



## Intercomparison of Condensation Particle Counter

Project No.: CPC-2017-6-12

### 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
Lola Brégonzio-Rozier	LNE	---	F-LNE CPC; TSI CPC Model 3788 # 3788114701

**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 3788 was in good condition.

### Final status:

The TSI CPC Model 3788 did not pass the target standards of ACTRIS and GAW.

On November 13, 2017, the F-LNE CPC 3788 #3788114701 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 293 ccm.
4. Final CPC-Workshop: Compared to the electrometer the TSI CPC Model 3788 #3788114701 was 13% higher in counting at 40 nm. The Dp50 is at 4.9 nm. The CPC efficiency curve corresponds to the standard.

## Final status: Nov 13, 2017

Dp in nm	counting efficiency
40	1.13
30	1.11
20	1.08
15	1.04
13	-
11	0.97
10	0.92
9	0.89
8	0.85
7	0.79
6	0.69
5	0.56

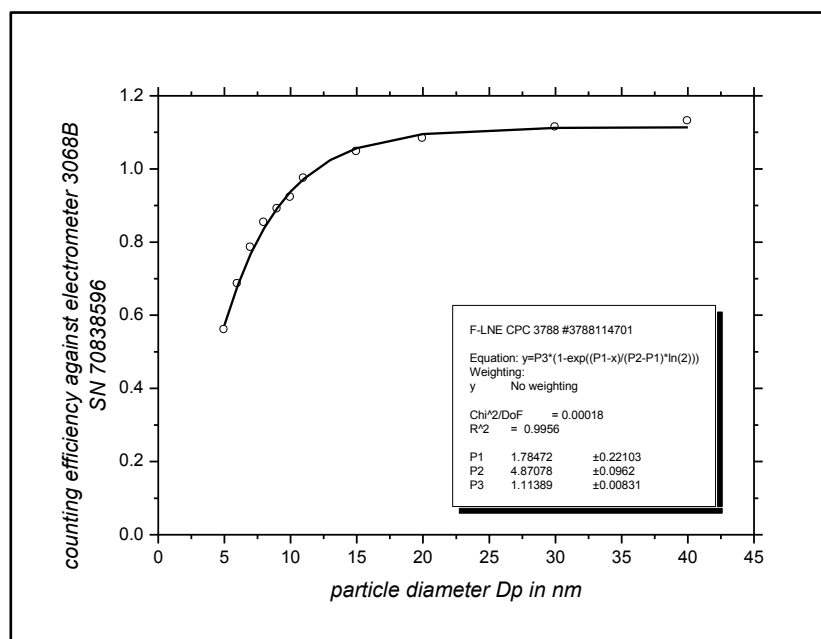


Figure 01: CPC efficiency curve based on Electrometer TSI 3068B. Serial number: 70838596



## 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

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