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Supplement of

Composition of ice particle residuals in mixed-phase clouds at Jungfraujoch (Switzerland): enrichment and depletion of particle groups relative to total aerosol

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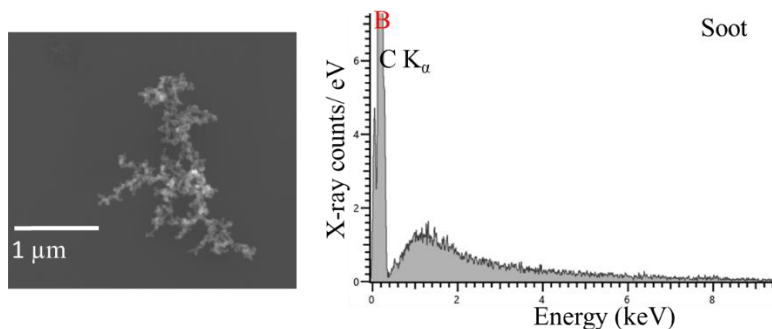
S1: Sample information

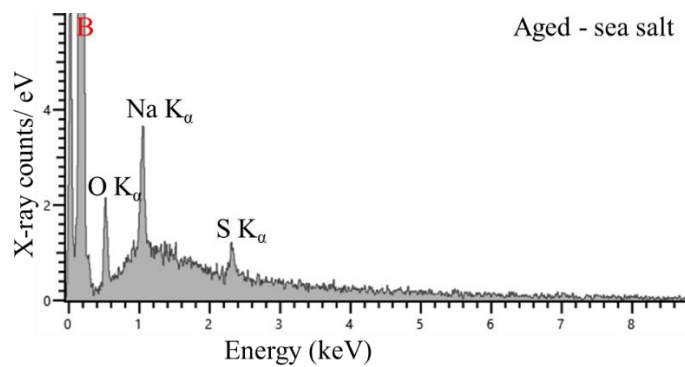
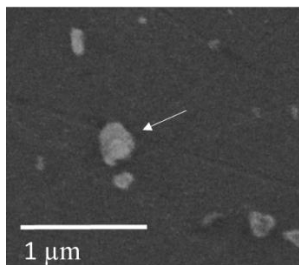
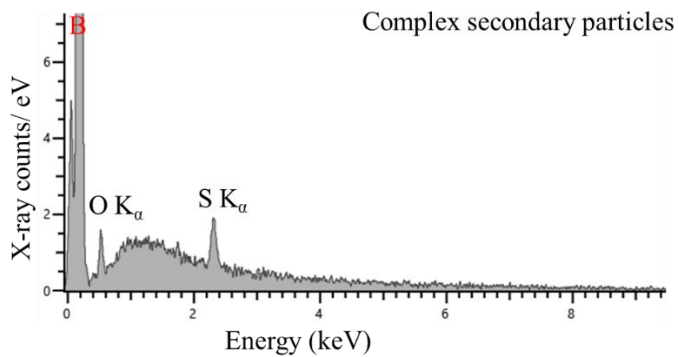
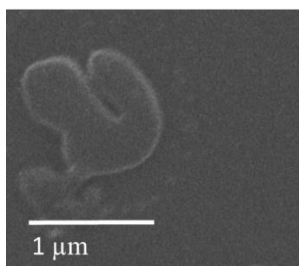
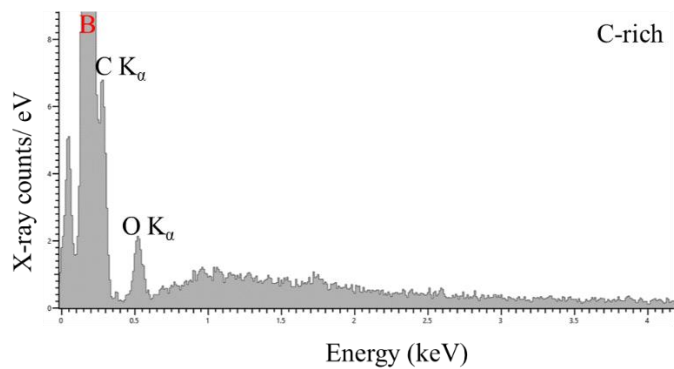
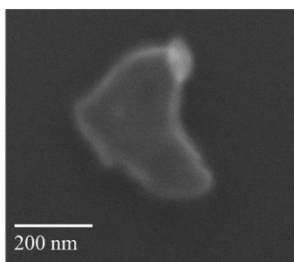
Table S1: Sampling time, average temperature and sample number

