Intercomparison of Mobility Particle Size Spectrometers

Project No.:	*MPSS-2020-3-13*
Principal Investigator:	TROPOS
Home Institution:	TROPOS
Participant:	-
Candidate:	TROPOS MPSS Haenger
Made by:	TROPOS
Counter (SN):	TSI CPC 3772 SN: 70835059
Location of the quality assurance:	TROPOS Leipzig, lab 118
Comparison period:	May 15, 2020 – May 18, 2020
Last Intercomparison (with Project No.):	

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Intercomparison between TROPOS Reference Instrument No. 1 and MPSS Haenger
15.05.2020 18:00PM – 18.05.2020 06:00AM

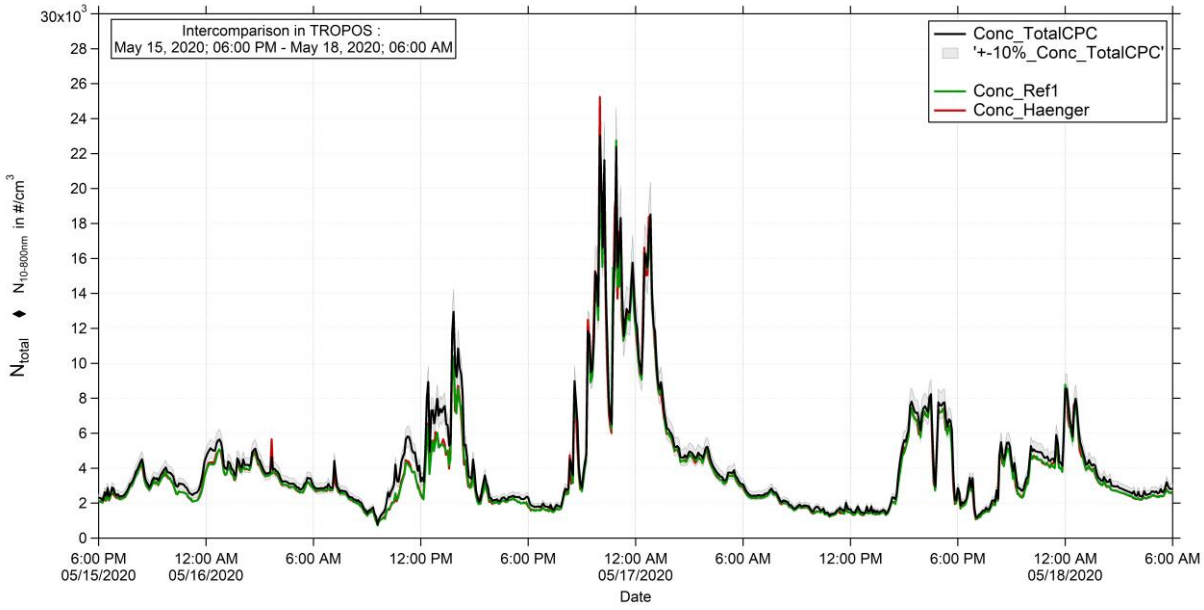

Figure 01: Time series (May 15, 2020 6 PM – May 18, 2020 6 AM) of the integrated particle number concentration ($N_{10\text{-}800nm}$) of the MPSS and total number concentration (N_{total}) of the Reference TSI-CPC Model 3772. Multiple charge correction, internal diffusion losses, CPC flow corrections. The candidate is running with the TSI Kr.85 source.

