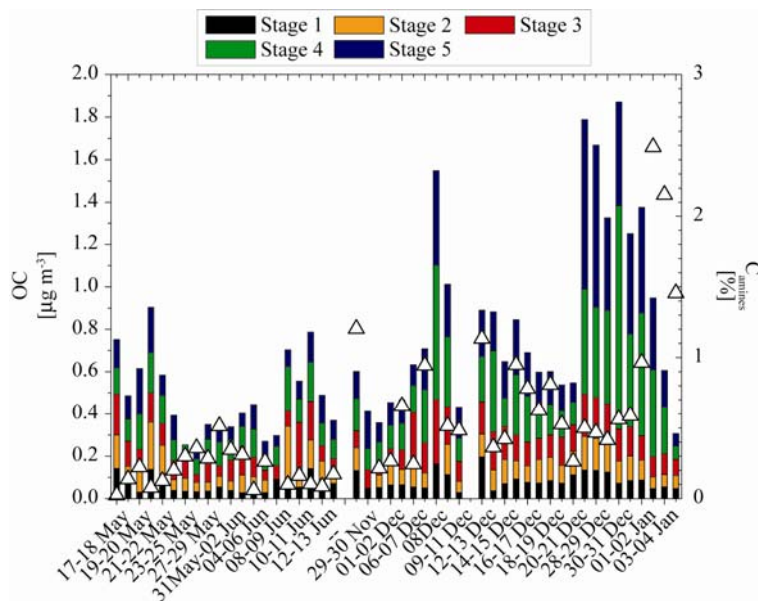


Figure S1: Organic carbon content [left axis, $\mu\text{g m}^{-3}$] detected from five-stage Berner impactor (colored bar) and the contribution of amines in % to the carbon content (right axis, open triangle) detected in the corresponding stage 2 sample.

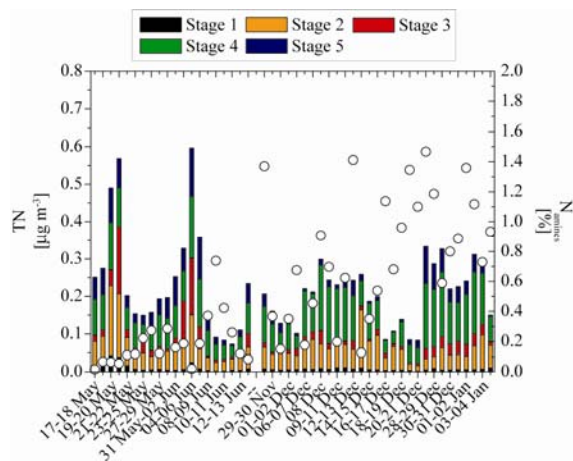


Figure S2: Sum of inorganic nitrogen species and amines [left axis, $\mu\text{g m}^{-3}$] detected from five stage Berner Impactor (colored bar) and the contribution of amines in % to the nitrogen species (left axis, open circle) detected in the corresponding stage two sample.

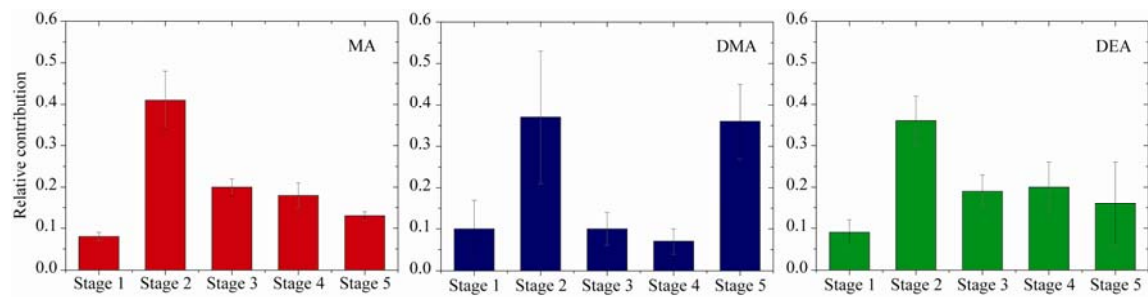


Figure S3: Relative contribution of methylamine (MA), dimethylamine (DMA) and diethylamine (DEA) to the five-stage Berner samples with air masses originating from the open North Atlantic Ocean.

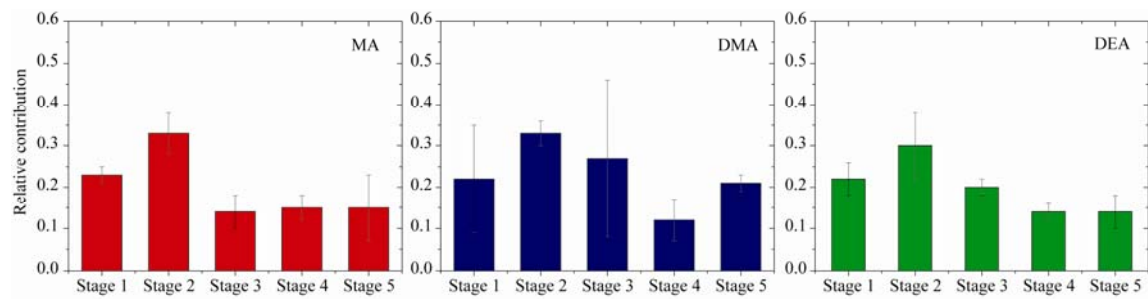


Figure S4: Relative contribution of methylamine (MA), dimethylamine (DMA) and diethylamine (DEA) to the five-stage Berner samples with air masses originating from the African continent.