Supplement of Atmos. Chem. Phys., 18, 17497–17513, 2018
https://doi.org/10.5194/acp-18-17497-2018-supplement

Atmospheric Chemistry and Physics
Open Access
EGU

Supplement of

Activation of intact bacteria and bacterial fragments mixed with agar as cloud droplets and ice crystals in cloud chamber experiments

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Table S1. Experimental parameters for the three expansions including the bacteria used, the temperature range during each expansion, the maximum RH_w and RH_i achieved, the range of calculated PCVI or IS-PCVI cut-sizes, the PCVI and IS-PCVI enhancement factors and transmission efficiencies, CCN/CN, and INP/CN.

Expansion #	**1**	**2**	**3**
FIN01 Experiment #	**36**	**37**	**38**
Bacteria	pseudomonas syringae	PF CGina	PF CGina
Temperature Range (°C)	-4 to -12	-4 to -11	-4 to -12
Maximum RH_w (%)	97	96	96
Maximum RH_i	109	107	107
PCVI Cut-size Range(µm)	5.6 to 15.9	4.5 to 12.6	
IS-PCVI Cut-size Range (µm)			7.0 to 24.8
PCVI/IS-PCVI Enhancement Factor	2	2	12
PCVI/IS-PCVI Transmission Efficiency (%)	94.4	61.9	91.5
CCN/CN	0.45	0.30	0.47
INP/CN	0.0014	0.0016	0.0004

