Bureau International des Poids et Mesures

2017 CCT Meeting

Members: D.R. White (Chairman, MSL), W. Tew (NIST), M. Kalemci (UME), A. Ivanova (VNIIM), J. Sun (NIM), D. Del Campo (CEM), F. Jahan (NMIA), Y.G. Kim (KRISS), F. Edler (PTB), J. Pearce (NPL), M. Heinonen (MIKES), J. Tamba (NMIJ), E. Filipe (IPQ), L. Iacomini (INRiM), E. Mendez (CENAM), S. Duris (SMU)
Co-opted: Ferdouse Jahan (NMIA), Karen Garrity (NIST), Hideki Ogura (NMIJ), Emile Webster (MSL), Davor Zvizdic (HMI), Steffen Rudtsch (PTB)

Terms of reference: To promote good thermometry practice and traceability to the SI by **preparing and publishing guides on thermometry, with a focus on secondary thermometry**. The guides should include techniques, thermometers, instrumentation, and uncertainty analyses for traceable temperature measurements.

Tasks:

- Revise and replace the Bluebook.
- Maintain a list of temperatures and uncertainties for secondary fixed points.
- Revise the CCT/08-19rev, the guide on Uncertainty in the SPRT subranges of ITS-90.



What we have done since the last CCT?

Preparation of the guides on secondary thermometry \Rightarrow substantial progress made on the Guide to Specialised Fixed Points and two thermocouple guides

Meeting in Zakopane 1st July 2016 with discussions on:

- The purposes of the guides
- Authorships
- Max. number of guides to be developed at the same time
- Continuation of Rod White as TG chair
- Progress on Guides on Thermometry....

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The Guides

- □ **Thermistor Thermometry:** last edition August 2014.
- □ Specialised Fixed Points above 0 °C: online shortly.
- Thermocouple Thermometry: interrupted by urgent requests for a guide covering reference thermocouples to support international comparisons and accreditation of thermocouple calibration capabilities. Finally 2 guides will be issued:
 - General thermocouple thermometry
 - Reference thermocouple thermometry
- Industrial Platinum Resistance Thermometry: after the publication of the FP guide this will become a priority.
- □ Calibration Media: after the publication of the thermocouple guide this will become a priority.
- □ **Radiation Thermometry**: waiting for the completion of the primary radiometry uncertainties guide by the CCT WG-NCTh



The list of temperatures and uncertainties for secondary fixed points

Data base on the CCT web page close to the Guide on Specialised Fixed Points. Final form of the data base and the protocol to include new entries to be determined.

The revision of the document CCT/08-19rev

• Promted by Ms Sonia Gaiță letter. After that a detailed scientific review of CCT/08-19rev was carried out (with some delay due to the re-organization of CCT) and identified several areas requiring major revisions or additions.

• After some discussion, the TG decided a minimal and quick revision to CCT/08-19rev addressing as many of Ms Gaiță's concerns.

• The revision could not take place immediately because of members' commitments to other projects, and is probably best left until sometime well after the revised Supplementary Information has been published to avoid confusion with two docs published at the same time.

• Full revision to be considered in the future but according to the TG ToR maybe the revision should be carried out by the WG CTh