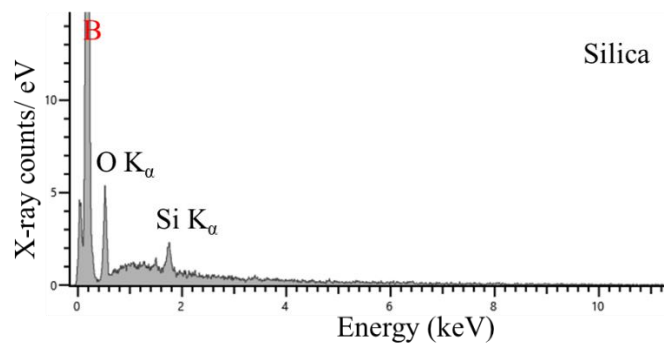
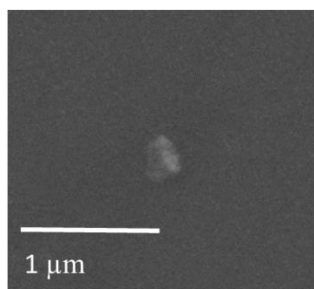
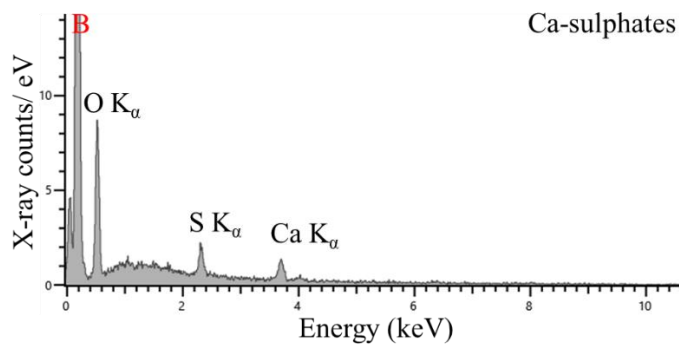
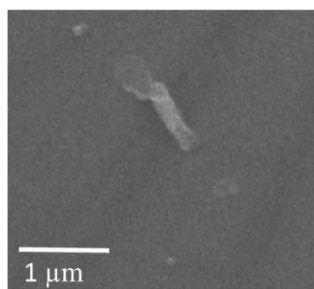
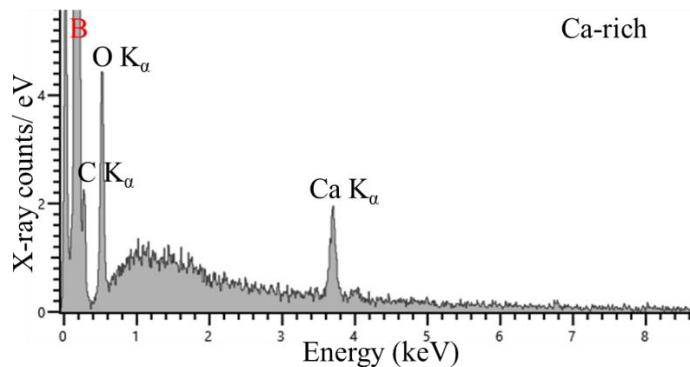
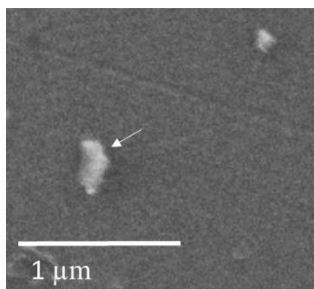
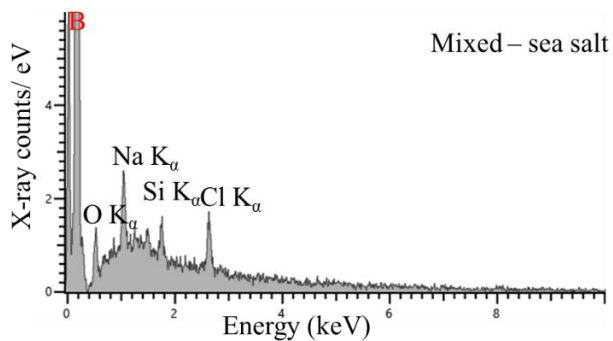
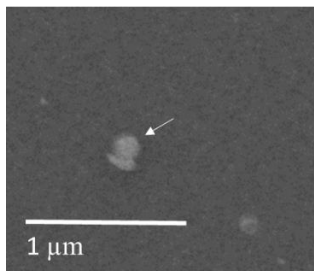
Date and time (UTC+1)	Temperature*(°C)	Sample number
02.02.2017 (11:08-15:00)	-11	1
02-03.02.2017 (21:51-5:57)	-11	2a+b
04.02.2017 (10:02-13:37)	-13	3a+b
04.02.2017 (16:16-20:06)	-16	4a+b
06.02.2017 (09:29-15:16)	-15	5a+b
10.02.2017 (08:31-12:03)	-16	6a+b
10.02.2017 (13:40-16:46)	-16	7
12.02.2017 (08:32-10:12)	-11	8a+b
17.02.2017 (10:06-14:06)	-12	9
17.02.2017 (15:41-21:14)	-15	10

