

Supplement of Atmos. Meas. Tech., 10, 3231–3248, 2017  
<https://doi.org/10.5194/amt-10-3231-2017-supplement>  
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Atmospheric  
Measurement  
Techniques  
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*Supplement of*

## **Intercomparison study and optical asphericity measurements of small ice particles in the CERN CLOUD experiment**

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## Supplemental material

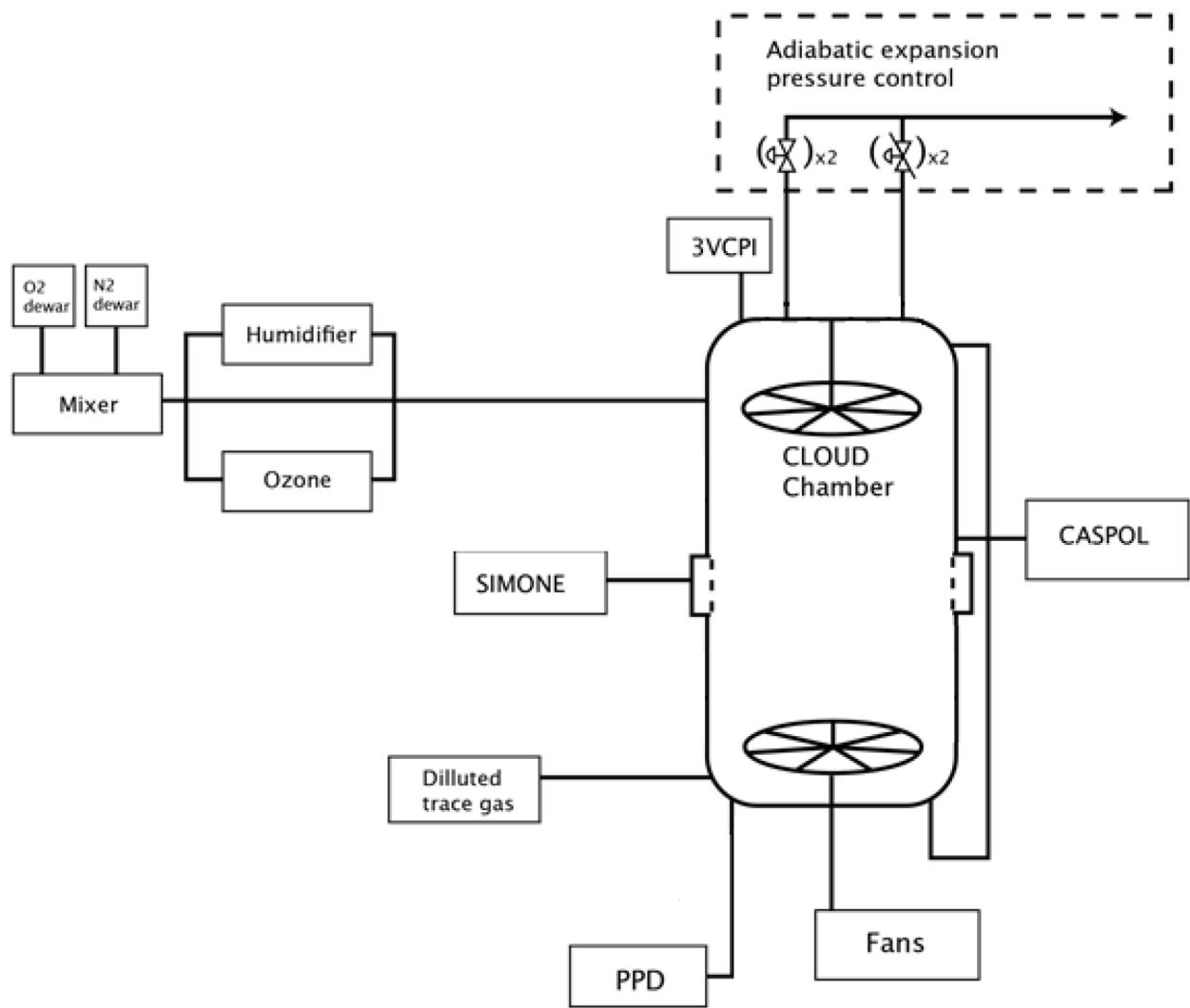


Figure S1. Simplified diagram of the CLOUD chamber and the sampling instruments.

**Table S2. Lower and upper size bin thresholds in CASPOL.**

Bin number	Bin lower threshold	Bin upper threshold	Bin width
1	0.51	0.61	0.1
2	0.61	0.68	0.07
3	0.68	0.75	0.07
4	0.75	0.82	0.07
5	0.82	0.89	0.07
6	0.89	0.96	0.07
7	0.96	1.03	0.07
8	1.03	1.10	0.07
9	1.10	1.17	0.07
10	1.17	1.25	0.08
11	1.25	1.5	0.25
12	1.5	2	0.5
13	2	2.5	0.5
14	2.5	3	0.5
15	3	3.5	0.5
16	3.5	4	0.5
17	4	5	1
18	5	6.5	1.5
19	6.5	7.2	0.7
20	7.2	7.9	0.7
21	7.9	10.2	2.3
22	10.2	12.5	2.3
23	12.5	15	2.5
24	15	20	5
25	20	25	5
26	25	30	5
27	30	35	5
28	35	40	5
29	40	45	5
30	45	50	5

**Table S3. Run #1292.01 comparison of R<sup>2</sup> values as a function of mean diameter, concentration, temperature, and column fraction.**

Time [min]	0 – 1	9 – 10.5	1 – 3	12 – 14	0 – 2	7 – 10	0 – 5	12 – 14
parameter	Diameter↓ Concentration↑	Diameter↓ Concentration↓	Diameter↑ Concentration↑	Diameter↑ Concentration↓	T↓	T↑	Column fraction↓	Column fraction↑
R <sup>2</sup> value	0.385	0.03	0.023	0.129	0.35	0.004	0.13	0.129