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CORRECTION

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# Correction: Sequential separation of ultra-trace U, Th, Pb, and lanthanides using a simple automatic system

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Correction for 'Sequential separation of ultra-trace U, Th, Pb, and lanthanides using a simple automatic system' by Yutaka Miyamoto, *et al.*, *Analyst*, 2015, DOI: 10.1039/c5an00027k.

The article contains incorrect diameter measurements for the PFA tubing (1 mm inner diameter, 2 mm outer diameter) and separation columns (0.2 mm i.d.) used for these studies. They should read (2 mm inner diameter, 3 mm outer diameter) and (2 mm i.d.), respectively. This occurs in some of the figure captions and in the text within the section '**Apparatus and reagents**'. For this section, the fifth sentence of the second paragraph should read as follows:

"A PFA tube (2 mm i.d., 3 mm outer diameter) was used as the column by cutting it to an appropriate length."

Correct versions of the figure captions are shown here below.

**Fig. 1** (a) Diagram of the automatic sequential separation system driven by pressurized gas (CASSUAL). The bold, broken, and double lines indicate the eluent flow lines, control signals, and gas flow lines, respectively. (b) Anion exchange column for the sequential separation. The anion exchange resin was packed into a PFA tube (2 mm inner diameter, 3 mm outer diameter). The PEEK fittings were attached to both ends of the tube.

**Fig. 2** Elution profile comparison between the different column particle sizes. The chemical yields are indicated next to the element symbols. The broken lines indicate the change of elution composition. (a) Separation with particle size: 11 μm (CA08S), column size: 100 mm × 2 mm i.d., column volume: 314 μL, gas pressure: 0.4 MPa, and total process time: 18.7 h. (b) Separation with particle size: 23.5 μm (CA08Y), column size: 120 mm × 2 mm i.d., column volume: 377 μL, gas pressure: 0.4 MPa, and total process time: 3.1 h.

**Fig. 3** Comparison of Th elution profiles between the different column lengths. The horizontal positions of the elution profiles were aligned relative to the peak maxima. The recovery yield in a fraction was normalized relative to the elution volume and complete Th recovery. This separation used a particle size of 11 μm (CA08S); column size of 2 mm i.d. × lengths of 42, 80, and 100 mm (column volume: 132, 251, and 314 μL, respectively): gas pressure of 0.4 MPa (46, 21, 19 μL $min^{-1}$ flow rate for Th elution, respectively); and total process times of 3.2, 12.3, and 18.7 h, respectively.

**Fig. 5** Elution profiles of representative elements separated under the optimized conditions. The numbers indicate the fraction no. listed in Table 1. The broken lines indicate the change in elution composition. This separation used a particle size of 11 μm (CA08S), column size of 2 mm i.d. × 50 mm long, (column volume: 157 μL), gas pressure of 0.45 MPa (35 μL $min^{-1}$ flow rate for Th elution), and total process time of 5 h.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

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