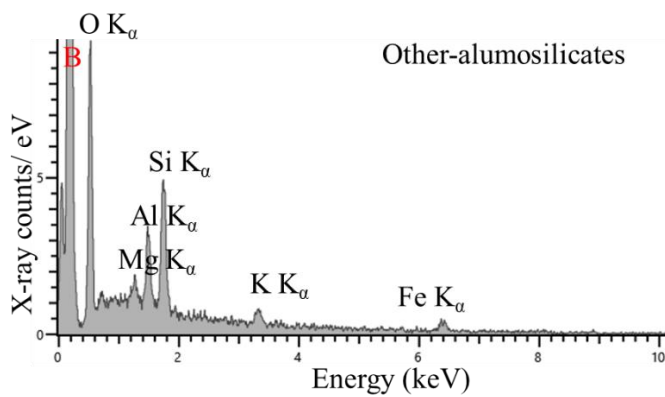
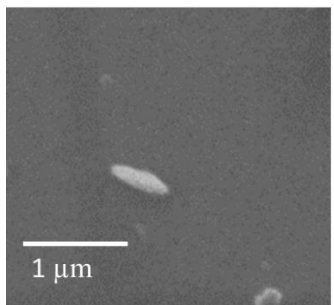
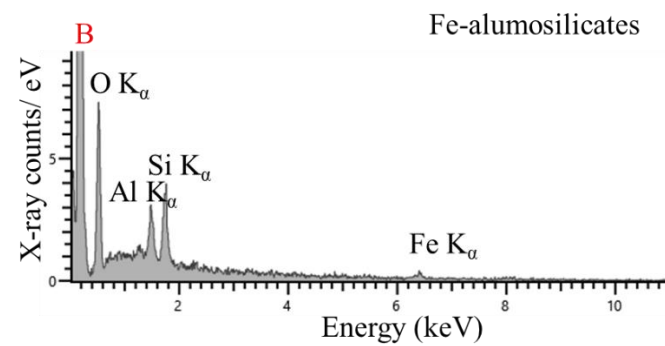
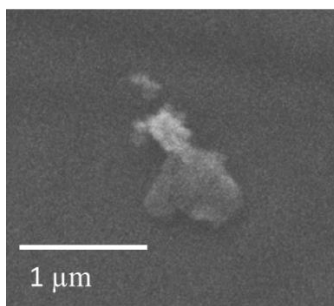
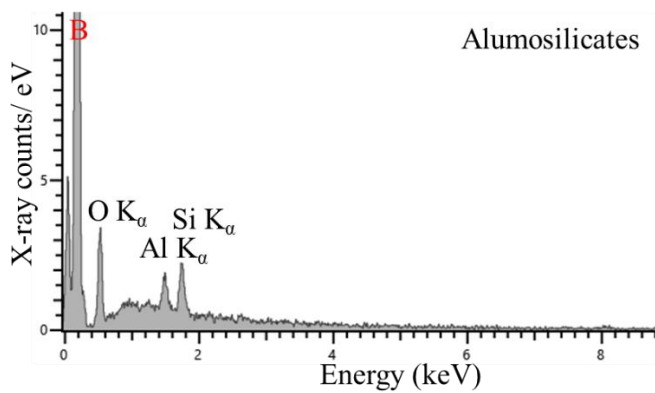
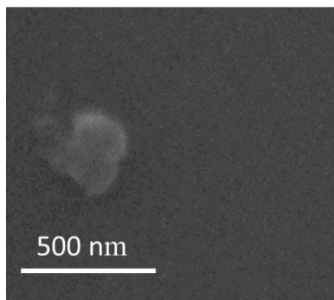
*mean value for sampling period

