Electronic Supplementary Material (ESI) for Analytical Methods


# Stability and behaviour of spiked inorganic mercury in natural waters samples

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## Complementary data

**Table 1 Mercury stability in different waters stored in Teflon bottles. Labelled Hg concentration in coastal lagoon water samples stored in refrigerator conditions (darkness, 5°C).**

| storage time (d) | labelled Hg concentration[a] (ng $L^{-1}$) | | | |
|---|---|---|---|---|
| | treatment | replicate 1 | replicate 2 | replicate 3 |
| 0 (ref.) | total natural | 4.850 ± 0.057 | 5.029 ± 0.055 | 5.014 ± 0.056 |
| | filtered natural[b] | 4.039 ± 0.040 | 4.045 ± 0.049 | 3.899 ± 0.048 |
| | filtered acidified | 4.023 ± 0.045 | 3.832 ± 0.036 | 3.660 ± 0.036 |
| 1 | total natural | 4.640 ± 0.048 | 4.639 ± 0.045 | 4.802 ± 0.052 |
| | filtered natural[b] | 2.233 ± 0.028 | 2.260 ± 0.029 | 2.296 ± 0.027 |
| | filtered acidified | 4.021 ± 0.041 | 3.852 ± 0.041 | 3.712 ± 0.041 |
| 2 | total natural | 4.366 ± 0.048 | 4.370 ± 0.052 | 4.606 ± 0.048 |
| | filtered natural[b] | 2.079 ± 0.026 | 2.071 ± 0.025 | 1.965 ± 0.025 |
| | filtered acidified | 3.988 ± 0.045 | 3.869 ± 0.046 | 3.707 ± 0.047 |
| 5 | total natural | 4.034 ± 0.053 | 3.998 ± 0.065 | 4.115 ± 0.067 |
| | filtered natural[b] | 1.719 ± 0.031 | 1.870 ± 0.036 | 1.902 ± 0.032 |
| | filtered acidified | 4.227 ± 0.066 | 3.770 ± 0.060 | 3.675 ± 0.058 |
| 7 | total natural | 3.933 ± 0.063 | 4.357 ± 0.076 | 4.180 ± 0.065 |
| | filtered natural[b] | 1.461 ± 0.037 | 1.665 ± 0.041 | 1.790 ± 0.044 |
| | filtered acidified | 3.967 ± 0.077 | 3.858 ± 0.080 | 3.624 ± 0.078 |
| 9 | total natural | 3.773 ± 0.077 | 4.363 ± 0.083 | 4.384 ± 0.088 |
| | filtered natural[b] | 1.338 ± 0.045 | 1.749 ± 0.052 | 1.899 ± 0.051 |
| | filtered acidified | 3.959 ± 0.090 | 3.967 ± 0.092 | 3.802 ± 0.095 |
| 12 | total natural | 3.724 ± 0.08 | 4.103 ± 0.098 | 4.40 ± 0.11 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 4.042 ± 0.083 | 3.95 ± 0.12 | 3.36 ± 0.14 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] total water stored in natural condition and filtered immediately before measurement

**Table 2 Mercury stability in different waters stored in Teflon bottles. Labelled Hg concentration in coastal lagoon water samples stored in room conditions (illumination, 20°C).**

