

## CCT member and observer Activity Report

**Period:** 2020-2022

**Institute:** Justervesenet

**State economy:**

**Number of persons involved in thermometry of the institute:**

5

### Short summary of research and development:

ATM: Air temperature metrology project in Euramet, pilot laboratory and coordinator  
 Air temperature set up, chamber in chamber after input from RMG in the EURAMET EMPIR project Humea  
 Primary dew point generator development in hygrometry lab  
 Participating in MetForTC: development of triple-type thermometer (type N and S thermocouple and optical fibre)

### Short summary of recent comparison activity:

Euramet 1459 Air Temperature Metrology  
 EURAMET.T-K9.1 Bilateral comparison of ITS-90 SPRT Calibration from Hg to Zn (completed)  
 EURAMET.T-K9 ITS-90 SPRT from Ar to Zn  
 Euramet 1268 Comparison of calibration of thermocouples from Zn (completed)

### Short summary of other activities:

Initiating purchasing process for open fixed point cells

### Link to bibliography or list of bibliography (last 5 years):

Åge Andreas Falnes Olsen, Karsten Opel and Kristjan Tammik, EURAMET-T.K9.1 bilateral comparison of ITS-90 SPRT calibration from the Hg TP to Zn FP, Metrologia, Volume 57, Number 1A, <https://doi.org/10.1088/0026-1394/57/1A/03001>

Åge Andreas Falnes Olsen, Reidun Anita Bergerud, Karsten Opel. "The traceability of a multispectral and multisensor optical sapphire fiber thermometer". Oral presentation på TEMPMEKO 2019, 12. juni 2019, Chengdu, Kina.

R Maury, A Strzelecki, C Auclercq, Y Lehot, S Loubat, J Chevalier, F Ben Rayana, Å A F Olsen and G Chupin (2018). "Cryogenic flow rate measurement with a laser Doppler velocimetry standard". Meas. Sci. Technol. 29 034009, doi:10.1088/1361-6501/aa9dd1

Å. A. Falnes Olsen, H. Mathisen, S. Simonsen: "An investigation into a calibration scheme for a light pipe based temperature probe" Vol 29, 11, 2018 Meas. Sci. Technol. <https://doi.org/10.1088/1361-6501/aade6f>