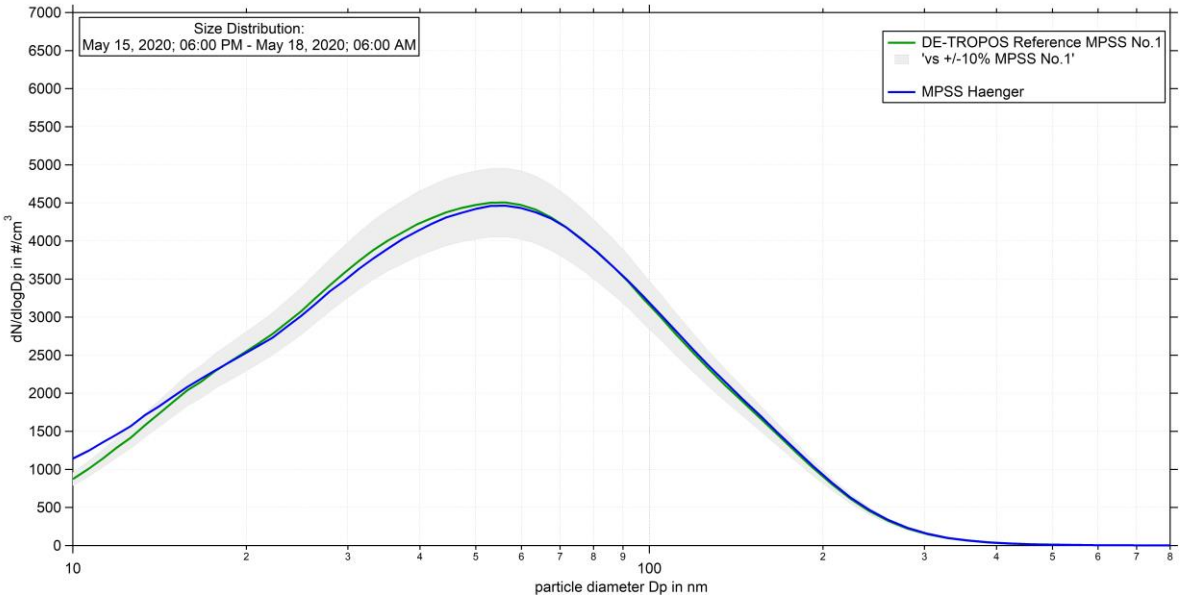

Figure 02: Particle size distribution for TROPOS Reference MPSS No.1 and DE-TROPOS MPSS Haenger, flow corrections, multiple charge correction and diffusion loss corrections are included.

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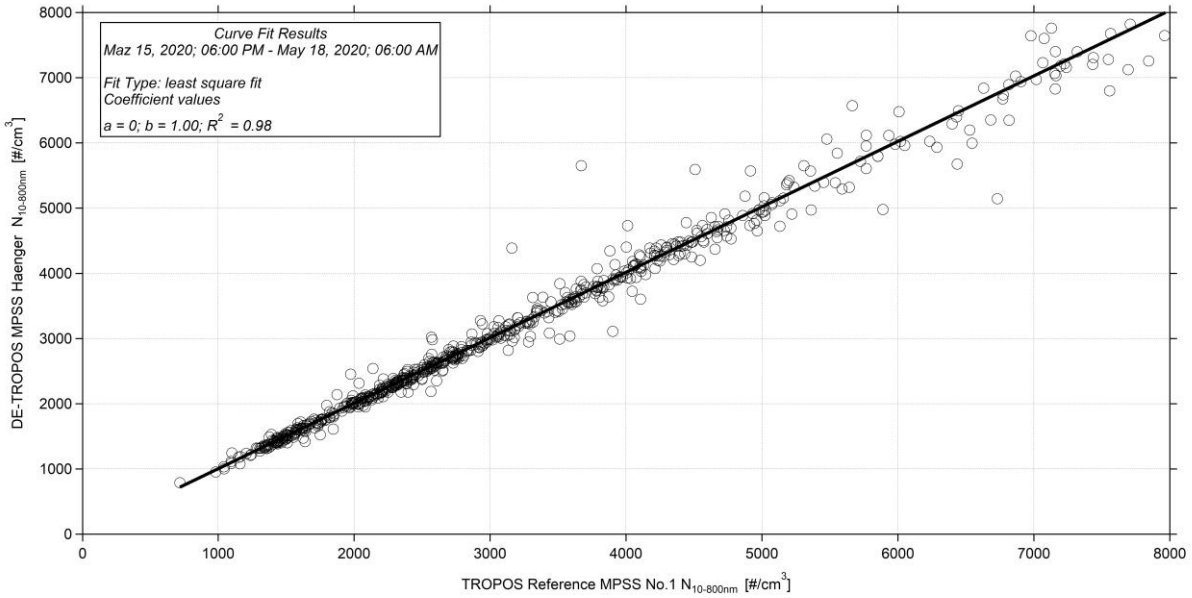

Figure 03: Linear regression between the number concentration of the TROPOS Reference MPSS No. 1 and DE-TROPOS MPSS Haenger.

