



**MINUTES  
of the 22<sup>nd</sup> COOMET  
TC 1.12 “Reference Materials” meeting**

12-13 September, 2017  
Kazan, Russia



**Secretariat of COOMET TC 1.12 “RMs”**

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## **PARTICIPANTS:**

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### **From Germany**

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### **From Kazakhstan**

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Representative from Kazakhstan

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### **From Moldova**

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### **From Russia**

Sergey Medvedevskikh

**Chairman of COOMET TC 1.12 “RMs”**,

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Olga Kremleva

**Deputy Chairman of COOMET TC 1.12 “RMs”**,

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**COOMET Project Coordinator**

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Olga Fatina	<b>Representative of COOMET TC 1.8 “Physical Chemistry”</b> , All-Russian D.I. Mendeleev Research Institute for Metrology, Leading engineer, St. Petersburg
Taliya Lygina	<b>COOMET Project Coordinator</b> , Deputy Director for Science, Central Scientific Research Institute of Geology of Industrial Minerals, Kazan
Olga Ilyicheva	<b>COOMET Project Coordinator</b> , Central Research Institute of Geology of Industrial Minerals, Head of the Testing Laboratory “MinAnalit” Kazan
Larisa Kashevarova	Leading metrology engineer Federal State-Funded Institution “CSM Tatarstan” Kazan
<b><u>From Slovakia</u></b> Zuzana Ďurišová	<b>Contact Person from Slovakia in COOMET TC 1.12 “RMs”</b> , Research worker, Head of Chemistry Department, Slovak Institute of Metrology, Bratislava
<b><u>From Ukraine</u></b> Andrey Glebov	Representative from Ukraine to the 22 <sup>nd</sup> meeting of COOMET TC 1.12 “RMs”, GP “Ukrmetrteststandart” Scientific and Production Institute No 2 Director Kiev

**CHAIRMAN:**

Sergey Medvedevskikh	Chairman of COOMET TC 1.12 “RMs”
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## THE OUTCOME OF THE MEETING AND ADOPTED RESOLUTIONS

### *Opening of the meeting*

Mr. Medvedevskikh, Chairman of COOMET TC 1.12 “RMs”, opened the meeting. He greeted the Contact Persons of TC 1.12 and the experts in the area of RMs from COOMET member-countries and international organizations, taking part in the meeting, expressed his hope for fruitful cooperation and constructive results and wished the participants of the meeting successful and fruitful work.

### **Agenda item 1: Roll-call of the participants**

Heads of the delegations identified themselves and the members of their delegations.

### **Agenda item 2: Adoption of the agenda**

Following the discussion, the agenda was agreed and adopted ([Annex 2](#)).

### **Agenda item 3: Activities conducted by RM national bodies in the countries (presentation of information in the offered form).**

At the meeting the participants exchanged information on the progress, challenges, and the most important events and actions in the activity on reference materials in Belarus, Germany, Kazakhstan, Moldova, Russia, Slovakia and Ukraine.

The information in written form was presented by the Contact Persons from Belarus, Kazakhstan, Russia, Moldova, Slovakia ([Annex 3](#)).

#### **The decision was taken as follows:**

To take the information into account.

### **Agenda item 4: Information on RM activities within international organizations ISO/REMCO, OIML TC 3/SC 3, NTKMetr WG RM, COOMET TC 1.8 “Physical Chemistry”**

Under this item the contributions and presentations were made as follows:

- The activities of ISO/REMCO - Mr. Bremser, Germany;
- The activities of OIML TC 3/SC 3 - Ms. Kremleva, Russia;
- The activities on RMs in NTKMetr WG RM of CIS Interstate Council  
Ms. Kremleva, Russia;
- The activities of COOMET TC 1.8 “Physical Chemistry” - Ms. Fatina, Russia.

