

## Intercomparison of Condensation Particle Counter

Project No.: CPC-2016-4-11b

### Basic information:

**Location of the quality assurance:** TROPOS, lab: 130

**Delivery date:** -

**Setup in the laboratory:** May 19, 2016

**Comparison period:** May 19, 2016

**Dp50:** calibration to 10 nm

Principal Investigator	Home Institution	Participant	Instrument
Pasi Aalto	University of Helsinki P.O. Box 64 00014 University of Helsinki FINLAND		FI-Helsinki_ARR_3772_SN70915028

**TROPOS Reference Instrument:** Electrometer: TSI model 3068B  
# 70838596  
Last calibration in April 2016

### **Additional Equipment:**

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

## **Summary of Intercomparison:**

### **Pre-status:**

The TSI CPC Model 3772 was in good condition.

### **Final status:**

The TSI CPC Model 3772 passed the quality standards of ACTRIS and GAW.

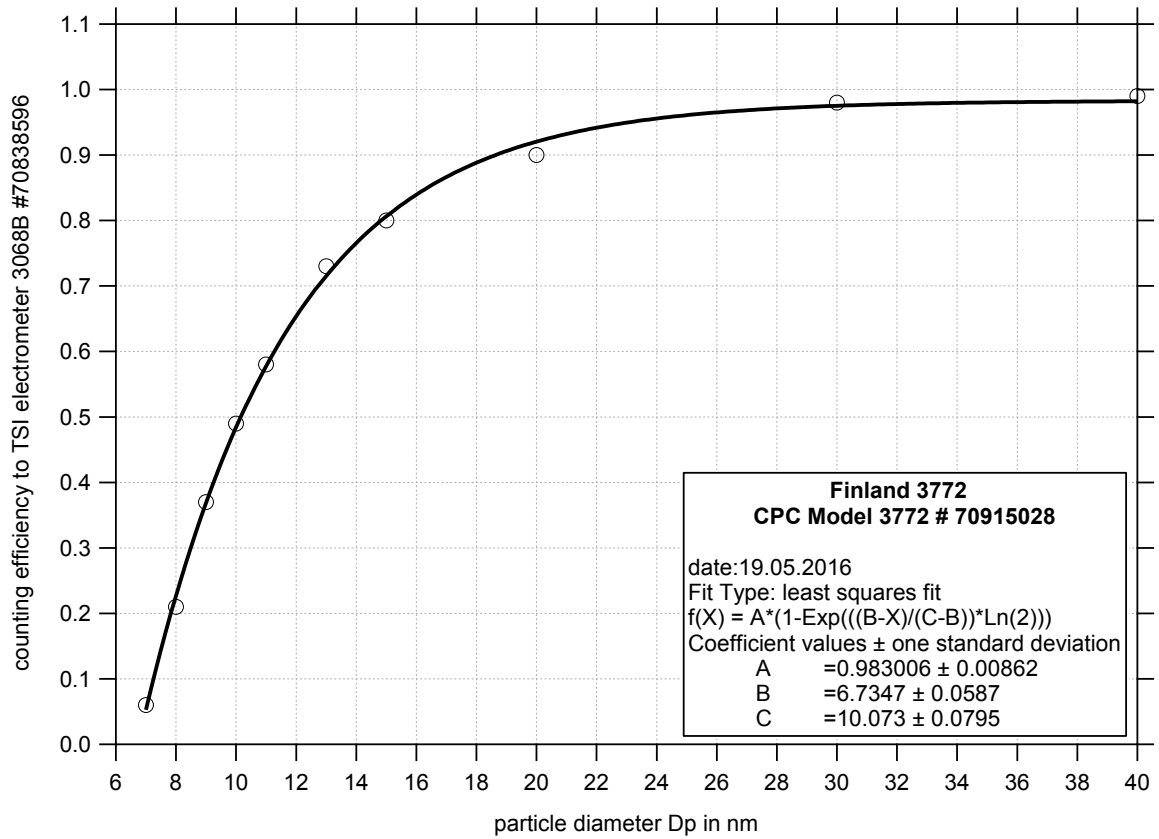
On May 19, 2016, the FI-Helsinki\_ARR\_3772\_SN70915028 participated in the TROPOS ACTRIS-2 CPC-Workshop.

1. Status of the wick: The wick was clean.
2. Status of the CPC: The CPC was working properly.
3. Final CPC-Workshop: The TSI CPC Model 3772 reached 99% efficiency at 40 nm. The Dp50 is at 10.1 nm. The CPC efficiency curve corresponds to the standard.

## **final-status: 19.05.2016**

Status	Finland_3772_SN70915028
T SAT	39,0
T CON	23,5
T OPT	40,0
T CAB	30,4
P AMB	98,2
P OR	77,8
P NO	2,6
LASER	40mA
LV	full

Dp in nm	counting efficiency
40	0.99
30	0.98
20	0.90
15	0.80
13	0.73
11	0.58
10	0.49
9	0.37
8	0.21
7	0.06



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



**Physikalisch-Technische Bundesanstalt  
Braunschweig und Berlin**  
Nationales Metrologieinstitut



## Kalibrierschein Calibration Certificate

**Gegenstand:** Aerosol Elektrometer  
*Object:* ID-Nummer: TSI\_3068B\_70838596

**Hersteller:** TSI Incorporated  
*Manufacturer:*

**Typ:** 3068B  
*Type:*

**Kennnummer:** 70838596  
*Serial No.:*

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

**Anzahl der Seiten:** 4  
*Number of pages:*

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

**Kalibrierzeichen:** 20790 PTB 16  
*Calibration mark:*

**Datum der Kalibrierung:** 22.04.2016  
*Date of calibration:*

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

**Im Auftrag:**  
*On behalf of PTB:*

391 00B n

Dr. B. Schumacher

**Siegel**  
*Seal*



C. Rohrig

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