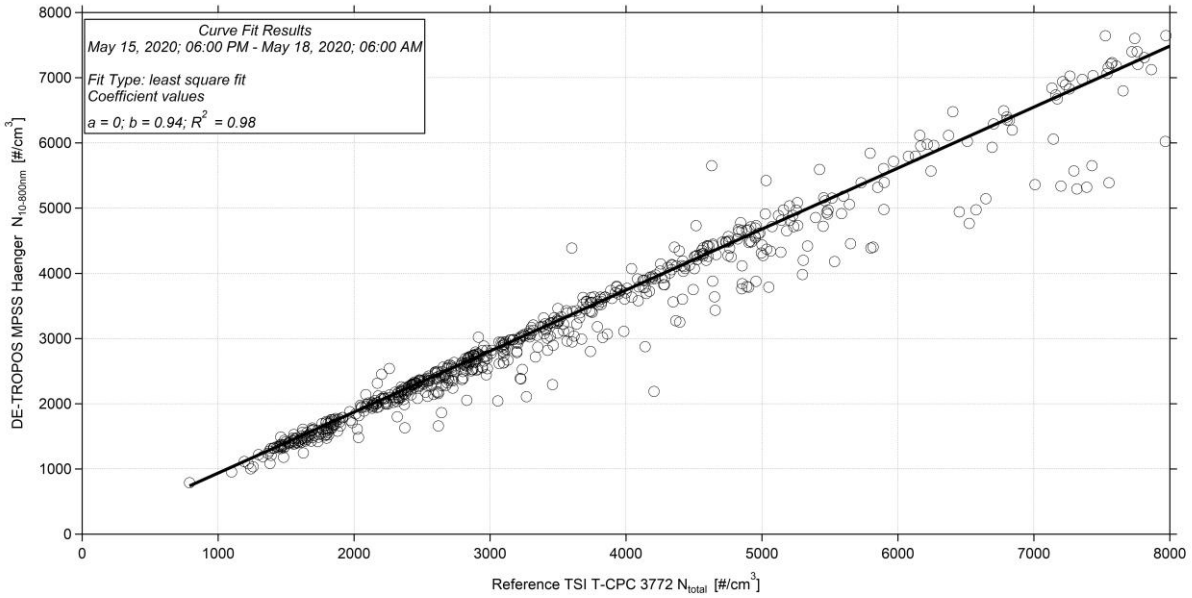

Figure 04: Linear regression between the number concentration of the TROPOS Reference Total-CPC Model 3772 and DE-TROPOS MPSS Haenger.

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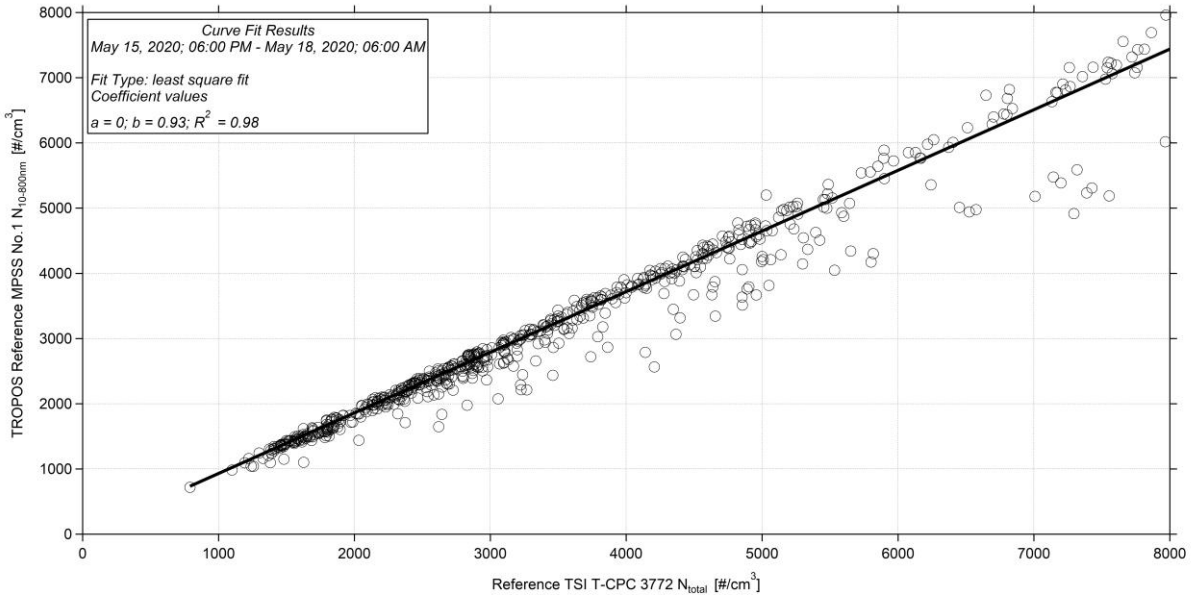

Figure 05: Linear regression between the number concentration of the TROPOS Reference Total-CPC Model 3772 and TROPOS Reference Instrument No. 1.