#### **The decision was taken as follows:**

To express gratitude to the reporters for interesting presentations and to take into account the information on the activities of ISO/REMCO, OIML TC3/SC 3, NTKMetr WG RM of CIS Interstate Council, COOMET TC 1.8 “Physical Chemistry” ([Annex 4](#)).

### **Agenda item 5: Information on the 15<sup>th</sup> COOMET JCMS meeting and the 27<sup>th</sup> COOMET Committee meeting**

Mr. Medvedevskikh informed the participants on the outcome and main decisions taken at the 15<sup>th</sup> meeting of COOMET Joint Committee on Measurement Standards and the 27<sup>th</sup> meeting of COOMET Committee with particular emphasis on the issues related to RM problem ([Annex 5](#)).

#### **The decision was taken as follows:**

1. To take the information into account.

***Agenda item 6: Information of TC 1.12 Secretariat on the progress of the projects on RMs for the current period***

Ms. Kveglis presented information on behalf of TC 1.12 Secretariat concerning the progress of the projects on RM problem, carried out in the framework of COOMET Programme of Works (*Annex 6*).

**The decision was taken as follows:**

1. To take the information into account.

***Agenda item 7: Discussion of the progress of the projects on COOMET CRM development***

- 7.1 Project 358/RU/06 Development of CRMs of oxygenate volume (mass) fraction in petrol (3 types)***
- 7.2 Project 521/RU/11 Development of CRMs for composition of calcium and zinc in oils (3 types)***
- 7.3 Project 536/RU/11 Development of CRMs for sulphur microimpurities content in petroleum products (5 types)***
- 7.4 Project 537/RU/11 Development of CRMs of ultimate temperature of diesel fuel filterability on a cold filter (2 types)***
- 7.5 Project 538/RU/11 Development of CRMs of lead concentration in motor petrol (4 types)***
- 7.6 Project 539/RU/11 Development of CRMs of iron concentration in motor petrol (4 types)***
- 7.7 Project 617/RU/13 Development of CRM for composition of wolframite hubnerite concentrate (hard-alloy) – KVG(T)***
- 7.8 Project 619/UA/13 Development of CRMs of Guinean and Guyanese bauxites composition for chemical and X-ray diffraction analyses***
- 7.9 Project 620/UA/13 Development of CRM of disthene-sillimanite concentrate composition for chemical and spectral analyses***
- 7.10 Project 632/UA/14 Development of CRM for composition of raw milk main components (set)***

Ms. Kveglis presented brief information on the progress of the above listed projects on behalf of TC 1.12 Secretariat.

**The decision was taken as follows:**

1. To take into consideration the information on the progress of the projects.
2. To request the Project Coordinators to continue the work on the projects according to the scheduled stages of work.
3. To request the Project Coordinators to submit information on the progress of the projects to the next meeting of TC 1.12.
4. To request the Contact Person from Ukraine in TC 1.12 to submit information on the progress of the projects 619/UA/13, 620/UA/13, 632/UA/14 by **01.12.2017** for the preparation of the annual report of TC 1.12 .

***7.11 Project 648/RU/14 Development of CRM of mass fraction of metals in slag of copper smelting production (SHM)***

The Project Coordinator Mr. Sobina reported that the works on the development of RM of mass fraction of metals in slag of copper smelting production (SHM) have been finalized. The work was conducted by studying the values of certified characteristics. Mr. Sobina briefed on the content and methods of evaluating the results of the work performed, the information on which is given in the report.

The report and documentation on the RM have been sent in advance to the national bodies of COOMET member-countries for Contact Persons in TC 1.12 by e-mail (ref. No 25-10.6/4-3561 of 06.09.2017).

The laboratories from Belarus, Kazakhstan, Russia and Ukraine (8 laboratories in total) participated in experimental research. Unfortunately, the results were not obtained from Bulgaria and Turkey.