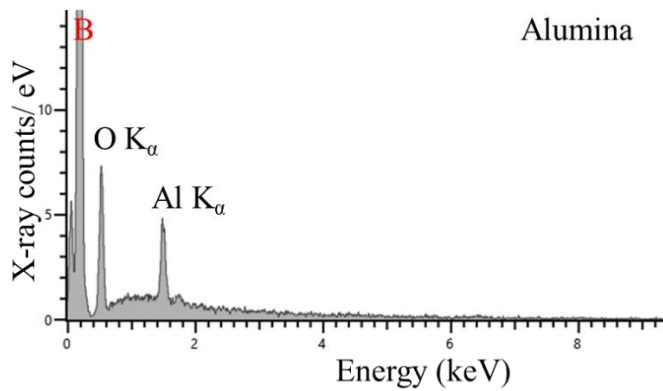
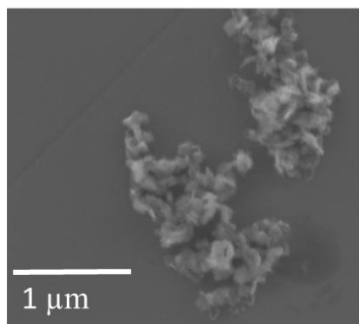
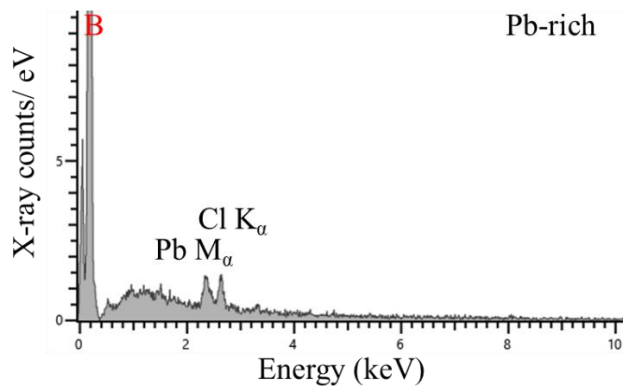
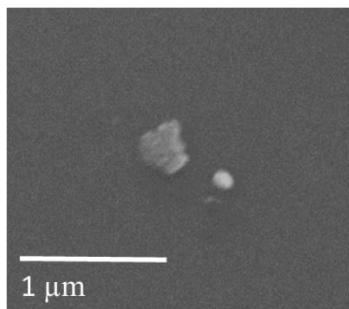
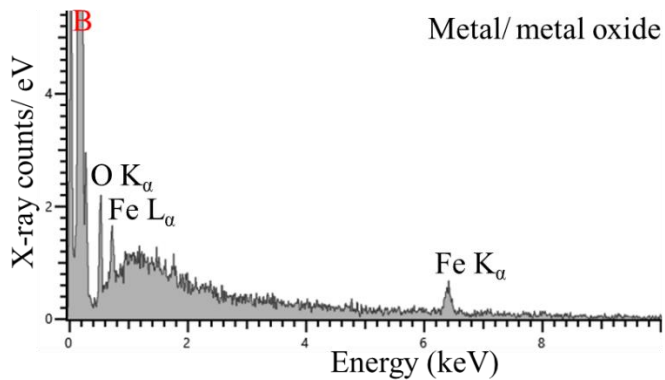
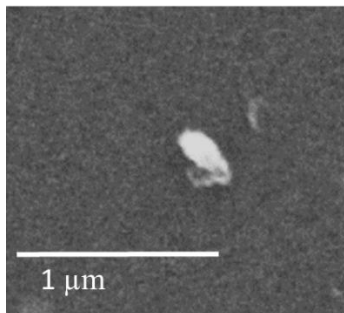
- 5 Examples of each particle group. Secondary electron image and corresponding energy dispersive X-ray spectrum for a typical particle of each group are presented under. B indicates the X-ray peak from the boron substrate.

