CCQM Inorganic Analysis Working Group
Meeting to be held on 26 - 28 September 2017
Hotel Concord, Turin, Italy

Programme

Tuesday 26 September (am): Pure Materials and Standards

0930 Welcome from INRIM
   Introduction
   Update on work programme and agreed studies
   Reports on Key Comparisons and Studies of Pure Materials
   CCQM-K34.2016: Assay of potassium hydrogen phthalate
   Ma Liandi, NIM
   First discussion of results
   CCQM-K122 and CCQM-P135.1: Purity of salts (bromide, nitrate, sulphate in NaCl)
   Olaf Rienitz, PTB

1030 Coffee

1100 CCQM-K143 and CCQM-P181: Copper calibration solutions
   Update on progress with the comparison
   CCQM-P160: Isotope ratios / molar mass measurements of Si isotopes in isotopically enriched silicon
   Update on progress with the comparison including discussion of sample homogeneity, use of software.

Future studies
   Proposal for a key comparison (pilot study) on measurement of Cu isotope ratios in copper metal
   Lu Yang, NRC
   Proposal for a key comparison (pilot study) on measurement of Sr isotope ratios in grain powder.
   Kazumi Inagaki, NMIJ
   Proposal for a key comparison (pilot study) on measurement of non-metals in pure metals
   Rocio Arvizu-Torres, CENAM and Lu Yang, NRC

1300 Lunch

Tuesday 26 September (pm): Matrix Materials

1400 Reports on Key Comparisons and Studies of Matrix Materials
   CCQM-K128 and P163: Heavy metals and organo-tin in leather powder
   Ma Liandi, NIM
   Update on the comparison including changes to the KCRV calculation
   CCQM-K139 and P173: Determination of elements
   Fransiska Dewi, HSA
in human serum
Update on progress with the comparison

1500 Coffee

1530 CCQM-K144 and CCQM-P182: Trace elements in alumina powder
Update on planning the comparison including confirmation of the technical protocol and analytes

CCQM-K145 and P183: Toxic and essential elements in bovine liver
Update on progress with the comparison

CCQM-K149: Nitrogen mass fraction in dry milk powder
Update on progress with the comparison

Kyoung-Seok Lee, KRISS
Wang Jun, NIM
Maria Krasheninina, UNIIM

Wednesday 27 September (am): Matrix Materials (continued)

0930 Reports on Key Comparisons and Studies of Matrix Materials (continued)

Future studies

Preliminary discussion of a key comparison and pilot study for elements in seawater (joint with EAWG).

*This item is in the IAWG forward plan for 2019; discussion will include how to conduct the exercise, potential measurands, etc.*

Proposal for a pilot study on measurement of number concentration of nano-particles.

*This proposal is for a joint study with the SAWG and follows from the workshop in April 2017*

CCQM-K151 and P191: Determination of the amount content of a purity-assessed recombinant protein (insulin) in an aqueous calibration solution.
The PAWG plan to commence this comparison in September 2017 and have invited IAWG participation using S-based ID ICP-MS.

Other suggestions for future work on matrix materials are invited.

Süleyman Can, UME
Michael H.P. Yau, GLHK
Heidi Goenaga Infante, LGC
Yong-Hyeon Yim, KRISS
Mike Sargent, LGC

1030 Coffee

1100 Regional Activities

EURAMET.QM-S11 and EURAMET 1424 (Pilot study): Elements in River Water
Update on the project (TBC)

APMP.QM-S10/P31: Elements in food supplement
Update on progress with the comparison

Developments at the EURAMET TCMC

Süleyman Can, UME
Michael H.P. Yau, GLHK
Olaf Rienitz, Rainer Stosch, PTB
Developments at the APMP TCQM
Ma Liandi, NIM

Developments at SIM
Valnei Cunha and Thiago Araujo, INMETRO

Technical presentations

Achievements of the EMPIR MeTra project:
Paola Fisicaro, LNE
Traceability for mercury measurements

CCQM Task Group to develop draft terms of reference for a dedicated group to deal with isotope ratio measurements (TBC)
Zoltan Mester and Lu Yang, NRC

Other suggestions for technical presentations are invited.

1300 Lunch

Wednesday 27 September (pm):
CCQM Strategy, CMC Support and Scope, General Issues

1400 CCQM Strategy
Robert Wielgosz, BIPM
Update on progress with the mid-term revision of the CCQM strategy

CMC Support and Scope
Paola Fisicaro, LNE and Heidi Goenaga Infante, LGC
Discussion of the revised core capability approach, formulation of broader scope CMCs, and IAWG guidance on using the new approach

1530 Coffee

1600 IAWG CRM and CMC survey and database
Maré Linsky, NMISA
Review of trends and issues apparent from the IAWG database and discussion of the 2018 questionnaire to NMIs and DIs on future plans for CRMs and CMCs.

General issues
Mike Sargent, LGC
Proposed harmonization of nomenclature for CCQM comparisons
Update on proposals to improve the transparency of rules for CMC reviews

Future IAWG meetings
Mike Sargent, LGC
16 -17 April 2018, hosted by BIPM, Sevres, France

1700 Any other business and concluding remarks
Mike Sargent, LGC

Evening INRIM invites participants to a gala dinner.

Mike Sargent
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25 September 2017
Draft Agenda

Workshop

“Inorganic nanoparticles in food and other matrices”

CCQM IAWG Meeting

Thursday 28th September 2017

Hotel Concord, Turin, Italy

9:30 Andrea Rossi, INRIM “Identification of different TiO2 NPs crystallographic phases by Raman Spectroscopy in food matrices”

9:50 Heidi Goenaga Infante, LGC “ICP-MS hyphenations for the characterisation of inorganic nanomaterials in complex matrices”

10:10 Jingbo Chao, NIM “Research progress in nanoparticles species metrology of NIM”

10:30 Paolo Ciocca, Sealed Air (company) “Plastic Food Packaging, effect of nanomaterials on properties”

10:50 Discussion

11:00 Tea/Coffee

11:20 Paola Fisicaro, LNE “Characterisation of nanoparticles in food matrices by UV-MALLS-FFF”

11:40 Francesco Cubadda, ISS “Nanomaterials in food: issues related to their use and analytical determination”

12:00 Karen Murphy, NIST “Just How Quantitative is Single Particle ICP-MS?”

12:20 Ivana Fenoglio, University of Turin Department of Chemistry “The nanomaterials diversity: challenges and opportunities”

12:40 Final Discussion

13:00 Lunch