The Project Coordinator has noted positive results of the work performed, confirming the values of certified characteristics of the RM of mass fraction of metals in slag of copper smelting production. He proposed to recommend the RM in question for the recognition as COOMET CRM and expressed gratitude to all participants who submitted results of analysis. Written consent on the possibility to recognize the RM in question as COOMET CRM was received from the Contact Persons from Belarus, Bulgaria and Slovakia.

**The decision was taken as follows:**

1. To endorse the report on study of metrological characteristics of the RM of mass fraction of metals in slag of copper smelting production and presented information, to express gratitude to the Project Coordinator Mr. Sobina and the participants of experimental research for the work they have done.

2. To recommend the Project Coordinator to include information values for calcium, arsenic, antimony in slag of copper smelting production in the COOMET certificate.

3. In view of the results of the works performed, to include the RM of mass fraction of metals in slag of copper smelting production in the List of RMs, recommended for the recognition as COOMET CRMs at the 28<sup>th</sup> COOMET Committee meeting, taking into consideration that Belarus, Bulgaria and Slovakia joined its recognition.

4. To request the Contact Persons of TC 1.12 who has not submitted their opinions on the recognition of the RM of mass fraction of metals in slag of copper smelting production as COOMET CRM to submit them to the Secretariat of TC 1.12 by **15.10.2017**.

5. To request the Secretariat of TC 1.12 and the Project Coordinator to carry out the range of works on the recognition and registration of the RM of mass fraction of metals in slag of copper smelting production as COOMET CRM in compliance with the requirements of COOMET Recommendations R/RM/4:2008 and R/RM/5:2010.

6. To request the Project Coordinator to prepare information on the results of the work for the journal "Reference Materials".

**7.12 Project 659/RU/15 Development of CRM for composition of quartz concentrate (KK DODO deposit vein 233) – KK-233**

**7.13 Project 660/RU/15 Development of CRM for composition of quartz concentrate (KK Vyazov deposit vein 5) – KK-5**

**7.14 Project 661/RU/15 Development of CRM for composition of quartz concentrate (KK Karayan deposit vein 17) – KK-17**

**7.15 Project 662/RU/15 Development of CRM for composition of quartz concentrate (KK Kyshtym deposit vein 175) – KK-175**

The Project Coordinator Ms. Ilyicheva presented information on the progress of the projects. CRM material and Certification Programme are prepared. Proposals have been prepared and sent to potential participants (Belarus, Kazakhstan, Uzbekistan). The work on the projects continues.

**The decision was taken as follows:**

1. To take into consideration the information on the progress of the projects.

2. To request the Project Coordinator to continue the work and to present information on the progress of the projects to the next meeting of TC 1.12.

**7.18 Project 700/RU/16 Pilot comparisons of CRM for composition of ferric ion solution**

**7.19 Project 701/RU/16 Pilot comparisons of CRM for composition of copper ion solution**

The Project Coordinator Ms. Kremleva presented information on the progress of the projects. The projects were initiated in July 2016. The proposal was to conduct pilot comparisons of CRM for composition of ferric iron (III) solution and CRM for composition of copper ion solution, intended for verification, calibration and graduation of measurement instruments, certification of measurement procedures, accuracy control of measurement results and other metrological activities and control. The Project Coordinator prepared and sent a report A on the Project 701/RU/16 “Pilot comparisons of CRM for composition of copper ion solution” to the participant from Kazakhstan for agreement. Taking into account the comments received, the Project Coordinator prepared a report B that was provided for consideration at the meeting. The works on comparisons of CRM for composition of ferric ion solution are in progress.

Scheduled stages of work on the projects: conducting comparisons of CRM for composition of ferric ion solution; preparation of reports and documentation for the circulation among the Contact Persons of TC 1.12 for consideration of the possibility to recognize CRMs as COOMET CRMs by correspondence; submission of CRMs to the next COOMET Committee meeting for the recognition according to the established COOMET procedure.

