



Intercomparison of Condensation Particle Counter

Project No.: CPC-2015-1-1

Basic information:

Location of the quality assurance: TROPOS, lab: 130

Delivery date: October 05, 2015

Setup in the laboratory: October 06, 2015

Comparison period: October 06, 2015; January 11, 2015

Principal Investigator	Home Institution	Participant	Instrument
Raymond Ellul	Atmospheric Research Group Geosciences department University Gozo Campus Mgarr Road, Xewkija, Gozo. Malta	David Munaò	TSI CPC Model 3772 # 71021256

TROPOS Reference Instrument: Electrometer: TSI model 3068B
70838596

Additional Equipment:

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

Summary of Intercomparison:

Pre-status:

The TSI CPC 3772 was in good condition. After 2 weeks, the CPC 3772 was broken. Repair by TSI was necessary.

Final status:

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

On October 06, 2015, the Malta TSI-CPC 3772 participated in the TROPOS ACTRIS-2 CPC-Workshop.

During the pre-status, the internal CPC-Status were checked and the wick was cleaned. After two weeks the Malta TSI-CPC 3772 showed problems in the MPSS system. The final MPSS-workshop was successful after TSI repaired it.

1. Status of the wick: The wick was cleaned, because it was dirty.
2. Status of the CPC: The CPC was not working properly. It was necessary to send it to TSI for repair.
3. Final CPC-Workshop: The CPC 3772 reached 100% efficiency at 30 nm. The Dp50 is at 7.9 nm. The CPC efficiency curve corresponds to the standard.

Pre-status: 06.10.2015, Tuesday

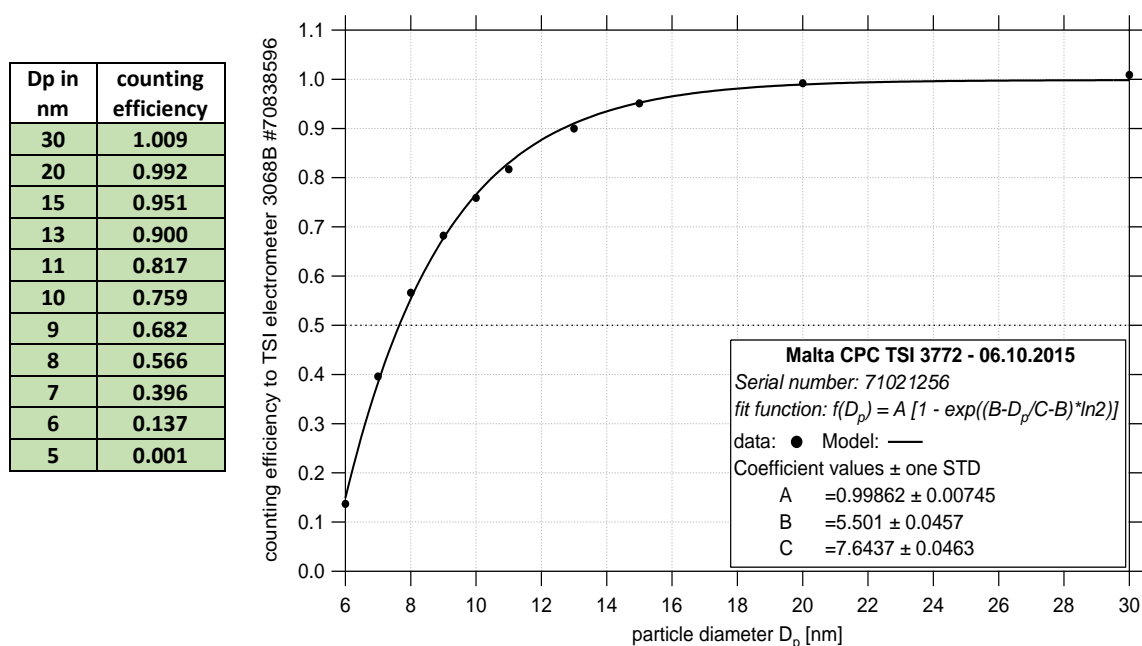


Figure 01: CPC efficiency curve. Based on Electrometer TSI 3068B. Serial number: 70838596

final-status: 11.01.2016, Monday

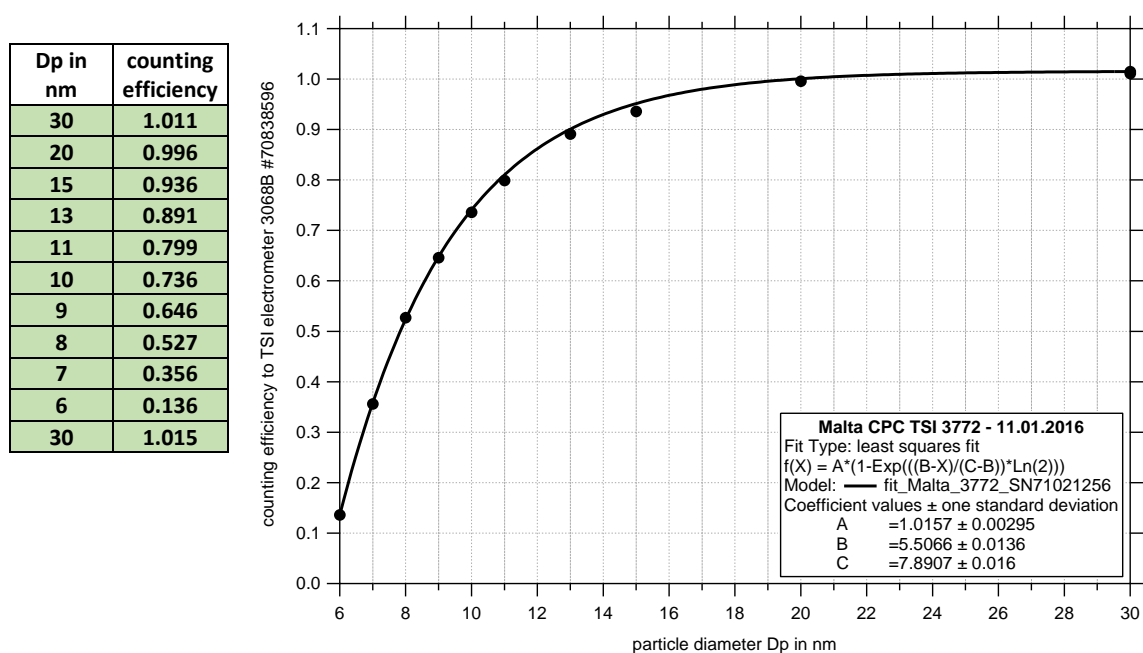


Figure 02: CPC efficiency curve. Based on Electrometer TSI 3068B. Serial number: 70838596