| storage time (d) | labelled Hg concentration[a] (ng $L^{-1}$) | | | |
|---|---|---|---|---|
| | treatment | replicate 1 | replicate 2 | replicate 3 |
| 0 (ref.) | total natural | 5.099 ± 0.053 | 4.845 ± 0.047 | 4.932 ± 0.051 |
| | filtered natural[b] | 4.024 ± 0.047 | 4.033 ± 0.048 | 3.783 ± 0.047 |
| | filtered acidified | 3.658 ± 0.041 | 3.417 ± 0.039 | 3.522 ± 0.041 |
| 1 | total natural | 4.410 ± 0.043 | 4.717 ± 0.044 | 4.439 ± 0.046 |
| | filtered natural[b] | 2.234 ± 0.028 | 2.176 ± 0.029 | 1.991 ± 0.026 |
| | filtered acidified | 3.705 ± 0.044 | 3.681 ± 0.040 | 3.543 ± 0.042 |
| 2 | total natural | 4.260 ± 0.048 | 4.521 ± 0.053 | 3.869 ± 0.046 |
| | filtered natural[b] | 1.993 ± 0.024 | 1.960 ± 0.028 | 1.719 ± 0.025 |
| | filtered acidified | 3.642 ± 0.041 | 3.509 ± 0.041 | 3.530 ± 0.044 |
| 5 | total natural | 4.160 ± 0.061 | 3.857 ± 0.056 | 2.445 ± 0.039 |
| | filtered natural[b] | 2.092 ± 0.036 | 2.282 ± 0.040 | 1.214 ± 0.026 |
| | filtered acidified | 3.498 ± 0.061 | 3.555 ± 0.054 | 3.490 ± 0.058 |
| 7 | total natural | 3.863 ± 0.068 | 4.086 ± 0.069 | 2.215 ± 0.059 |
| | filtered natural[b] | 2.034 ± 0.046 | 2.219 ± 0.047 | 1.201 ± 0.031 |
| | filtered acidified | 3.746 ± 0.077 | 3.441 ± 0.072 | 3.509 ± 0.080 |
| 9 | total natural | 4.02 ± 0.10 | 4.10 ± 0.10 | 2.499 ± 0.064 |
| | filtered natural[b] | 2.028 ± 0.053 | 2.287 ± 0.062 | 1.179 ± 0.046 |
| | filtered acidified | 3.631 ± 0.099 | 3.579 ± 0.093 | 3.664 ± 0.082 |
| 12 | total natural | 3.598 ± 0.088 | 4.16 ± 0.14 | 2.15 ± 0.11 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 3.70 ± 0.12 | 3.42 ± 0.11 | 3.42 ± 0.11 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] total water stored in natural condition and filtered immediately before measurement

**Table 3 Mercury stability in different waters stored in Teflon bottles. Labelled Hg concentration in marine water samples stored in refrigerator conditions (darkness, 5°C).**

| storage time (d) | labelled Hg concentration[a] (ng $L^{-1}$) | | | |
|---|---|---|---|---|
| | treatment | replicate 1 | replicate 2 | replicate 3 |
| 0 (ref.) | total natural | 4.908 ± 0.094 | 4.895 ± 0.094 | 5.016 ± 0.097 |
| | filtered natural[b] | 3.876 ± 0.079 | 3.988 ± 0.081 | 3.955 ± 0.080 |
| | filtered acidified | 3.820 ± 0.078 | 3.710 ± 0.076 | 3.767 ± 0.076 |
| 1 | total natural | 4.979 ± 0.098 | 4.806 ± 0.098 | 4.93 ± 0.10 |
| | filtered natural[b] | 2.629 ± 0.049 | 2.663 ± 0.059 | 2.733 ± 0.057 |
| | filtered acidified | 3.897 ± 0.084 | 3.910 ± 0.084 | 3.793 ± 0.082 |
| 2 | total natural | 5.070 ± 0.091 | 4.980 ± 0.081 | 4.927 ± 0.098 |
| | filtered natural[b] | 1.803 ± 0.042 | 1.793 ± 0.037 | 1.829 ± 0.046 |
| | filtered acidified | 3.987 ± 0.070 | 3.867 ± 0.077 | 3.896 ± 0.077 |
| 5 | total natural | 5.005 ± 0.097 | 4.806 ± 0.092 | 4.936 ± 0.093 |
| | filtered natural[b] | 1.161 ± 0.027 | 1.120 ± 0.030 | 1.150 ± 0.033 |
| | filtered acidified | 4.109 ± 0.089 | 3.954 ± 0.083 | 3.742 ± 0.077 |
| 7 | total natural | 4.81 ± 0.11 | 4.78 ± 0.11 | 4.85 ± 0.11 |
| | filtered natural[b] | 1.370 ± 0.041 | 1.315 ± 0.040 | 1.312 ± 0.040 |
| | filtered acidified | 4.046 ± 0.092 | 3.914 ± 0.082 | 3.746 ± 0.091 |
| 9 | total natural | 4.98 ± 0.11 | 5.11 ± 0.12 | 5.25 ± 0.12 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 4.20 ± 0.11 | 3.96 ± 0.10 | 3.810 ± 0.095 |
| 12 | total natural | 5.09 ± 0.16 | 5.02 ± 0.17 | 5.206 ± 0.079 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 4.32 ± 0.14 | 3.965 ± 0.087 | 3.95 ± 0.12 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] total water stored in natural condition and filtered immediately before measurement

