

Presentation on metrological condition of the RSE “KazInMetr”

Dear colleagues,

Let me present a short report on metrological condition of Kazakhstan.

At present, the reference base of the Republic of Kazakhstan includes 101 units, 58 - national standards, 23 - working standards, 20 - standard equipment.

In accordance with the State program of forced industrial-innovative development of Kazakhstan for 2010-2014 in 2011, there were equipped the following 10 standards:

- the units of electrical conductivity
- the coordinate of color and chromaticity
- standard of length from 0.1 to 100 mm
- standard of time and frequency
- unit of temperature on the radiation
- standard on the fluid flow
- standard of hardness on scales of Vickers
- the units of mole fraction of components in gaseous atmosphere
- the unit of luminous intensity
- the unit of inductance.

In 2012, we have been scheduled to upgrade another 10 state standards.

Under COOMET for the period from 2010 to 2012 we took part in eight international key and supplementary comparisons of standards.

Also within the Advisory Committee of the International Committee of Weights and Measures CIPM our institute took part in the key comparison CCL-K11 «Comparison of the optical standards of frequency and wavelength.»

In 2012, we are planning 7 comparisons under COOMET.

- "Comparison of interferometric measurement systems for tapes up to 20 m";
- "The key comparisons - COOMET.QM-K36" Electrolytic conductivity of 0.5 S / m²;
- "Additional comparisons in measuring the mass fraction of moisture in the grain and grain products";
- "Regional comparisons of S-type thermocouples in the temperature range from 300 to 1100 ° C";
- "Regional comparisons of ampoules of copper for contact thermometry"
- "Multiple and sub-units of pounds"
- «Refractive Index. Supplementary Comparison »

However, it should be noted that there are problems on closing of individual comparisons, for example:

1) «Key comparisons on the scales of Brinell and Vickers hardness," taken part in 2005.

2) «Comparisons of measurements of multiples and units of kilograms," taken part in 2008.

3) «Comparison of national standards of units of capacitance and dielectric loss tangent," taken part in 2008.

In our opinion, it is necessary to develop recommendations by the TC terms of consideration of the results of comparisons.

As a result, calibration and measurement capabilities (CMC) of Kazakhstan has got the official international recognition, by issuing of the 13 lines on the official website of the International Bureau of Weights and Measures.

In this case, let me express my gratitude to the national metrology institutes, namely Physics and Technology institute of Germany (PTB), VNIIMS, Belgim for scientific and technical cooperation in the field of metrology, which provided support in conducting metrological work of the Quality Management System (QMS).

In 2011 the Institute was taken part in almost all activities of COOMET and COOMET TC meetings, in 2012 it is provided for active participation also.

The institute has taken part in the 9th meeting of TC COOMET 1.5 "length and angle," which was held from 30 to 31 January this year in NICPV, MIPT, Dolgoprudny, Moscow region, in March was taken part in the meeting of the Forum for Quality and TC 3.1, "Quality Forum Technical Committee," where it was decided to hold an oral presentation of RSE "KazInMetr" in 2014, and in 2015 to hold an external evaluation of COOMET peer review.

In 2012 in Kazakhstan is scheduled to hold regular meetings:

- TC 1.11 "Time and frequency" COOMET, Astana;
- TC 1.3 "Electricity and Magnetism" COOMET, Astana;
- TC 1.10 "Thermometry and thermal physics", Almaty.

National Metrology Institute RSE "KazInMetr" intends to continue to participate not only in meetings, but also in the organization of meetings of technical committees COOMET in Astana, Almaty, Uralsk, on the base of our institute.

Thank you for the your attention!