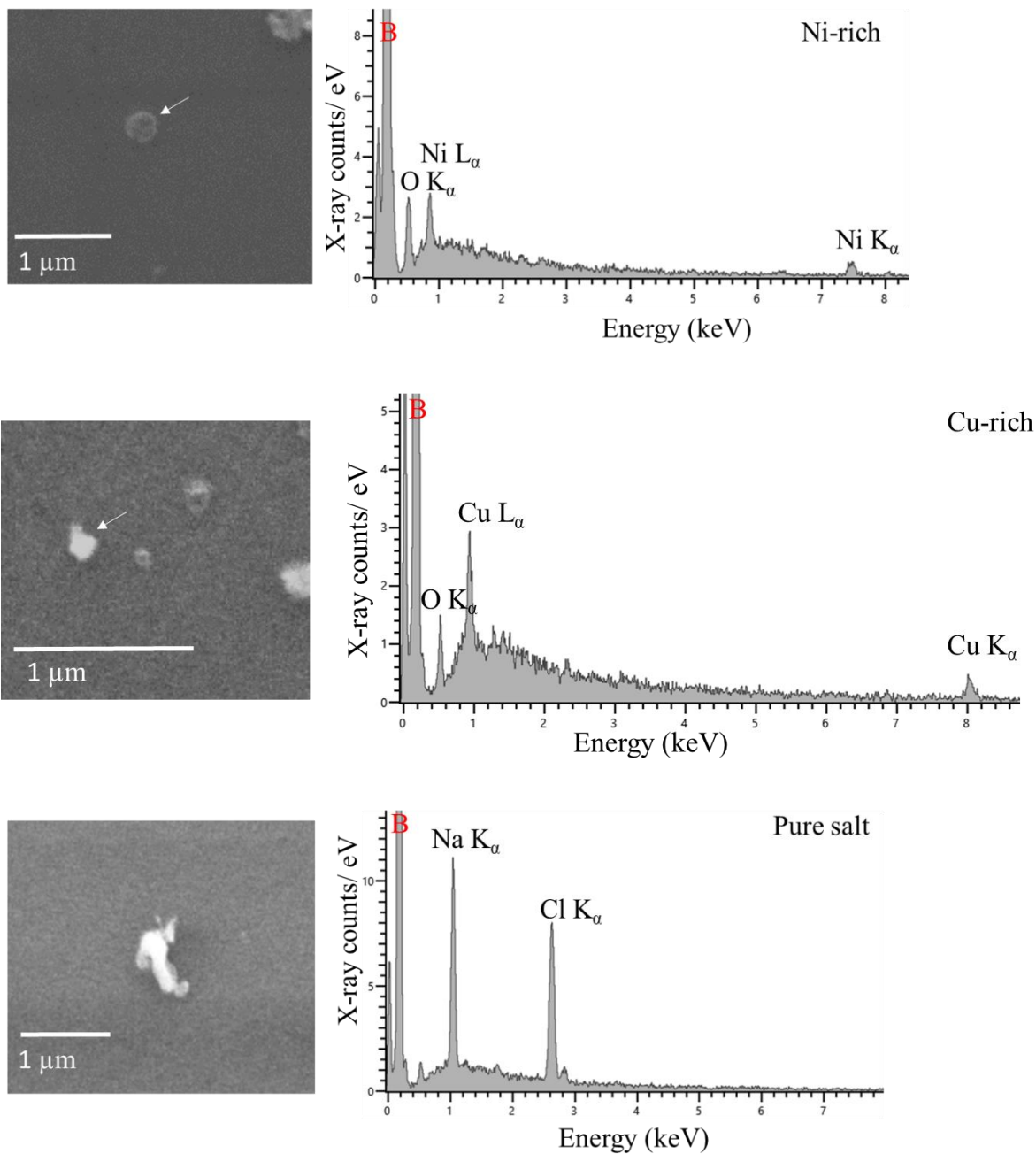












5 Figure S1: Secondary electron images and corresponding energy dispersive X-ray spectrum for typical particles in the IR and total aerosol fraction. B indicates the X-ray peak from the boron substrate