**Table 4 Mercury stability in different waters stored in Teflon bottles. Labelled Hg concentration in marine water samples stored in room conditions (illumination, 20°C).**

| storage time (d) | labelled Hg concentration[a] (ng $L^{-1}$) | | | |
|---|---|---|---|---|
| | treatment | replicate 1 | replicate 2 | replicate 3 |
| 0 (ref.) | total natural | 4.934 ± 0.095 | 4.830 ± 0.093 | 4.910 ± 0.094 |
| | filtered natural[b] | 3.936 ± 0.080 | 3.894 ± 0.079 | 3.952 ± 0.081 |
| | filtered acidified | 3.592 ± 0.074 | 3.514 ± 0.073 | 3.406 ± 0.071 |
| 1 | total natural | 5.188 ± 0.097 | 5.014 ± 0.098 | 4.969 ± 0.099 |
| | filtered natural[b] | 1.452 ± 0.036 | 1.505 ± 0.043 | 1.462 ± 0.040 |
| | filtered acidified | 3.717 ± 0.068 | 3.582 ± 0.071 | 3.367 ± 0.072 |
| 2 | total natural | 5.097 ± 0.095 | 5.18 ± 0.10 | 5.04 ± 0.094 |
| | filtered natural[b] | 1.049 ± 0.028 | 1.026 ± 0.030 | 1.013 ± 0.027 |
| | filtered acidified | 3.918 ± 0.079 | 3.575 ± 0.063 | 3.618 ± 0.064 |
| 5 | total natural | 4.97 ± 0.10 | 5.14 ± 0.10 | 5.01 ± 0.10 |
| | filtered natural[b] | 0.905 ± 0.030 | 0.967 ± 0.029 | 0.911 ± 0.027 |
| | filtered acidified | 3.829 ± 0.070 | 3.589 ± 0.075 | 3.572 ± 0.073 |
| 7 | total natural | 4.97 ± 0.11 | 5.09 ± 0.11 | 4.99 ± 0.11 |
| | filtered natural[b] | 0.835 ± .028 | 0.822 ± 0.029 | 0.797 ± 0.013 |
| | filtered acidified | 3.772 ± 0.082 | 3.505 ± 0.083 | 3.658 ± 0.083 |
| 9 | total natural | 4.74 ± 0.12 | 5.01 ± 0.10 | 4.98 ± 0.10 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 3.845 ± 0.097 | 3.589 ± 0.089 | 3.66 ± 0.10 |
| 12 | total natural | 4.79 ± 0.15 | 5.14 ± 0.16 | 4.88 ± 0.15 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 3.79 ± 0.12 | 3.611 ± 0.058 | 3.610 ± 0.084 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] total water stored in natural condition and filtered immediately before measurement

**Table 5 Mercury stability in different waters stored in Teflon bottles. Labelled Hg concentration in river water samples stored in refrigerator conditions (darkness, 5°C).**

