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**ANNUAL REPORT**

**on the activities of JCMS (Joint Committee of Measurement Standards)   
in 2018**

The first part of the report contains a summary of the activities of the JCMS for 2018. Detailed information is given in the reports of the chairs of the subcommittees of TC 1.1 - TC 1.12

1. **Meetings of TC 1.1 -1.12**

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| --- | --- |
| **ТC** | **Time and venue** |
| **ТC 1.1** | - |
| **ТC 1.2** | 17–19 September 2018, Gebze, Turkey |
| **ТC 1.3** | 16–17 October 2018, Baku, Azerbaijan |
| **ТC 1.4** | 5 September 2018, Kazan, Russia |
| **ТC 1.5** | 11–12 December 2018, Kharkiv, Ukraine |
| **ТC 1.6** | 28–30 August 2018, Sarajevo, Bosnia and Herzegovina |
| **ТC 1.7** | 4–6 September 2018, Havana, Cuba |
| **ТC 1.8** | 23–24 May 2018, Saint-Petersburg, Russia |
| **ТC 1.9** | 18–20 September 2018, Saint-Petersburg, Russia |
| **ТC 1.10** | 11–12 September 2018, Tbilisi, Georgia |
| **ТC 1.11** | 22–23 March 2018, Moscow, Russia |
| **ТC 1.12** | 14–15 September 2018, Ekaterinburg, Russia |

1. **COOMET projects completed in 2018**

| No | COOMET project /KCDB ID | Name | Pilot | Participants |
| --- | --- | --- | --- | --- |
| 1 | **655/RU-a/15** | Pilot study on pH measurement of phosphate buffer (pH ~ 7.0). | **VNIIFTRI** | VNIIFTRI VNIIM UNIIM Chuvash CSM Rostov CSM Ryazan СSM Chelyabinsk CSM Nizhny Novgorod CSM Moscow region CSM UralTest  BelGIM  РТВ  GEOSTM KazInMetr ECM at ME KR NMI (MD) TÜBITAK UME  SE "Ukrmetrteststandard" |
| 2 | **696/RU/16** | Pilot comparisons in the field of measuring the mass fraction of silver and gold in epithermal gold ore | **UNIIM** | |  |  | | --- | --- | |  | BelGIM  UNIIM  CENTRAL GEOLOGICAL LABORATORY, Mongolia | |
| 3 | **678/RU/15 COOMET.QM-K111** | Key comparison of national measurement standards in the field of analysis of gas mixture of C3H8 in nitrogen | **VNIIM** | BelGIM KazInMetr SE "Ukrmetrteststandard" VNIIM |
| 4 | **707/RU-a/16 COOMET.EM-S21** | Bilateral comparisons of reference switching impulse voltage measuring systems in the range from 1 to 100 kV | **VNIIMS** | PTB VNIIMS |
| 5 | **512/RU-a/10 COOMET.M.T-S1** | Supplementary bilateral comparison of national standards of torque | **UNIIM** | PTB UNIIM |
| 6 | **672/RU/15** | Pilot comparisons in the field of measuring the mass fraction of iron in iron | **UNIIM** | UNIIM  VNIIOFI SE "Ukrmetrteststandard BelGIM |
| 7 | **650/RU/14** | Pilot comparisons in the field of metals mass fraction measurements (Al, As, Ca, Mg, Pb, Sb, Au, Ag, Ni) in slag (Part II) | **UNIIM** | UNIIM SE "Ukrmetrteststandard BelGIM |
|  | **724/RU-a/17** | Study of liquids of manometers - primary pressure standards |  |  |
|  | **759/RU-a/18** | Organization and conducting the 23rd meeting of COOMET Technical Committee 1.12 "REFERENCE MATERIALS" (TC 1.12 "RMs") |  |  |
|  | **713/UA/16** | The practical training of the specialists in the field of mass and related quantities within BIPM Capacity Building and Knowledge Transfer program (CBKT) |  |  |
|  | **633/KG/14** | Development of COOMET recommendations "Calibration of resistance thermometers by comparison method" |  |  |
| 8 | **686/MD-a/16 COOMET.EM-S20** | Bilateral comparison of 1.018 V and 10 V Zener DC voltage reference standards | **NMI (MD)** | NMI (MD) PTB |
| 9 | **623/RU-a/13** | Bilateral comparisons of national standards of the energy of combustion by means of solid and liquid fuels | **VNIIM** | BelGIM VNIIM |
|  | **577/RU-a/12 COOMET.PR-S6** | Comparison on Fibre Optic Power Responsivity | **VNIIOFI** | BelGIM  PTB  VNIIOFI |

Distribution of number of projects completed by the TC is shown in the diagram. The results are presented on the basis of information contained in web-site comet.org for calendar year 2018. Considered those projects for which final reports are presented.