S2: Size distribution

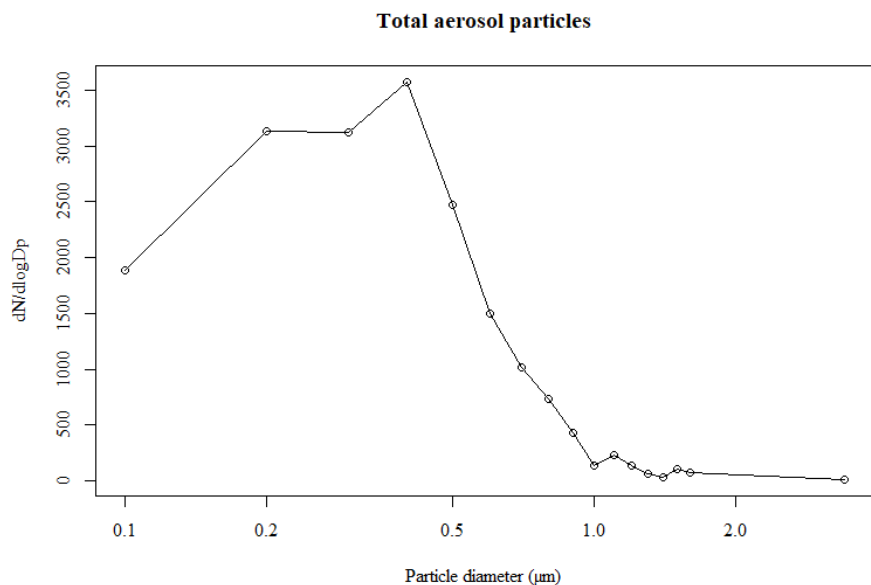
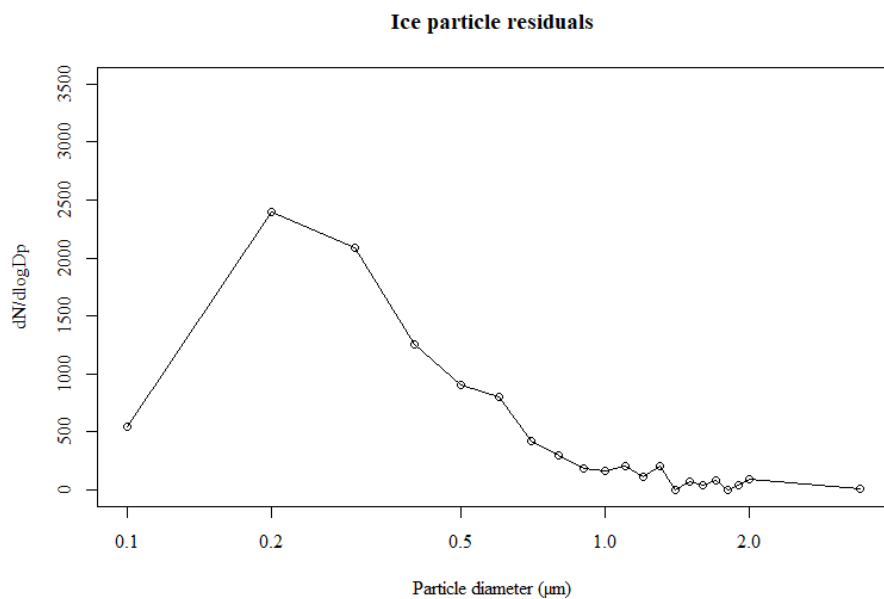


Figure S2: Size distribution of total aerosol, all groups and samples combined.



