

T2.4-P11. Radioxenon categorisation schemes based on statistical parameters

Atmospheric concentrations of radioxenon are constantly monitored at 40 noble gas stations. Such a constant flux of data has to be categorized for better data management and also for an apprehension by non-scientists. Until today several universal categorisation schemes, e.g. based on three or five levels, to be applied to the samples from all stations have been suggested. In this work a new basis for categorisation of radioxenon samples is examined. Each noble gas monitoring station detects various levels of radioxenon according to meteorological patterns and close-by background sources. Thus, over time the signal at each station shows its own fingerprint. Therefore, the standard deviation of the time series provides an unbiased way to describe the distribution of radioxenon concentrations. The time series for each monitoring station can be based on experimental data and on simulated data from atmospheric transport modelling. This can be used to create a station-specific categorisation scheme with levels according to the station's fingerprint.

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