

## CCQM Inorganic Analysis Working Group Meeting to be held on 8 - 9 April 2019 BIPM, Sèvres

### Programme

*The meeting will be held jointly with the Isotope Ratio Working Group on Monday morning, the Surface Analysis Working Group on Monday afternoon, and the Electrochemical Analysis Working Group on Tuesday morning .*

#### **Monday 8 April (am): Matrix and Isotopic Materials**

- 0930 **Introduction** Mike Sargent  
*Tour de table, agenda, minutes of the last meeting, overview of IAWG activities.*
- Update on work programme and agreed studies** Mike Sargent  
*A brief update on current studies and key comparisons not included elsewhere on the agenda.*
- Update on activities of the Isotope Ratio Working Group** Zoltan Mester, NRC  
*Including a report on the IRWG meeting held on 7 April 2019*
- Reports on key comparisons and studies of isotopic and matrix materials**
- CCQM-P160: *Isotope ratios / molar mass measurements of Si isotopes in isotopically enriched silicon* Olaf Rienitz, PTB  
Update on issues raised at previous meetings, subsequent discussions with participants and discussion of the draft report/publication
- 1100 **Coffee**
- 1130 CCQM-K158 and CCQM-P200: *Measurement of a range of spiked and natural elements in rice material in addition to Sr (with natural isotope ratios), associated Rb and inorganic As* Kazumi Inagaki, NMIJ and Yong-Hyeon Yim, KRISS  
Update on progress with the comparison, including discussion of the protocol and schedule
- CCQM-K144 and CCQM-P182: *Trace elements in alumina powder* Kyoung-Seok Lee, KRISS  
Update on progress with the comparison

	CCQM-K145 and P183: <i>Toxic and essential elements in bovine liver</i>	Wang Jun, NIM
	Update on progress with the final reports	
	CCQM-K160 and P203: <i>Platinum Group Elements in Automotive Catalyst</i>	Sarah Hill, LGC
	Update on planning the comparison	
1300	Lunch	

**Monday 8 April (pm): CCQM-P194 Workshop and Matrix Materials (cont.)**

1400	CCQM-P194: <i>Number concentration of colloidal particles in solution</i> This pilot study combined measurements by members of the IAWG using sp-ICP-MS with results from SAWG members using several complementary techniques. The “mini-workshop” will discuss the significance of the various techniques for characterisation of nanoparticles.	Heidi Goenaga Infante, LGC
	CCQM-P194 update and follow up	Heidi Goenaga Infante, LGC
	NIST spICPMS measurements	Karen Murphy, NIST
	PTB SAXS measurements	Michael Krumrey, PTB
	LNE ESDMA measurements	Paola Fisicaro and Lola Brégonzio-Rozier, LNE
	NMIJ SME measurements	Kazuhiro Kumagai, NMIJ
	NPL UV Visible measurements	Alex Shard, NPL
	Update on parallel VAMAS comparison	Caterina Minelli, NPL
1530	<b>Coffee</b>	
1600	<b>Reports on key comparisons and studies of matrix materials (cont.)</b>	
	CCQM-K155 and P196: <i>Elements in seawater</i> Discussion of protocol including the revised schedule	Süleyman Can, UME and Alvin Fung, GLHK
	EURAMET.QM-S11 and EURAMET 1424 (Pilot study): <i>Elements in River Water</i> Update on the comparison	Süleyman Can, UME
	<b>Future matrix material studies</b>	
	Proposal by LGC and NIST for a new key comparison on seleno-proteins in serum	Heidi Goenaga Infante, LGC
	Proposal for an APMP supplementary comparison on elements in lipstick material	Richard Shin, HSA

Proposal for an APMP supplementary comparison and pilot study on inorganic arsenic and elements in seafood Alvin Fung, GLHK

Planned and proposed SIM supplementary comparisons:  
Major component and trace elements in copper ore Valnei S Cunha, INMETRO  
Major and trace elements in infant formula