| storage time (d) | labelled Hg concentration[a] (ng $L^{-1}$) | | | |
|---|---|---|---|---|
| | treatment | replicate 1 | replicate 2 | replicate 3 |
| 0 (ref.) | total natural | 4.051 ± 0.059 | 4.109 ± 0.061 | 4.052 ± 0.057 |
| | filtered natural[b] | 3.055 ± 0.047 | 3.003 ± 0.044 | 2.953 ± 0.042 |
| | filtered acidified | 3.614 ± 0.053 | 3.700 ± 0.052 | 3.651 ± 0.048 |
| 1 | total natural | 3.730 ± 0.056 | 3.687 ± 0.052 | 3.788 ± 0.058 |
| | filtered natural[b] | 2.084 ± 0.032 | 2.049 ± 0.031 | 2.146 ± 0.033 |
| | filtered acidified | 3.685 ± 0.052 | 3.671 ± 0.052 | 3.362 ± 0.050 |
| 2 | total natural | 3.538 ± 0.054 | 3.509 ± 0.054 | 3.558 ± 0.054 |
| | filtered natural[b] | 1.802 ± 0.028 | 1.787 ± 0.027 | 1.847 ± 0.029 |
| | filtered acidified | 3.633 ± 0.054 | 3.604 ± 0.052 | 3.098 ± 0.044 |
| 3 | total natural | 3.485 ± 0.052 | 3.435 ± 0.054 | 3.442 ± 0.053 |
| | filtered natural[b] | 1.695 ± 0.028 | 1.699 ± 0.029 | 1.690 ± 0.027 |
| | filtered acidified | 3.691 ± 0.053 | 3.684 ± 0.055 | 2.997 ± 0.048 |
| 6 | total natural | 3.117 ± 0.060 | 3.020 ± 0.060 | 3.148 ± 0.066 |
| | filtered natural[b] | 1.688 ± 0.035 | 1.519 ± 0.029 | 1.672 ± 0.034 |
| | filtered acidified | 3.718 ± 0.068 | 3.479 ± 0.066 | 2.946 ± 0.060 |
| 8 | total natural | 2.826 ± 0.061 | 2.781 ± 0.063 | 3.140 ± 0.046 |
| | filtered natural[b] | 1.626 ± 0.039 | 1.559 ± 0.038 | 1.607 ± 0.042 |
| | filtered acidified | 3.712 ± 0.074 | 3.636 ± 0.089 | 2.821 ± 0.068 |
| 10 | total natural | 2.770 ± 0.073 | 2.736 ± 0.071 | 3.080 ± 0.063 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 3.709 ± 0.077 | 3.776 ± 0.046 | 2.944 ± 0.068 |
| 13 | total natural | 2.933 ± 0.092 | 2.859 ± 0.090 | 3.15 ± 0.11 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 3.591 ± 0.097 | 3.38 ± 0.11 | 3.016 ± 0.094 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] total water stored in natural condition and filtered immediately before measurement

**Table 6 Mercury stability in different waters stored in Teflon bottles. Labelled Hg concentration in river water samples stored in room conditions (illumination, 20°C).**

| storage time (d) | labelled Hg concentration[a] (ng $L^{-1}$) | | | |
|---|---|---|---|---|
| | treatment | replicate 1 | replicate 2 | replicate 3 |
| 0 (ref.) | total natural | 4.093 ± 0.061 | 4.042 ± 0.060 | 4.233 ± 0.051 |
| | filtered natural[b] | 3.062 ± 0.047 | 2.978 ± 0.042 | 3.128 ± 0.046 |
| | filtered acidified | 3.815 ± 0.050 | 3.703 ± 0.050 | 3.793 ± 0.053 |
| 1 | total natural | 3.913 ± 0.057 | 3.728 ± 0.057 | 3.974 ± 0.061 |
| | filtered natural[b] | 1.999 ± 0.031 | 1.905 ± 0.029 | 1.973 ± 0.031 |
| | filtered acidified | 4.020 ± 0.061 | 3.379 ± 0.049 | 3.695 ± 0.053 |
| 2 | total natural | 3.650 ± 0.056 | 3.286 ± 0.050 | 3.583 ± 0.055 |
| | filtered natural[b] | 1.906 ± 0.029 | 1.708 ± 0.027 | 1.992 ± 0.030 |
| | filtered acidified | 3.837 ± 0.059 | 3.476 ± 0.053 | 3.881 ± 0.059 |
| 3 | total natural | 3.444 ± 0.053 | 3.014 ± 0.049 | 3.382 ± 0.054 |
| | filtered natural[b] | 1.941 ± 0.030 | 1.711 ± 0.027 | 1.914 ± 0.030 |
| | filtered acidified | 3.785 ± 0.059 | 3.563 ± 0.052 | 3.845 ± 0.057 |
| 6 | total natural | 3.317 ± 0.062 | - | 3.266 ± 0.044 |
| | filtered natural[b] | 1.699 ± 0.033 | 1.500 ± 0.032 | 1.658 ± 0.035 |
| | filtered acidified | 3.895 ± 0.069 | 3.625 ± 0.064 | 3.944 ± 0.064 |
| 8 | total natural | 3.209 ± 0.067 | 2.681 ± 0.065 | 3.177 ± 0.060 |
| | filtered natural[b] | 1.519 ± 0.034 | 1.287 ± 0.036 | 1.459 ± 0.037 |
| | filtered acidified | 3.901 ± 0.084 | 3.592 ± 0.085 | 3.933 ± 0.090 |
| 10 | total natural | 3.402 ± 0.058 | 2.877 ± 0.072 | 3.143 ± 0.068 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 3.903 ± 0.087 | 3.828 ± 0.074 | 3.931 ± 0.075 |
| 13 | total natural | 2.393 ± 0.037 | 2.665 ± 0.081 | 2.974 ± 0.11 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 3.914 ± 0.086 | 3.91 ± 0.12 | 3.84 ± 0.12 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] total water stored in natural condition and filtered immediately before measurement

