Impact of North Korean nuclear weapons test on 3 September, 2017 on inland China traced by $^{14}$C and $^{129}$I

Environmental impact of North Korea nuclear weapons testing on 3 Sept, 2017, is of key concern. In order to investigate whether there is radioactive leakage and whether it can be transported to inland China, $^{14}$C and $^{129}$I are determined in aerosol samples collected in a Chinese inland city before and after the test. Aerosol $\Delta^{14}$C values before and after the test do not show any significant difference. In contrast, a four-fold increase of $^{129}$I/$^{127}$I ratios was found after the test. The possible sources of $^{129}$I in these atmospheric samples and the impact of the North Korea nuclear test are discussed.

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