Meeting of the ICRM Liquid Scintillation Counting Working Group

25-26 January 2021

virtual meeting

Agenda

First day (Monday, 25 January)

All times are given in Paris time!

11:30 Start of the meeting 11:45-11:55 Organisational matters etc. (KK, all)

Session 1: Hardware settings, instrumentation

11:55-13:20

- Performance of a miniature TDCR counter for radionuclide metrology (Benoit Sabot)
- A new custom-built CNET counter (Ole Nähle)
- A novel approach for activity determination by measuring timing distributions in LSC (Krasimir Mitev)
- Evaluation of accidental coincidences counting rates in TDCR counting (Chavdar Dutsov)
- Discussion (all)

13:20-14:20 Lunch/dinner/breakfast break

Session 2: Models, methods, applications

14:20-16:30

- Development of DCC for TDCR based $4\pi(LS)$ - γ coincidence counting system at NIM (Haoran Liu)
- A new Compton spectrometry LSC counting system first experiments and results (Benoit Sabot)
- On the photomultiplier-tube asymmetry in LS counting (Karsten Kossert)
- Measurements of very short half-lives (Marcell Takács)
- Recent experience with TDCR acquisition with CAEN desktop digitizer: Application to determination of the half-life of excited states (Chavdar Dutsov)
- Discussion (all)

approx. 17:00 Close of day 1

Second day (Tuesday, 26 January)

11:30 Start of the meeting

Session 2: Models, methods, applications (continued):

11:35-13:20

- Activity standardization of ¹⁰⁶Ru/¹⁰⁶Rh by means of liquid scintillation counting and the importance of ¹⁰⁶Ru beta spectrum (Christophe Bobin)
- Improved activity standardization of ⁹⁰Sr/⁹⁰Y by means of liquid scintillation counting (Karsten Kossert)
- Influence of the coincidence resolving time on TDCR measurement results (Chavdar Dutsov)
- ²²²Rn measurements by TDCR counting metrological aspects (Philippe Cassette)
- Discussion (all)

13:20-14:20 Lunch/dinner/breakfast break

Session 2: Models, methods, applications (continued):

14:20-15:50

- A mock standard for a new ⁹⁰Y microsphere (work in progress) (Raphael Galea)
- Preliminary activity measurements of the ⁹⁰Y by Cherenkov counting (Tomasz Ziemek)
- LS-based observations on the ¹⁵³Gd decay scheme (Denis Bergeron)
- LSC activity measurements for the multigamma standard sources production (Justyna Marganiec-Gałązka)
- Discussion (all)

Session 3: Comparisons:

15:50-16:50

- ESIR: progress of the ⁶⁰Co pilot study (Romain Coulon)
- Results of the CCRI(II)-K2.Fe-55.2019 key comparison (Ryszard Broda)
- Proposed comparison: Analysis of same data set from a digitizer (Ole Nähle)
- Discussion (all)

General discussions

approx. 17:00: Close of day 2, end of meeting