**The decision was taken as follows:**

1. To take into consideration the information on the progress of the projects.
2. To request the Project Coordinator to continue the work on the project according to the scheduled stages of work.
3. To request the Secretariat of TC 1.12 and the Project Coordinator in concert with the Contact Persons of TC 1.12 and COOMET Quality Forum to clarify the scope of COOMET R/RM/29:2016 “The Content and Procedure of Work on Reference Material Comparison within COOMET”.

**7.20 Project 729/RU/16 Development of CRM for composition (agrochemical parameters) of brown heavy-loamy alkali soil SASolP-05**

Ms. Kveglis presented information concerning the new project. The project was initiated in August 2017. The Project Coordinator is Galina A. Stupakova, head of laboratory of agroecological monitoring measurement assurance, Federal State Budgetary Scientific Institution “D.N. Pryanishnikov All-Russian Research Institute of Agrochemistry”, the Federal Agency for Scientific Organizations (FSBSI “VNIIA named after D.N. Pryanishnikov” FASO Russia).

Joint development of CRM for composition (agrochemical parameters) of brown heavy-loamy alkali soil SASolP-05 is proposed.

**The decision was taken as follows:**

1. To take into consideration the information on the initiation of a new project.
2. To request the Contact Persons of TC 1.12 to conduct work among national organizations developing RMs on the possibility of participation in the new project.
3. To request the Project Coordinator to continue the work on the project.

**8 Project 186/RU/99 The Programme of CRM joint production within COOMET**

Ms. Kveglis from the Secretariat of TC 1.12 reported on the progress of updating the on-going project **186/RU/99**. She informed the participants on the work carried out in 2016-2017 and briefed on the content of the Programme submitted for consideration as of 12.09.2017.

**The decision was taken as follows:**

1. To endorse the Programme of COOMET CRM joint production (*Annex 8*).

2. To take into consideration the information on the progress of the projects, provided by TC 1.12 Secretariat, Project Coordinators and TC 1.12 Contact Persons.

3. To request TC 1.12 Contact Persons to promote the work in their countries on the identification of participants within the proposed projects and on the preparation of additional proposals on CRM development for the inclusion in the Programme; to submit the proposals to TC 1.12 Secretariat **by 01.12.2017**.

4. To request the Project Coordinator to update the Programme, taking into account its consideration at the meeting and proposals received under sub-clause 8.3 of the minutes, to circulate it among the Contact Persons of TC 1.12 and to submit the updated version of the Programme for uploading on COOMET Web-portal (Web-page of TC 1.12).

5. To request the Project Coordinator to present the updated version of the Programme to the next meeting of TC 1.12.

### **Agenda item 9: Consideration of normative documents**

#### ***9.1 Project 543/AM/11 “Creation and maintaining of COOMET CRM Data Base”***

The Project Coordinator Ms. Kremleva presented information on the progress of the project. The following issues were considered at the meeting:

- the possibility of including in COOMET CRM DB of reference materials, produced by NMIs of COOMET member-countries and included in BIPM data base of calibration and measurement capabilities;
- submission of data to COOMET CRM DB in the prescribed form.

#### **The decision was taken as follows:**

1. To take the information on the progress of the project into consideration.
2. To request the Contact Persons of TC 1.12 to submit their comments and proposals to TC 1.12 Secretariat on the forms of CRMs included in COOMET CRM DB.

#### ***9.2 Project 697/RU/16 Revision of COOMET Recommendation R/RM/22:2013 “Form and content of COOMET certificate for reference materials for composition and properties of substances and materials”***

The Project Coordinator Ms. Kremleva presented information on the progress of the project. The 1<sup>st</sup> revision draft of COOMET Recommendation R/RM/22:2013 “Form and contents of COOMET certificate for reference materials for composition and properties of substances and materials” was prepared and submitted for consideration at the 21<sup>st</sup> meeting of TC 1.12. The second revision draft is in the process of developing and harmonization with new editions of ISO Guides on RMs:

**ISO Guide 30:2015** “Reference materials – Selected terms and definitions”;

**ISO Guide 31:2015** “Reference materials – Contents of certificates, labels and accompanying documentation”;

**ISO Guide 33:2015** “Reference Materials – Good practice in using reference materials”.

#### **The decision was taken as follows:**

1. To take the information on the progress of the project into consideration.
2. To request the Project Coordinator to prepare and circulate the 2<sup>nd</sup> draft Recommendation among the Contact Persons of TC 1.12 for agreement.
3. To request the Contact Persons of TC 1.12 to submit the comments and proposals on the 2<sup>nd</sup> draft Recommendation **within a month of the date of receipt**.
4. The decision on the submission of the draft document for approval by COOMET Committee will be taken on the recommendation of COOMET Quality Forum.

**Agenda item 10: Information on the progress of the Register of COOMET CRMs and maintaining TC 1.12 “RMs” page of COOMET Web-portal**

10.1 Ms. Kveglis presented the Register of COOMET CRMs, updated as of 12.09.2016 (*Annex 10.1*) and the List of CRMs recommended for the recognition as COOMET CRMs at the 28<sup>th</sup> COOMET committee meeting (*Annex 10.2*).

Currently 113 CRM types are registered in the Register of COOMET CRMs, 16 of them are considered to be deleted.

As a result of updating in 2017, the amendments concerning the renewal of Certificates for COOMET CRMs were introduced.

10.2 On-line editor of TC 1.12 page of COOMET Web-portal completed updating TC 1.12 page of COOMET Web-portal (address: [www.coomet.net](http://www.coomet.net)).

**The decision was taken as follows:**

1. To take into consideration the information on the progress of the Register of COOMET CRMs and maintaining TC 1.12 “RMs” page of COOMET Web-portal.

2. To request COOMET Secretariat to submit the updated Register of COOMET CRMs for uploading on COOMET Web-portal (Web-page of TC 1.12).

3. To request the Contact Persons of TC 1.12 in concert with RM producers to review the Register of COOMET CRMs and to prepare proposals on its updating for items relating to their countries and submit it to TC 1.12 Secretariat by **01.12.2017**.

4. To request the Contact Persons in TC 1.12 and the participants of the meeting to periodically review the information, posted on COOMET sites: <http://www.coomet.net> and <http://www.coomet.org>

**Agenda item 11: Any other business**

**11.1 Changes to the membership of TC 1.12**

The information on the changes to the membership of TC 1.12 was provided by Ms. Kveglis (*Annex 11*).

**The decision was taken as follows:**

1. To take the information into consideration.

**Agenda item 12: Date and venue of the next meeting, closure of the meeting.**

12.1. To request the Contact Persons in TC 1.12 to consider the possibility of holding the next 23<sup>rd</sup> meeting of TC 1.12 in the second half of 2018.

12.2. To request the Secretariat of TC 1.12 to agree upon the date and the venue of the 23<sup>rd</sup> meeting of TC 1.12 “RMs” by correspondence.

12.3 To consider the project **728/RU/16** “Organization and holding the 22<sup>nd</sup> meeting of COOMET TC 1.12 “RMs” as finalized and to request the Project Coordinator to complete the form of the Final Report and to send it to COOMET Secretariat.

In his closing word Mr. Medvedevskikh thanked the participants of the meeting for their active work and expressed the hope that all the works started in concert will have a good continuation.

## **HEADS OF DELEGATIONS:**

Contact Person from Belarus in  
COOMET TC 1.12 “RMs”



Ekaterina Filistovich

Contact Person from Germany in  
COOMET TC 1.12 “RMs”



Wolfram Bremser

Representative from Kazakhstan



Olga Savinkova

Representative from Moldova



Ana Chubara

Contact Person from Russia in  
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Sergey Medvedevskikh

Contact Person from Slovakia in  
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Zuzana Ďurišová

Representative from Ukraine



Andrey Glebov