5 Figure S3: Size distribution of ice particle residual, all groups and samples combined.

S3: All particle groups found in the IR samples

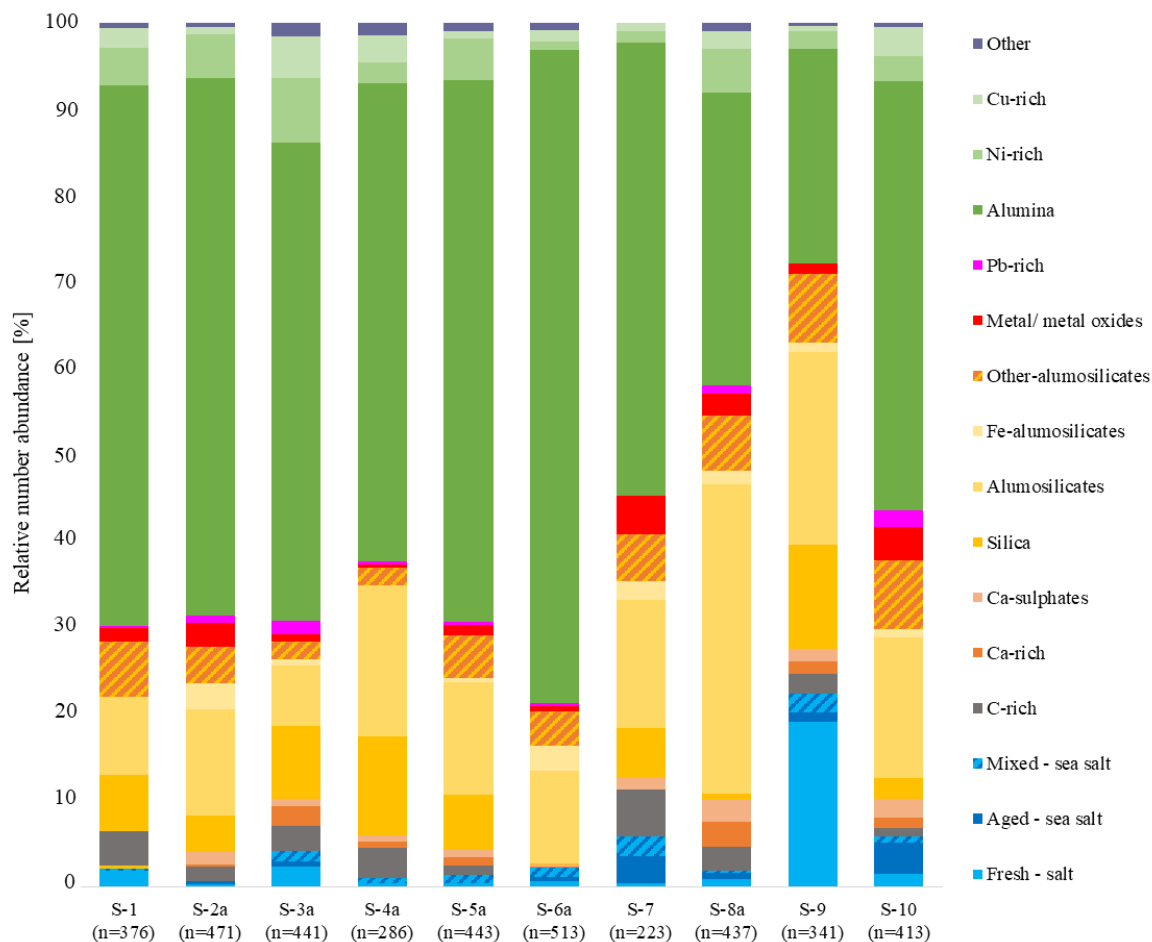


Figure S4: Relative number abundance of the different particle groups of IR sampled in mixed phase clouds at temperatures between -10°C and -18°C including sampling artefacts (pure salt, alumina, Ni-rich and Cu-rich particles).