

Intercomparison of Condensation Particle Counter

Project No.: CPC-2017-6-8

Basic information:

Location of the quality assurance: TROPOS, lab: 130

Delivery date: -

Setup in the laboratory: November 13, 2017

Comparison period: November 13, 2017

Principal Investigator	Home Institution	Participant	Instrument
Felix Lüönd	METAS	---	CH-METAS CPC; TSI CPC Model 3775 # 70701277

TROPOS Reference Instrument: Electrometer: TSI model 3068B
70838596
(4% offset to PTB electrometer)

Additional Equipment:

- Bubble flow meter 'Gilibrator', Gilian (Sensidyne)

Summary of Intercomparison:

Pre-status:

The TSI CPC Model 3775 was in good condition.

Final status:

The TSI CPC Model 3775 passed the target standards of ACTRIS and GAW.

On November 13, 2017, the CH-METAS CPC 3775 #70701277 participated in the TROPOS AEROMET CPC-Workshop.

1. Status of the wick: The wick was clean.
2. Status of the CPC: The CPC was working properly.
3. The flow rate was at 305.5 ccm.
4. Final CPC-Workshop: Compared to the electrometer the TSI CPC Model 3775 #70701277 was 7% higher at 40 nm. The Dp50 is at 3.7 nm. The CPC efficiency curve corresponds to the standard.

Final status: Nov 13, 2017

Dp in nm	counting efficiency
40	1.07
30	1.07
20	1.05
15	1.03
13	1.02
11	1.00
10	0.98
9	0.93
8	0.89
7	0.84
6	0.76
5	0.70

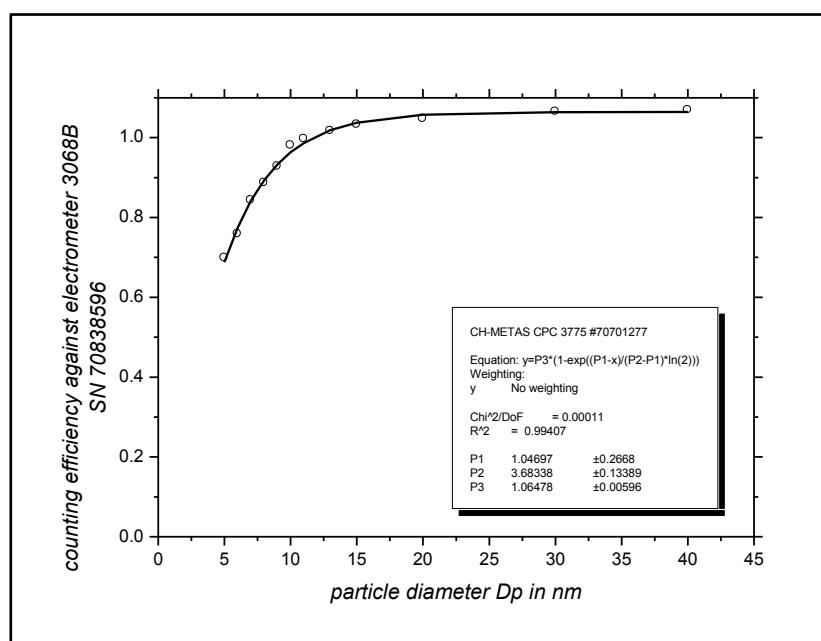


Figure 01: CPC efficiency curve based on Electrometer TSI 3068B. Serial number: 70838596



Kalibrierschein Calibration Certificate

Gegenstand:
Object: Aerosol Elektrometer
ID-Nummer: TSI_3068B_70838596

Hersteller:
Manufacturer: TSI Incorporated

Typ:
Type: 3068B

Kennnummer:
Serial No.: 70838596

Auftraggeber:
Applicant: AG 3.23 - Herr Nowak, Tel.: 3228

Anzahl der Seiten:
Number of pages: 4

Geschäftszeichen:
Reference No.: PTB AG 2.11-1461323527-0327

Kalibrierzeichen:
Calibration mark: 20790 PTB 16

Datum der Kalibrierung:
Date of calibration: 22.04.2016

Im Auftrag:
On behalf of PTB: Braunschweig, 04. Mai. 2016

Im Auftrag:
On behalf of PTB:

391 008 n

Dr. B. Schumacher

Siegel
Seal



C. Rohrig

Kalibrierscheine ohne Unterschrift und Siegel haben keine Gültigkeit. Dieser Kalibrierschein darf nur unverändert weiterverbreitet werden. Auszüge bedürfen der Genehmigung der Physikalisch-Technischen Bundesanstalt.
Calibration certificates without signature and seal are not valid. This calibration certificate may not be reproduced other than in full. Extracts may be taken only with permission of the Physikalisch-Technische Bundesanstalt.