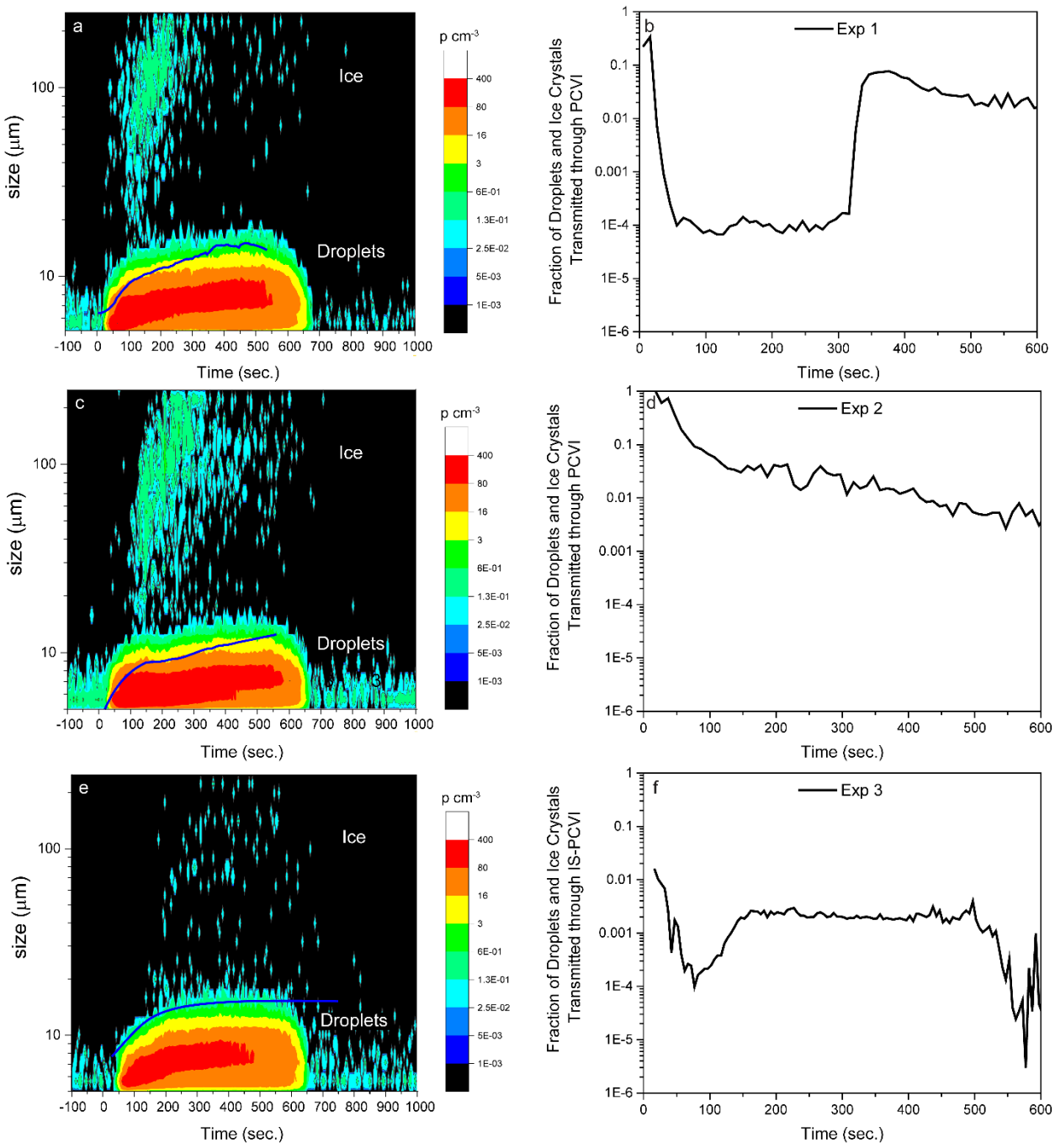

Figure S1: The welas2-measured size distributions, calculated cut-sizes, and fractions of cloud droplet and ice crystals that are transmitted through the PCVI or IS-PCVI as a function of time for expansions 1 (a and b), 2 (c and d), and 3 (e and f).

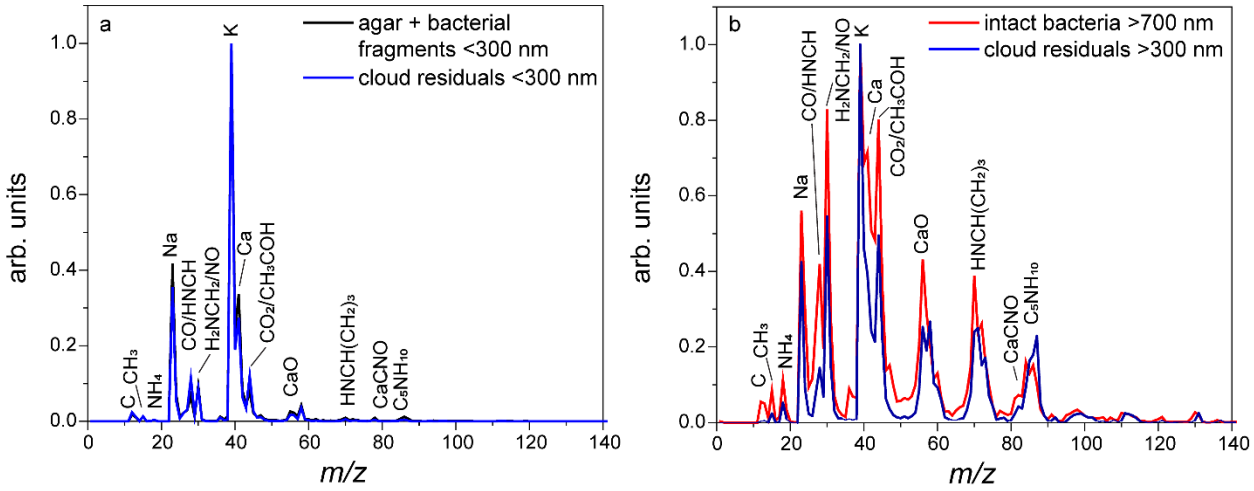

Figure S2: PF CGina, Expansion 2. (a) Comparison between the MS of cloud residuals smaller than 300 nm and the reference MS of the small particle mode (d_{va} < 300 nm); (b) Comparison between the MS of cloud residuals larger than 300 nm and the MS of intact bacteria (d_{va} > 700 nm).