

A*STAR NMC Publication in thermometry 2024 – 2026

Contact Thermometry

- Fan Yan & Li Wang, "A novel surface calibrator using heat pipe for surface probe calibration", AIP Conf. Proc. 3230, 110005 (2024), <https://doi.org/10.1063/5.0234093>
- Karalikkadan Ashhar a, Fan Yan, Cui Shan, "DATA-DRIVEN CALIBRATION OF TEMPERATURE SENSORS FOR MONITORING AND CONTROL OF INJECTION MOLDING MACHINE" XXIV IMEKO World Congress, August 26 □ 29, 2024, Hamburg, Germany
- ÅgeAndreas FalnesOlsen –JV, etc, "The CIPM CCT Working Group Environment activities", 1st Stakeholder Meeting of the CIPM Sectorial Task Group on Climate Change and Environment, 16-18 September 2024, (France).
- F Jahan, etc, Final report on the APMP regional comparison of type R thermocouples calibration at Cu, Co-C and Pd fixed points, APMP.T-S16, 2025 Metrologia 62 03003. DOI 10.1088/0026-1394/62/1A/03003.
- Shaochun Ye, "Dynamic Measurement and Control for Energy-Efficient Self-Heating Ammonia Cracking to Hydrogen.", APMP EEFG, South Korea, 2025. Conference poster.
- Shaochun Ye and Wenxi Xiong, "Dynamic Measurement and Control for Energy-Efficient Self-Heating Ammonia Cracking with Integrated Waste Heat Recovery", Singapore Scientific Conference, 2025. Conference poster.
- Fan Yan, Wang Li, Digital Thermometer Calibration and Measurement caveats, 2026 (Paper review in progress)

Radiation Thermometry

- Li Wang & Fan Yan, "Long-term stability of InGaAs radiation thermometer", AIP Conf. Proc. 3230, 100001 (2024), <https://doi.org/10.1063/5.0234044>
- X Lu, C Bai, A Manoi, N Sasajima, Y S Yoo, L Wang, CH Goh, H Y Ko, J Cheung, H Wiriadinata, A Achmadi, N M Samiudin and H Othman, "Comparison of blackbody for clinical infrared ear thermometers", 2024 Metrologia 61 03009, DOI 10.1088/0026-1394/61/1A/03009

Humidity

- Wang Li, Upgrading Humidity Generators from -95 °C Frost Point to +95 °C Dew Point in NMC, A*STAR , 2026 (Paper review in progress)

Key/Supplementary Comparison Report (NMC as Participant)

(Ongoing or recently completed)

- APMP.T-K7.2021.1, Comparison of Water Triple Point Cells, Measurement in progress
- APMP.T-K4.2, Realization of the aluminium freezing-point temperature, Approved for equivalence (2026), <https://doi.org/https://doi.org/10.59161/ZHMZ7323>
- APMP T.K9, SPRT Calibration from Ar TP to Zn FP, Draft A distributed
- CCT K6, Low dew point comparison. Technical protocol in review.
- APMP.T-S11/S12, Radiation Thermometer in Fixed Points, Draft A in progress
- APMP S14, Relative humidity, Draft A distributed
- APMP S16, Thermocouple calibration, Draft B published.
- APMP.T-S17, Air Thermometers, Measurements completed, Draft B submitted.
- APMP pilot study on triple point of CO₂, in progress.
- CCT Key Comparison in body temperature calibrator, NMC completed measurement completed.
- Comparison of Thermal Imager under TCI project, in progress.
- APMP T-H4, Hybrid Comparison on High Dew Point measurement, completed.

Key/Supplementary comparison piloted by NMC

(Ongoing or recently completed)

- APMP.T-K6.2013, comparisons on frost/dew point temperature (-50 to +20) °C, Draft A report in progress
- APMP.T-S13, comparisons on frost/dew point temperature (-80 to -60) °C, Draft B report sent to CCT WG on key comparison for approval
- APMP pilot study on black globe thermometer under TCI project, in progress.
- APMP TCI project, comparison of thermal imager for body temperature screening according to SS582, measurement in progress