**Table 7 Mercury stability in different waters stored in Teflon bottles. Labelled Hg concentration in lake water samples stored in refrigerator conditions (darkness, 5°C).**

| storage time (d) | labelled Hg concentration[a] (ng $L^{-1}$) | | | |
|---|---|---|---|---|
| | treatment | replicate 1 | replicate 2 | replicate 3 |
| 0 (ref.) | total natural | 4.343 ± 0.039 | 4.407 ± 0.038 | 4.401 ± 0.031 |
| | filtered natural[b] | 3.615 ± 0.036 | 3.217 ± 0.031 | 3.376 ± 0.031 |
| | filtered acidified | 3.021 ± 0.032 | 3.047 ± 0.025 | 2.914 ± 0.028 |
| 1 | total natural | 4.442 ± 0.046 | 4.411 ± 0.044 | 4.431 ± 0.040 |
| | filtered natural[b] | 1.982 ± 0.023 | 2.097 ± 0.026 | 2.137 ± 0.026 |
| | filtered acidified | 3.029 ± 0.030 | 3.034 ± 0.037 | 2.932 ± 0.032 |
| 2 | total natural | 4.479 ± 0.044 | 4.457 ± 0.044 | 4.460 ± 0.050 |
| | filtered natural[b] | 1.754 ± 0.021 | 1.674 ± 0.021 | 1.754 ± 0.021 |
| | filtered acidified | 3.003 ± 0.034 | 2.922 ± 0.035 | 2.870 ± 0.033 |
| 3 | total natural | 4.396 ± 0.047 | 4.432 ± 0.043 | 4.673 ± 0.053 |
| | filtered natural[b] | 1.574 ± 0.017 | 1.653 ± 0.024 | 1.574 ± 0.025 |
| | filtered acidified | 3.049 ± 0.039 | 2.891 ± 0.035 | 2.925 ± 0.035 |
| 6 | total natural | 4.344 ± 0.059 | 4.818 ± 0.084 | 4.697 ± 0.082 |
| | filtered natural[b] | 1.237 ± 0.032 | 1.235 ± 0.032 | 1.260 ± 0.031 |
| | filtered acidified | 2.941 ± 0.057 | 2.847 ± 0.060 | 2.991 ± 0.070 |
| 8 | total natural | 4.263 ± 0.083 | 4.660 ± 0.087 | 4.506 ± 0.092 |
| | filtered natural[b] | 1.118 ± 0.035 | 1.071 ± 0.039 | 1.104 ± 0.035 |
| | filtered acidified | 2.756 ± 0.080 | 2.798 ± 0.079 | 2.875 ± 0.083 |
| 10 | total natural | 4.56 ± 0.10 | 4.19 ± 0.12 | 4.54 ± 0.11 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 2.891 ± 0.083 | 2.821 ± 0.093 | 2.813 ± 0.098 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] total water stored in natural condition and filtered immediately before measurement