1. **COOMET’s participation in the inter-regional review of CMCs**

| № | СМС | Metrology area | RMO | Status | Last update |
| --- | --- | --- | --- | --- | --- |
| 1 | AFRIMETS.AUV.5.2017 | Acoustics, Ultrasound, Vibration | AFRIMETS | Published in BIPM KCDB | 14.03.2018 |
| 2 | AFRIMETS.AUV.6.2018 | Acoustics, Ultrasound, Vibration | AFRIMETS | Published in BIPM KCDB | 25.09.2018 |
| 3 | AFRIMETS.M.6.2018 | Mass and related quantities | AFRIMETS | Published in BIPM KCDB | 03.09.2018 |
| 4 | AFRIMETS.T.5.2018 | Thermometry | AFRIMETS | Published in BIPM KCDB | 16.07.2018 |
| 5 | AFRIMETS.T.6.2018 | Thermometry | AFRIMETS | Published in BIPM KCDB | 18.10.2018 |
| 6 | APMP.AUV.14.2018 | Acoustics, Ultrasound, Vibration | APMP | Review still in progress | 25.06.2018 |
| 7 | APMP.M.45.2018 | Mass and related quantities | APMP | Review still in progress | 22.10.2018 |
| 8 | APMP.M.46.2018 | Mass and related quantities | APMP | Review still in progress | 15.11.2018 |
| 9 | APMP.T.14.2018 | Thermometry | APMP | Published in BIPM KCDB | 27.02.2018 |
| 10 | APMP.QM.30.2018 | Amount of Substance | APMP | Published in BIPM KCDB | 26.09.2018 |
| 11 | APMP.T.15.2018 | Thermometry | APMP | Published in BIPM KCDB | 05.12.2018 |
| 12 | EURAMET.AUV.17.2017 | Acoustics, Ultrasound, Vibration | EURAMET | Published in BIPM KCDB | 17.01.2018 |
| 13 | EURAMET.AUV.18.2018 | Acoustics, Ultrasound, Vibration | EURAMET | Not approved | 05.12.2018 |
| 14 | EURAMET.AUV.19.2018 | Acoustics, Ultrasound, Vibration | EURAMET | Published in BIPM KCDB | 25.07.2018 |
| 15 | EURAMET.M.54.2017 | Mass and related quantities | EURAMET | Published in BIPM KCDB | 31.01.2018 |
| 16 | EURAMET.M.56.2018 | Mass and related quantities | EURAMET | Published in BIPM KCDB | 03.07.2018 |
| 17 | EURAMET.M.57.2018 | Mass and related quantities | EURAMET | Published in BIPM KCDB | 23.10.2018 |
| 18 | EURAMET.M.59.2018 | Mass and related quantities | EURAMET | Published in BIPM KCDB | 09.10.2018 |
| 19 | EURAMET.PR.13.2018 | Photometry and Radiometry | EURAMET | Not approved | 18.07.2018 |
| 20 | EURAMET.PR.14.2018 | Photometry and Radiometry | EURAMET | Published in BIPM KCDB | 03.09.2018 |
| 21 | EURAMET.PR.15.2018 | Photometry and Radiometry | EURAMET | Published in BIPM KCDB | 12.11.2018 |
| 22 | EURAMET.QM.32.2017 | Amount of Substance | EURAMET | Published in BIPM KCDB | 05.01.2018 |
| 23 | EURAMET.QM.33.2018 | Amount of Substance | EURAMET | Published in BIPM KCDB | 28.06.2018 |
| 24 | EURAMET.RI.30.2017 | Ionizing Radiation | EURAMET | Published in BIPM KCDB | 09.01.2018 |
| 25 | EURAMET.T.23.2018 | Thermometry | EURAMET | Published in BIPM KCDB | 03.12.2018 |
| 26 | EURAMET.TF.11.2018 | Time and Frequency | EURAMET | Review still in progress | 30.11.2018 |
| 27 | EURAMET.TF.12.2018 | Time and Frequency | EURAMET | Review still in progress | 30.11.2018 |
| 28 | EURAMET.TF.13.2018 | Time and Frequency | EURAMET | Review still in progress | 22.11.2018 |
| 29 | SIM.M.37.2017 | Mass and related quantities | SIM | Published in BIPM KCDB | 04.05.2018 |
| 30 | SIM.M.39.2018 | Mass and related quantities | SIM | Review still in progress | 23.11.2018 |
| 31 | SIM.QM.24.2018 | Amount of Substance | SIM | Published in BIPM KCDB | 02.07.2018 |
| 32 | SIM.T.10.2016 | Thermometry | SIM | Not approved | 27.02.2018 |

Distribution of the number of TCs participating in the inter-regional expertise. The results are presented on the basis of information contained in web-site the bipm.org for calendar year 2018

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1. **СМС published in BIPM KCDB**

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| --- | --- | --- | --- |
| СМС | Metrology area | Country | NMI |
| [COOMET.QM.28.2018](https://www.bipm.org/JCRBCMCs/ShowCMCentry.jsp?CMC=COOMET.QM.28.2018) | QM | KZ  BY  RU  UA | KazInMetr  BelGIM  VNIIM  Ukrmetrtest-standart |
| [COOMET.M.31.2018](https://www.bipm.org/JCRBCMCs/ShowCMCentry.jsp?CMC=COOMET.M.31.2018) | M | AZ | AZMI |
| [COOMET.M.30.2017](https://www.bipm.org/JCRBCMCs/ShowCMCentry.jsp?CMC=COOMET.M.30.2017) | M | RU | VNIIM |
| [COOMET.M.29.2017](https://www.bipm.org/JCRBCMCs/ShowCMCentry.jsp?CMC=COOMET.M.29.2017) | M | KZ | KazInMetr |
| [COOMET.EM.13.2017](https://www.bipm.org/JCRBCMCs/ShowCMCentry.jsp?CMC=COOMET.EM.13.2017) | EM | KZ  BY | KazInMetr  BelGIM |

A. Chunovkina

JCMS Chairperson