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Univerza v Ljubljani
Fakulteta za elektrotehniko
Katedra za merjenja in robotiko

University of Ljubljana
Faculty of Electrical Engineering
Department of Measurements and Robotics

CCT/2022-36rev

CCT WG-CMC activities

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WG CMC ToR

- to establish and maintain lists of service categories and, where necessary, rules for the preparation of CMC entries;
- to agree on detailed technical review criteria;
- to coordinate and, where possible, conduct inter-regional reviews of CMCs submitted by RMOs for posting in Appendix C of the CIPM MRA;
- to provide guidance on the range of CMCs supported by particular key comparisons;
- to examine the sufficiency of existing comparisons for supporting CMC submissions and to recommend new comparisons where deemed necessary; and
- to coordinate the review of existing CMCs in the context of new results of key and supplementary comparisons.

The CCT-WG-CMC is tasked to draft and update CMC review protocols, to review fast-track submissions for inclusion in the KCDB Appendix C, and to identify new comparisons needed to support CMC submissions.

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WG CMC Members

- Dr Miltiadis Anagnostou, GULFMET TC-T Chair, EMI
- Dr Dolores del Campo Maldonado, EURAMET TC-T Chair, CIPM, CEM
- Dr Efrem Kebede Ejigu, AFRIMETS TC-T Chair, NMISA
- Prof. Anatolii Pokhodun, COOMET TC-T Chair, VNIIM
- Dr Andrew D. Todd, SIM TC-T Chair, NRC
- Dr Inseok Yang, APMP TC-T Chair, KRISS → December 2021 Dr Hishashi Abe

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Activities since last meeting

- Two new review protocols
  - CMC review protocol for infrared spectral emissivity measurements, coordinated by Leonard Hanssen (NIST)
  - CMC review protocol for thermal diffusivity measurements, coordinated by Megumi Akoshima (AIST-NMIJ)
- Activities on the „Specialized Fixed Points above 0 °C" – SMFPC – Action 4, last CCT meeting
- New CMC categories

7. Temperature – Items used for disseminating thermodynamic temperature

7.1 Radiation thermometry

7.1.1 Fixed-point blackbody cells and apparatus

7.1.2 Radiation thermometers

7.1.3 Variable temperature blackbody radiation sources

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Activities on the „Specialized Fixed Points above 0 °C“

Paragraph 4.1 – Sealed cells

Table 4 Recommended values for the standard uncertainties of uncertified sealed cells, due to the unknown pressure (source APPENDIX 1: Uncertainties in the realization of ITS-90 metal freezing points using sealed cells)

Fixed point	**In**	**Sn**	**Zn**	**Al**	**Ag**
Fixed-point temperature (K)	429.7485	505.078	692.677	933.473	1234.93
Recommended standard uncertainty due to the unknown pressure (k = 1) (mK)	0.7	0.7	1.7	4.5	4.5

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Future activities

- Number of changes will happen in near future, as a result of final reports of CCT K9 and supplementary RMO comparisons
  - New/updated CMCs directly linked to the comparisons
  - Changes in review protocols
  - Harmonization of CMC review process

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Thank you very much