1800 **Aperitif for CCQM WGs at the BIPM**

**Tuesday 9 April (am): Pure Materials and Standards**

0930 **Reports on Key Comparisons and Studies of Pure Materials**

CCQM-K122 and CCQM-P135.1: *Purity of salts (bromide, nitrate, sulphate in NaCl)* Olaf Rienitz, PTB

Update on progress with the draft CCQM-K122 report

CCQM-K143 and CCQM-P181: *Copper calibration solutions* John Molloy, NIST

Discussion of results and the Draft A report

1100 **Coffee**

1130 CCQM-K152 and P192: *Assay of potassium iodate* Alena Sobina, UNIIM  
Update on progress with the comparison including preliminary results

CCQM-K73.2018: *Amount content of H<sup>+</sup> in an HCl solution with a nominal molality of 0.1 mol kg<sup>-1</sup>* Steffen Seitz, PTB

Update on progress with the comparison.

CCQM-K34.2016.1: *Assay of potassium hydrogen phthalate* Ma Liandi, NIM

Update on progress with the comparison.

CCQM-K151 and P191 (Protein Analysis WG): *Quantitation of a S-containing protein (insulin)* Yong-Hyeon Yim, KRISS

Update on participation by IAWG members in CCQM-P191 using ICP techniques to determine total S and S associated to the target pure protein

**Future studies**

Proposal for a key comparison and pilot study on anions (Cl<sup>-</sup>, F<sup>-</sup>, SO<sub>4</sub><sup>2-</sup>, PO<sub>4</sub><sup>3-</sup>) in seawater Ma Liandi, NIM

Proposal for a key comparison on EDTA assay or acid/base back titration (tris?) underpinning capabilities in complexometric determinations Michal Mariassy, SMU

Proposal for a key comparison (pilot study) on measurement of non-metals in pure metals  
*There is an urgent need to progress this comparison and resolve the issue of finding suitable samples. Investigation by CENAM and NRC has identified the possibility of using a commercial copper sample with appropriate levels of O, N, H, C and S.*

Zoltan Mester, NRC

1300 **Lunch**

**Tuesday 9 April (pm): IAWG strategy and general issues**

1400 **IAWG Strategy**

Update on KCWG and CMC review issues

Maré Linsky, NMISA

IAWG CRM and CMC survey

Maré Linsky, NMISA

*Discussion of the IAWG database and the 2019 questionnaire to NMIs and DIs on future plans for CRMs and CMCs.*

Implementation of IAWG “five year plan” for KCs  
*An update on the current plan, reviewing agreed, proposed and required key comparisons.*

Paola Fisicaro, LNE

**CMCs and core capabilities**

Paola Fisicaro, LNE and Heidi Goenaga Infante, LGC

The IAWG has implemented a revised core capability approach with the aim of making support for the CMC review process more efficient and transparent and developing support for broad scope CMCs based on demonstrations of core competencies.

*This item will comprise an update and discussion of progress with using the new approach.*

1600 **Coffee**

1630 **General issues**

Traceability issues arising from withdrawal of the JRC (IRMM) from EURAMET

Rainer Stosch, PTB

*Several NMIs or DIs have CMCs relying on IRMM standards for traceability to the SI. This is potentially an issue if the IRMM CMCs are “greyed out” by EURAMET*

The interpretation of CIPM rules on KC participation and results, including support for CMCs, frequently raises questions from IAWG members. This agenda item will provide an opportunity to discuss two common issues:

Mike Sargent



*Submission of multiple results (techniques) for the same measurand in key comparisons.*

*Whether there should be “special case” techniques (e.g. NAA) for which overlapping CMCs are allowed (between an NMI and DI in the same country).*

**Future IAWG meetings**

10 - 12 September, hosted by UNIIM,  
Ekaterinburg, Russia

Egor Sobina, UNIIM

1700 **Any other business and concluding remarks**

Mike Sargent

**Mike Sargent**

[metrology@misar.uk](mailto:metrology@misar.uk)

3 April 2019