**Table 8 Mercury stability in different waters stored in Teflon bottles. Labelled Hg concentration in lake water samples stored in room conditions (illumination, 20°C).**

| storage time (d) | labelled Hg concentration[a] (ng $L^{-1}$) | | | |
|---|---|---|---|---|
| | treatment | replicate 1 | replicate 2 | replicate 3 |
| 0 (ref.) | total natural | 4.341 ± 0.038 | 4.438 ± 0.038 | 4.467 ± 0.047 |
| | filtered natural[b] | 3.365 ± 0.033 | 3.356 ± 0.029 | 3.546 ± 0.029 |
| | filtered acidified | 2.938 ± 0.031 | 2.912 ± 0.028 | 2.966 ± 0.029 |
| 1 | total natural | 4.311 ± 0.041 | 4.257 ± 0.044 | 4.493 ± 0.039 |
| | filtered natural[b] | 1.492 ± 0.019 | 1.983 ± 0.024 | 1.683 ± 0.010 |
| | filtered acidified | 2.956 ± 0.032 | 3.071 ± 0.040 | 2.964 ± 0.036 |
| 2 | total natural | 4.119 ± 0.039 | 4.401 ± 0.042 | 4.611 ± 0.050 |
| | filtered natural[b] | 1.028 ± 0.017 | 1.178 ± 0.017 | 1.293 ± 0.010 |
| | filtered acidified | 3.138 ± 0.030 | 2.888 ± 0.031 | 2.946 ± 0.040 |
| 3 | total natural | 4.334 ± 0.053 | 4.546 ± 0.051 | 4.840 ± 0.059 |
| | filtered natural[b] | 1.001 ± 0.018 | 0.936 ± 0.010 | 1.087 ± 0.019 |
| | filtered acidified | 3.085 ± 0.038 | 2.801 ± 0.036 | 2.894 ± 0.041 |
| 6 | total natural | 4.571 ± 0.076 | - | 4.736 ± 0.087 |
| | filtered natural[b] | 0.719 ± 0.025 | 0.868 ± 0.027 | 0.803 ± 0.024 |
| | filtered acidified | - | 2.828 ± 0.067 | 2.772 ± 0.065 |
| 8 | total natural | 4.76 ± 0.11 | 4.86 ± 0.12 | 4.78 ± 0.13 |
| | filtered natural[b] | 0.723 ± 0.038 | 0.731 ± 0.032 | 0.735 ± 0.037 |
| | filtered acidified | 2.857 ± 0.074 | 2.861 ± 0.087 | 2.843 ± 0.025 |
| 10 | total natural | 4.57 ± 0.11 | 4.65 ± 0.12 | 4.82 ± 0.13 |
| | filtered natural[b] | - | - | - |
| | filtered acidified | 3.063 ± 0.094 | 2.641 ± 0.025 | 2.877 ± 0.086 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] total water stored in natural condition and filtered immediately before measurement

**Table 9 Mercury stability in different waters stored in Teflon bottles. Labelled Hg concentration in rain water samples.**

| storage condition | storage time (d) | labelled Hg concentration[a] (ng $L^{-1}$) | | |
|---|---|---|---|---|
| | | replicate 1 | replicate 2 | replicate 3 |
| refrigerator 5°C | 0 (ref.) | 6.16 ± 0.11 | 5.23 ± 0.10 | 5.27 ± 0.10 |
| | 1 | 5.74 ± 0.11 | 5.49 ± 0.11 | 5.36 ± 0.11 |
| | 2 | 5.73 ± 0.12 | 5.54 ± 0.11 | 5.41 ± 0.11 |
| | 5 | 5.74 ± 0.11 | 5.49 ± 0.11 | 5.36 ± 0.11 |
| | 7 | 5.67 ± 0.12 | 5.55 ± 0.12 | 5.14 ± 0.12 |
| | 9 | 6.03 ± 0.13 | 5.64 ± 0.12 | 5.34 ± 0.13 |
| | 12 | 5.46 ± 0.16 | 5.58 ± 0.15 | 5.52 ± 0.17 |
| room 20°C | 0 (ref.) | 5.18 ± 0.10 | 5.22 ± 0.10 | 5.11 ± 0.10 |
| | 1 | 5.58 ± 0.10 | 5.57 ± 0.11 | 5.26 ± 0.10 |
| | 2 | 5.55 ± 0.11 | 5.23 ± 0.10 | 5.30 ± 0.10 |
| | 5 | 5.58 ± 0.10 | 5.57 ± 0.11 | 5.26 ± 0.10 |
| | 7 | 5.46 ± 0.11 | 5.47 ± 0.11 | 5.38 ± 0.12 |
| | 9 | 5.47 ± 0.14 | 5.40 ± 0.12 | 5.40 ± 0.14 |
| | 12 | 5.08 ± 0.16 | 4.98 ± 0.10 | 5.19 ± 0.11 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

