

## Intercomparison of Condensation Particle Counter

Project No.: CPC-2016-3-5

### Basic information:

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

**Delivery date:** -

**Setup in the laboratory:** April 26, 2016

**Comparison period:** April 26, 2016

| Principal Investigator | Home Institution  | Participant | Instrument   |
|------------------------|---|-------------|--|
| Markus Wallasch        | UBA<br>Wörlitzer Platz1<br>06844 Dessau-Roßlau<br>GERMANY | -           | DE-UBA total CPC Zugspitze<br>TSI CPC Model 3010<br># 2462 |

**TROPOS Reference Instrument:** Electrometer: TSI model 3068B  
# 3068133002  
Last calibration in April 2016

### **Additional Equipment:**

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

### Summary of Intercomparison:

**Pre-status:**

The TSI CPC Model 3010 was in good condition.

**Final status:**

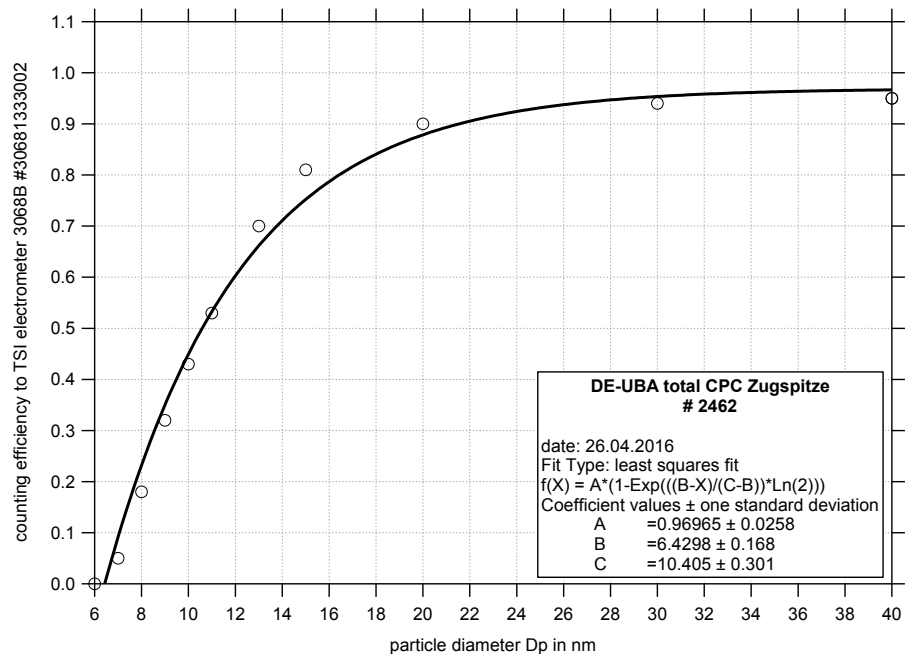
The TSI CPC Model 3010 passed the quality standards of ACTRIS and GAW.

On April 26, 2016, the DE-UBA total CPC Zugspitze 3010 #2462 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 95% efficiency at 40 nm. The Dp50 is at 10.4 nm. The CPC efficiency curve corresponds to the standard.

**pre-status: 26.04.2016**

| Dp in nm | counting efficiency |
|----------|---------------------|
| 40       | 0.95                |
| 30       | 0.94                |
| 20       | 0.9                 |
| 15       | 0.81                |
| 13       | 0.7                 |
| 11       | 0.53                |
| 10       | 0.43                |
| 9        | 0.32                |
| 8        | 0.18                |
| 7        | 0.05                |
| 6        | 0                   |



**Figure 01:** CPC efficiency curve. Based on Electrometer TSI 3068B. Serial number: 30681333002