

**S1 Table. Procedure of concentration methods for each laboratory**

| Laboratory ID | Concentration method | Detailed procedure*                                                                                                                                                                                                                               |
|---------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1             | PB cartridge         | Potassium zinc ferrocyanide PB cartridge, flow rate: 0.5 L/min, measured sample weight: 0.1 kg, coefficient for geometric correction: 1.59, measurement time: 43200 sec                                                                           |
| 2             | Evaporation          | Measured sample weight: 0.087 kg, measurement container: 100 ml with 5 cm diameter, measurement time: 160000 sec                                                                                                                                  |
| 3             | Solid-phase disk     | Measured sample weight: 0.001 kg, measurement container: 100 ml with 5 cm diameter, measurement time: 172800 sec                                                                                                                                  |
| 4             | AMP                  | Measured sample weight: 0.006 kg, measurement container: 15 mm of external diameter and 55 mm of height, measured by a well-type Ge-detector, measurement time: 10000 sec                                                                         |
| 5             | PB cartridge         | Potassium zinc ferrocyanide PB cartridge, measured sample weight: 0.05 kg, coefficient for geometric correction: 1.5, measurement time: 54000 sec                                                                                                 |
| 6             | AMP                  | Measured sample weight: 0.005 kg (incl. filter paper), measurement container: 100 ml with 5 cm diameter, measurement time: 86400 sec                                                                                                              |
| 7             | Evaporation          | Measured sample weight: 2.0 kg, measurement container: 2-L marinelli beakers, measurement time: 216000 sec                                                                                                                                        |
| 8             | AMP                  | Measured sample weight: 0.005 kg, measurement container: 100 ml with 5 cm diameter, measurement time: 80021 sec                                                                                                                                   |
| 9             | Evaporation          | Measured sample weight: 0.02 kg, measurement container: 100 ml with 5 cm diameter, measurement time: 86400 sec                                                                                                                                    |
| 10            | AMP                  | Measured sample weight: 0.002~0.005 kg, measurement container: 100 ml with 5 cm diameter, measurement time: 80000 sec                                                                                                                             |
| 11            | PB cartridge         | Potassium zinc ferrocyanide PB cartridge, measured sample weight: 0.05 kg, coefficient for geometric correction: 1.5, measurement time: 100000 sec                                                                                                |
| 12            | PB cartridge         | Potassium zinc ferrocyanide PB cartridge, flow rate: 2.5 L/min, measured sample weight: 0.07~0.08 kg, measurement time: 83317~228702 sec, prefiltrated.                                                                                           |
| 13            | Solid-phase disk     | Measured sample weight: 0.0008~0.0009 kg, measurement container: 100 ml with 5 cm diameter, measurement time: 80292~86870 sec, prefiltrated. Two disks were used for a sample due to clogging.                                                    |
| 14            | Evaporation          | Measured sample weight: 0.09 kg, measurement container: 100 ml with 5 cm diameter, measurement time: 200000 sec                                                                                                                                   |
| 15            | PB cartridge         | Potassium zinc ferrocyanide PB cartridge, measurement time: 144000~165600 sec                                                                                                                                                                     |
| 16            | PB cartridge         | Copper-substituted PB cartridge, flow rate 0.5 L/min (reverse the water flow to improve the recovery rate at the center of the cartridge), measured sample weight: 0.05 kg, measured by a coaxial Ge-detector, measurement time: 82800~600000 sec |
| 17            | AMP                  | Measured sample weight: 0.005 kg, measurement container: 50 ml with 5 cm diameter, measurement time: 77964~77966 sec                                                                                                                              |
| 18            | Evaporation          | Acidified with HNO <sub>3</sub> (1mL/L), measured sample weight: 0.05~0.06 kg, measurement container: 100 ml with 5 cm diameter, measurement time: 100000~180000 sec                                                                              |
| 19            | Solid-phase disk     | Measured sample weight: 0.002 kg, measurement time: 80000~90000 sec                                                                                                                                                                               |
| 20            | AMP                  | Measured sample weight: 0.01 kg, measurement container: 50 ml with 5 cm diameter, measurement time: 50000 sec                                                                                                                                     |
| 21            | PB cartridge         | Potassium zinc ferrocyanide PB cartridge, flow rate: 2.5 L/min, measured sample weight: 0.1 kg, correction coefficient: 1.50, measurement time: 43200 sec                                                                                         |
| 22            | PB cartridge         | Potassium zinc ferrocyanide PB cartridge, measured sample weight: 0.05 kg, measurement time: 57600 sec                                                                                                                                            |
| 23            | Ion-exchange resin   | 100 ml of Na <sup>+</sup> form cation exchange resin, measurement container: 100 ml with 5 cm diameter, measurement time: 170000 sec                                                                                                              |

\* According to a report from each laboratory