

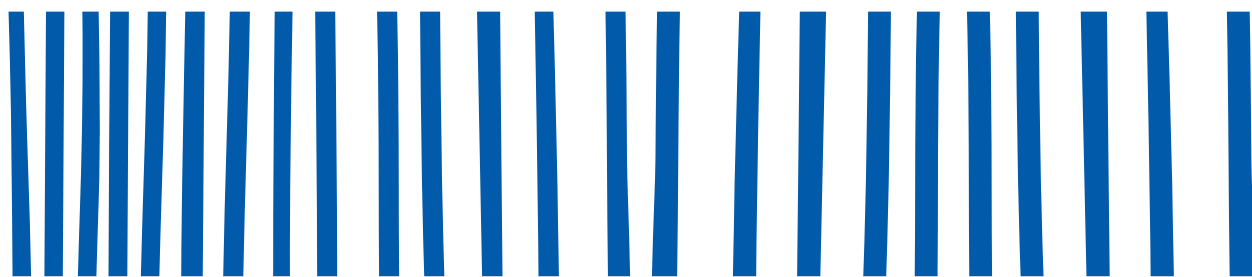


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BOOK OF ABSTRACTS



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Introducing a regional database of radioactivity in the air – GRAMON

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Ground Air Radioactivity Monitoring (GRAMON) database is a recently established collection containing activity concentrations of gamma emitters in aerosol samples. The measurements come from Serbia (sampling site Belgrade), Slovenia (sampling sites Ljubljana and Krško), Bosnia and Herzegovina (sampling site Sarajevo), Montenegro (sampling site Podgorica), and North Macedonia (sampling sites Skopje and Bitola), thus covering the northern and central parts of the Balkan Peninsula.

As a database arising from the monitoring programmes in several countries, GRAMON is not fully homogeneous in terms of the radionuclides and time periods studied. For example, the beryllium-7 records are available for all sampling sites, while the lead-210 records only in Serbia, Slovenia, and Bosnia and Herzegovina. The time series for Serbia and Slovenia began in 1991, for Montenegro and North Macedonia in 2008, and for Bosnia and Herzegovina in 2010.

However, sampling, sample preparation, and measurement procedures across the sites and laboratories are similar. In brief, aerosol samples are collected on filter papers using air samplers. Activity concentrations of radionuclides are determined by standard gamma spectrometry using high-purity germanium detectors. The time series contain monthly mean activity concentrations.

Since only some of the GRAMON records have been previously published, this database provides a source for radioactivity research in the region that has been underrepresented in large-scale studies. We further hope to expand the number of contributing laboratories and cover a wider region of Europe, especially its southern and eastern parts.

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