EUROMET PROJECT FINAL REPORT

Ref. No.: 391
 Z. Subject Field: Thermometry

Type of collaboration:
INTERCOMPARISON OF MEASUREMENT STANDARDS

4A. Partners:

BEV, SMD, OFMET, CMI, PTB, DTI, CEM, MIKES, BNM-INM, NPL, IMGC, NMI, JV, IPO, SP, NMI, SMU, FE-LMK, UME, EIM

4B. CEC funded?

No

Participating countries:

AT, BE, CH, CZ, DE, DK, ES, FI, FR, GB, IT, NL, NO, PT, SE, IE, SK, SL, TR, GR

Title:

INTERCOMPARISON OF THE FREEZING POINT OF INDIUM

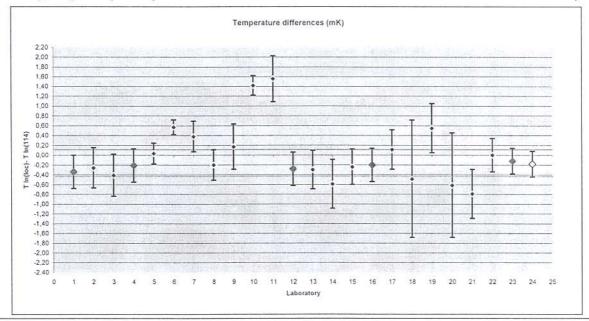
7. Progress:

The main objective with this intercomparison was to establish the agreement between the results from different participating laboratories, to clear up the possible discrepancies and to develop an improved procedure for realization and determination of the freezing point of indium.

One transfer Indium cell (In 114) together with one furnace has been circulated to the national laboratories listed under 4.A. The reference laboratory (BNM-INM) has verified the stability of the indium cell in March 1997, January 1998, February 1999, July 2000 and January 2002 and the results have been reported to co-ordinator.

All the laboratories have reported their results; many laboratories reported also the calibration data for the SPRTs used for measurements, which enable us to study the agreement between the measured value at indium freezing point and the calculated values from the calibration at water triple point and the freezing point of tin and zinc.

Following diagram shows the preliminary results, the red points are the measurements performed by the reference laboratory, the yellow point represents the mean of the reference measurements with the associated uncertainty.



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9. Completion date: February 2002 10. Coordinator's signature: CR 11. Date: 05.04.02