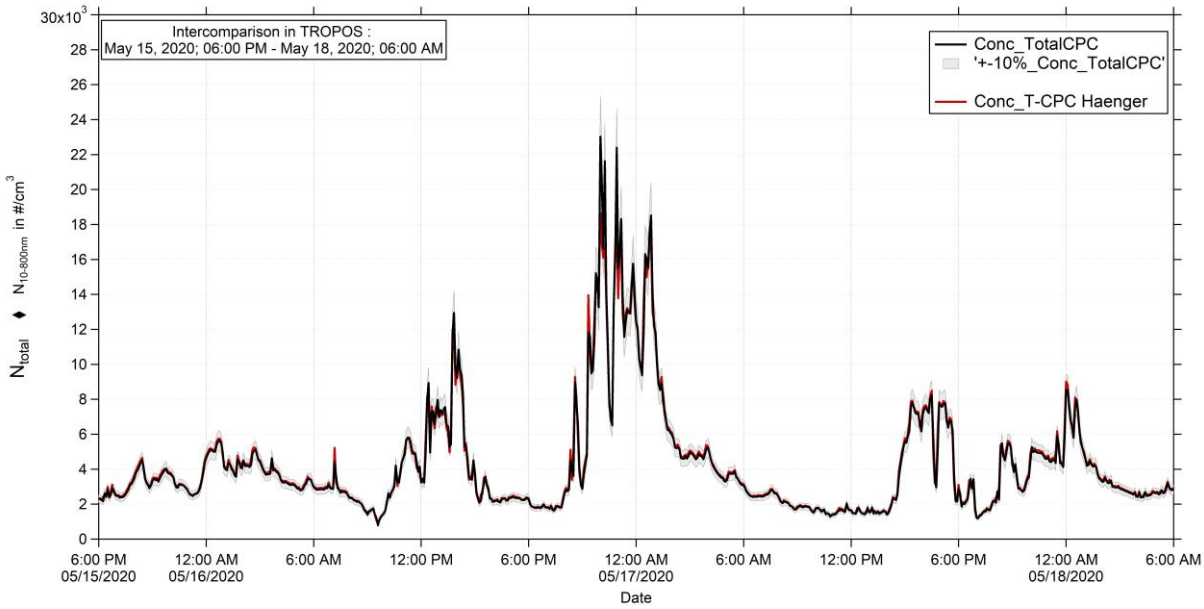

Figure 06: Time series (May 15, 2020 6 PM – May 18, 2020 6 AM) of the DE-TROPOS Reference T-CPC No.1 and the DE-TROPOS T-CPC Haenger.

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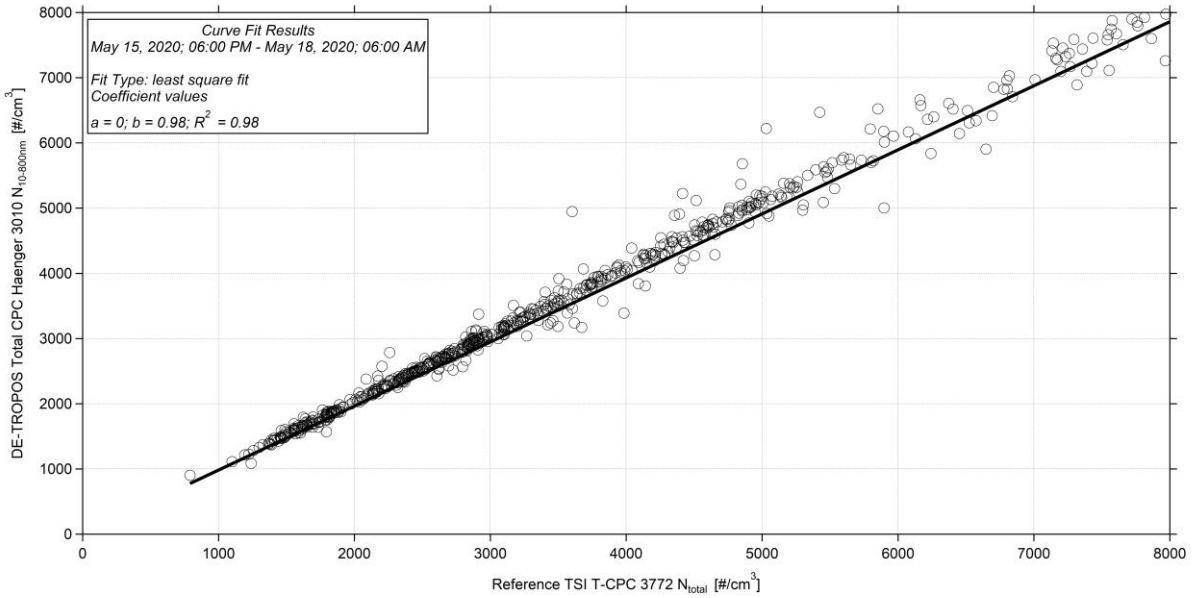

Figure 07: Linear regression between the number concentration of the DE-TROPOS Reference Total-CPC Model 3772 and DE-TROPOS Haenger T-CPC Model 3010.

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