

EXPLANATORY NOTE

for the 3rd CD of Recommendation

"Blackbody radiators for the calibration of radiation thermometers".

This version of the draft Recommendation was worked out on the basis of the comments received on the 2nd CD draft.

The reworked draft also takes into account the recommendations from the Consultative Committee on Temperature (CIPM CCT) documents developed for the purpose of ensuring the consistency in evaluating the precision characteristics of measurement methods and instruments used in the field of radiation thermometry.

Attention was given to the importance of establishing the traceability of the calibration of the absolute black body test source to national standards and to the International Temperature Scale (ITS-90).

The contents of the draft is formalized as much as possible in order to avoid the specifics and the levels of values of estimates of the metrological characteristics adopted in different countries. This Recommendation is intended to suggest application areas and test methods for the absolute black body radiators used to calibrate and test radiation thermometers and does not mean for establishing numerical criteria to evaluate the adequacy of radiators. Preserved were mainly their qualitative characteristics.

The developers was not agree with the suggestion of the National Metrology Institute of Japan (NMIJ) to restrict the scope of this Recommendation to a cavity type blackbody radiators with variable temperature only, because the applications and the test methods are similar for radiators of all types, including radiators with black surface and radiators with the temperature of phase transitions in pure metals.

The developers propose to remove from the title of the Recommendation the specification of the measurement range. By analogy with Recommendation R48 "Tungsten ribbon lamps for the calibration of radiation thermometers" this one could be entitled "Blackbody radiators for the calibration of radiation thermometers". The participants are welcome to give their consent to this proposal.