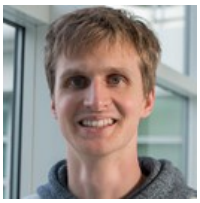
Mass Spectrometry in Radionuclide Metrology

This Webinar is a follow up of meetings in 2021 in which a joint effort between the CCRI(II) and the CCQM to leverage mass spectrometry in radionuclide metrology has been discussed. With the increasing use of mass spectrometry in the metrology of particularly longer-lived radionuclides in applications ranging from site decommissioning to nuclear forensics needs, the potential use of mass spectrometry is being pursued at several institutions. Three speakers will give a brief overview of the historical path to the use of mass spectrometry in radionuclide metrology, its use in the development of nuclear decay data and the need to develop relevant reference materials, and a new international project on harmonization of measurements of environmental pollutants in Europe, which includes the use of mass spectrometry for both active and stable species. The Webinar speakers are:

- Richard Essex (National Institute of Standards and Technology, USA) will cover how complimentary measurements can support accurate and precise characterization of radioactive materials.



- Ben Russell (National Physical Laboratory, UK) will discuss recent and planned developments in mass spectrometry-relevant reference materials, including specifications concerning sample matrices and radionuclides.

- Dirk Arnold (Physikalisch-Technische Bundesanstalt, Germany) will present an update on the upcoming European project ("Metrology for the harmonization of measurements of environmental pollutants in Europe"), which will start in 2022 and last for 3 years. The participating group includes 12 NMI/DIs and 10 universities and research institutes.

As this topic is of interest to both the radionuclide and inorganic chemistry metrology communities, we look forward to an audience from both CCRI and from CCQM. The webinar is expected to be followed by a joint workshop (in person or virtual) later in 2022 to discuss the uses, needs, challenges and advances in using mass spectrometry in radionuclide metrology activities.