**Table 10 Effect of the pH variation by sequentially HCl addition Labelled Hg concentration in marine water samples**

| | replicate 1 | | replicate 2 | | replicate 3 | |
|---|---|---|---|---|---|---|
| | pH | Hg conc. (ng $L^{-1}$) | pH | Hg conc. (ng $L^{-1}$) | pH | Hg conc. (ng $L^{-1}$) |
| Time 0 total | **8.06** | 8.59 ± 0.15 | **8.06** | 8.26 ± 0.14 | **8.03** | 8.42 ± 0.14 |
| Time 0 filtered | | 7.07 ± 0.12 | | 6.97 ± 0.12 | | 6.92 ± 0.12 |
| Time 1 total | **8.01** | 6.17 ± 0.11 | **7.96** | 5.46 ± 0.11 | **8.00** | 6.62 ± 0.13 |
| Time 1 filtered | | 3.926 ± 0.074 | | 3.231 ± 0.064 | | 3.892 ± 0.074 |
| 5case A total | **7.03** | 5.41 ± 0.11 | **7.00** | 5.15 ± 0.10 | **7.00** | 6.13 ± 0.11 |
| case A filtered | | 2.981 ± 0.061 | | 2.868 ± 0.059 | | 3.700 ± 0.078 |
| case B total | **6.00** | 4.682 ± 0.095 | **6.01** | 4.378 ± 0.087 | **6.00** | 5.32 ± 0.11 |
| case B filtered | | 2.459 ± 0.050 | | 2.287 ± 0.049 | | 2.959 ± 0.059 |
| case C total | **5.43** | 4.455 ± 0.086 | **5.59** | 4.484 ± 0.094 | **5.62** | 5.01 ± 0.12 |
| case C filtered | | 1.999 ± 0.047 | | 1.885 ± 0.033 | | 2.283 ± 0.053 |
| case D total | **3.60** | 4.081 ± 0.099 | **3.84** | 4.307 ± 0.096 | **3.87** | 5.133 ± 0.086 |
| case D filtered | | 2.125 ± 0.047 | | 1.818 ± 0.047 | | 1.878 ± 0.053 |
| case E total | **2.57** | 3.53 ± 0.11 | **2.62** | 4.13 ± 0.12 | **2.63** | 4.65 ± 0.13 |
| case E filtered | | 1.564 ± 0.046 | | 1.487 ± 0.047 | | 1.495 ± 0.050 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

**Table 11 Effect of the pH variation by sequentially HCl addition Labelled Hg concentration in lake water samples**

| | replicate 1 | | replicate 2 | | replicate 3 | |
|---|---|---|---|---|---|---|
| | pH | Hg conc. (ng $L^{-1}$) | pH | Hg conc. (ng $L^{-1}$) | pH | Hg conc. (ng $L^{-1}$) |
| Time 0 total | **7.86** | 8.93 ± 0.15 | **7.72** | 8.85 ± 0.15 | **7.73** | 8.85 ± 0.15 |
| Time 0 filtered | | 6.15 ± 0.11 | | 6.21 ± 0.11 | | 6.33 ± 0.11 |
| Time 1 total | **7.84** | 8.16 ± 0.15 | **7.74** | 8.24 ± 0.15 | **7.72** | 8.79 ± 0.16 |
| Time 1 filtered | | 3.249 ± 0.059 | | 3.369 ± 0.064 | | 3.581 ± 0.067 |
| case A total | **7.02** | 8.13 ± 0.15 | **6.95** | 8.52 ± 0.16 | **6.93** | 8.43 ± 0.16 |
| case A filtered | | 3.031 ± 0.060 | | 3.226 ± 0.057 | | 3.034 ± 0.055 |
| case B total | **6.04** | 8.30 ± 0.15 | **5.95** | 8.53 ± 0.16 | **5.80** | 8.46 ± 0.15 |
| case B filtered | | 2.871 ± 0.059 | | 3.056 ± 0.052 | | 3.038 ± 0.061 |
| case C total | **-** | - | **5.22** | 8.31 ± 0.17 | **4.97** | 8.37 ± 0.18 |
| case C filtered | | - | | 2.696 ± 0.054 | | 2.585 ± 0.059 |
| case D total | **4.01** | 8.05 ± 0.15 | **3.72** | 8.26 ± 0.19 | **3.60** | 8.32 ± 0.19 |
| case D filtered | | 2.352 ± 0.067 | | 2.372 ± 0.056 | | 2.308 ± 0.076 |
| case E total | **2.60** | 8.33 ± 0.19 | **2.57** | 7.64 ± 0.19 | **2.52** | 7.64 ± 0.19 |
| case E filtered | | 1.667 ± 0.061 | | 1.982 ± 0.059 | | 2.020 ± 0.062 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

