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## I-131 and Be-7 analysis around RN22 in Guangzhou 2016-2020

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As an artificial radionuclide, I-131 rarely appears in a natural environment, while RN22 monitoring system sometimes finds I-131 each year in air samples, especially in winter. The highest I-131 activity is 3 Bq while MDC for HPGe is 0.08Bq. The Gaussian model is applied to backtrack a possible resource of Iodine near RN22. The activity of cosmogenic radionuclide Be-7 in air samples is concentrated below 50 Bq in summer while in other seasons it varies up to 200 Bq. 2016-2020 Be-7 activity varies in a similar mode. The correlation between Be-7 activity and wind speed, PM10 is analysed.

### Promotional text

I-131 is detected in some air samples in RN22. A backtrack analysis using Gaussian model is used and the possible resource is analysed.

Be-7 gives a stable range in summer time than other three seasons. The correlation between Be-7 activity and wind speed, PM10 is analysed.

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