SUPPORTING INFORMATION

Iodine oxidation-driven enhancement in preconcentration and ICP-MS/MS detection of ^{129}I in environmental water

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Supporting information includes 6 figures and 1 table.

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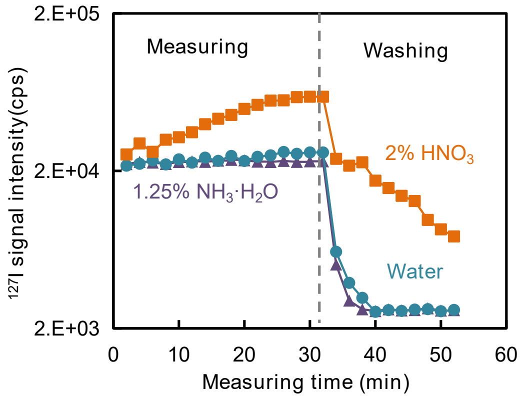

Fig. S1. Measuring of 1 ng mL^{-1} ^{127}I solution and washing with 2% HNO_3, water, 1.25% $NH_3 \cdot H_2O$.

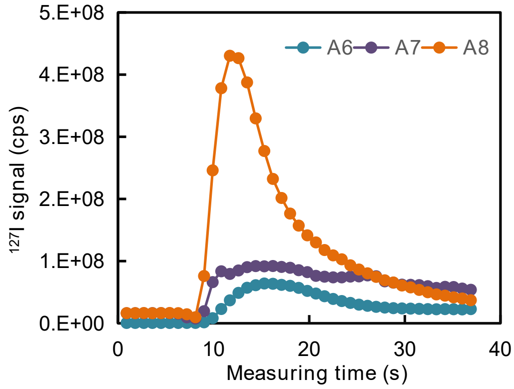

Fig. S2. A6: rising I^- at water/5%$NH_3 \cdot H_2O$; washing with 0.5% $NaNO_2$; A7: rising I^- at 2% HNO_3; washing with 0.5% $NaNO_2$+5% $NH_3 \cdot H_2O$; A8: rising I^- at 2%HNO_3; washing with 0.5% $NaNO_2$.

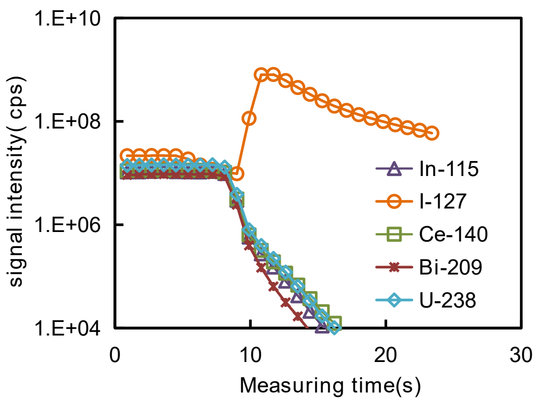

Fig. S3. Signals of 100 ng mL^{-1} In-115, I-127, Ce-140, Bi-209, U-238 standard solution, then washing with 5×10^{-4} g mL^{-1} $NaNO_2$.

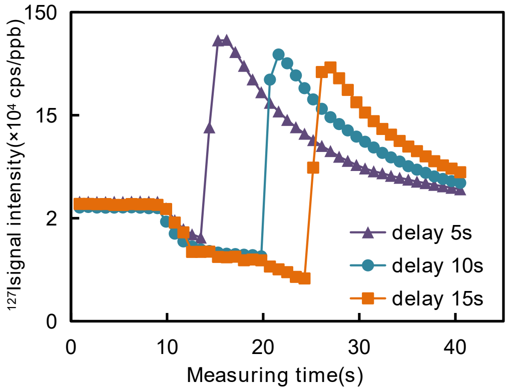

Fig. S4. Effect of delay entry into the oxidant solution on signal jumping.

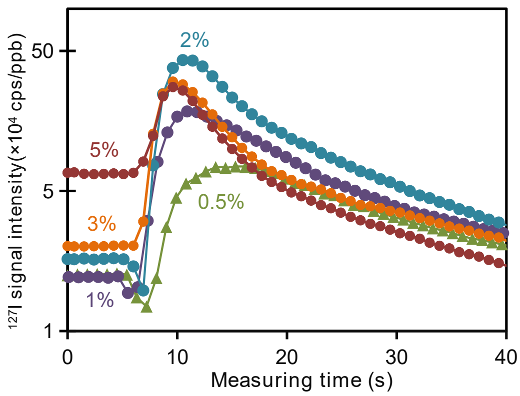

Fig. S5. Effect of different concentration of HNO_3 in rising solution, $[^{127}I^-] = 1.0$ μg mL^{-1}, $V_{initial} =$ 0.1 mL, washing with 5×10^{-4} g mL^{-1} $NaNO_2$.

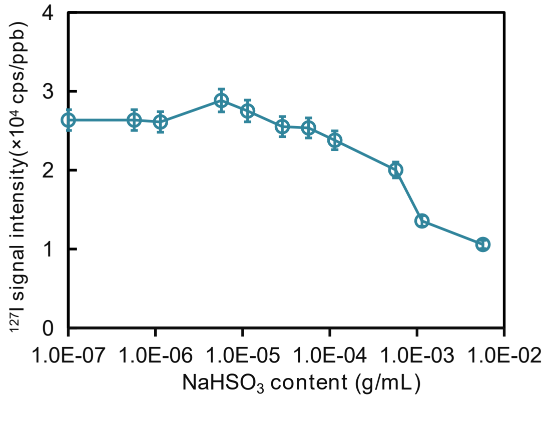

Fig. S6. The affection of $NaHSO_3$ contents on the ^{127}I signal intensity, $[^{127}I] = 10$ ng mL^{-1}.

Table S1 Stability of the CVG measurement at different batch for ^{127}I signal intensity (cps (ng mL^{-1})$^{-1}$)

Batches	Direct measure	CVG measure	Jump times
1	1.67×10^4	4.72×10^5	28.4
2	1.44×10^4	3.93×10^5	31.2
3	1.57×10^4	3.98×10^5	25.3
4	1.63×10^4	4.70×10^5	28.9
5	1.50×10^4	4.36×10^5	30.3
6	1.62×10^4	4.30×10^5	26.6