**Table 12 Mercury stability in different materials: Teflon. Labelled Hg concentration in lake water.**

| storage time (d) | condition | Hg concentration (ng $L^{-1}$) | | |
|---|---|---|---|---|
| | | replicate 1[a] | replicate 2[a] | replicate 3[a] |
| 0 (ref.) | room, acidified[b] | 12.45 ± 0.12 | 12.43 ± 0.12 | 11.96 ± 0.11 |
| | refrigerator, acidified[b] | 12.57 ± 0.11 | 12.204 ± 0.089 | 12.568 ± 0.096 |
| | room, natural | 12.704 ± 0.093 | 12.466 ± 0.090 | 12.464 ± 0.098 |
| | refrigerator, natural | 12.45 ± 0.12 | 12.525 ± 0.089 | 12.87 ± 0.10 |
| 1 | room, acidified[b] | 11.75 ± 0.11 | 11.99 ± 0.10 | 11.65 ± 0.10 |
| | refrigerator, acidified[b] | 12.26 ± 0.11 | 12.42 ± 0.12 | 11.79 ± 0.11 |
| | room, natural | 11.35 ± 0.11 | 11.54 ± 0.11 | 11.50 ± 0.11 |
| | refrigerator, natural | 11.63 ± 0.14 | 11.69 ± 0.11 | 12.04 ± 0.11 |
| 2 | room, acidified[b] | 11.94 ± 0.12 | 11.96 ± 0.11 | 11.91 ± 0.11 |
| | refrigerator, acidified[b] | 12.04 ± 0.12 | 11.99 ± 0.12 | 11.77 ± 0.12 |
| | room, natural | 11.44 ± 0.11 | 11.48 ± 0.11 | 11.801 ± 0.092 |
| | refrigerator, natural | 11.28 ± 0.11 | 11.75 ± 0.12 | 11.47 ± 0.12 |
| 3 | room, acidified[b] | 11.82 ± 0.11 | 11.85 ± 0.11 | 12.22 ± 0.11 |
| | refrigerator, acidified[b] | 11.57 ± 0.12 | 11.85 ± 0.13 | 11.87 ± 0.12 |
| | room, natural | 12.43 ± 0.13 | 12.35 ± 0.12 | 12.09 ± 0.11 |
| | refrigerator, natural | 11.60 ± 0.11 | 11.69 ± 0.11 | 11.83 ± 0.12 |
| 6 | room, acidified[b] | 11.52 ± 0.14 | 11.94 ± 0.14 | 12.08 ± 0.17 |
| | refrigerator, acidified[b] | 11.89 ± 0.14 | 12.34 ± 0.15 | 11.98 ± 0.15 |
| | room, natural | 13.08 ± 0.14 | 12.71 ± 0.17 | 12.99 ± 0.18 |
| | refrigerator, natural | 12.07 ± 0.15 | 11.92 ± 0.15 | 12.14 ± 0.14 |
| 8 | room, acidified[b] | 11.51 ± 0.18 | 12.01 ± 0.19 | 12.03 ± 0.18 |
| | refrigerator, acidified[b] | 11.42 ± 0.18 | 11.65 ± 0.21 | 11.44 ± 0.19 |
| | room, natural | 12.36 ± 0.20 | 11.98 ± 0.18 | 12.43 ± 0.17 |
| | refrigerator, natural | 11.73 ± 0.21 | 11.34 ± 0.21 | 11.69 ± 0.20 |
| 10 | room, acidified[b] | 12.26 ± 0.16 | 11.93 ± 0.22 | 12.46 ± 0.24 |
| | refrigerator, acidified[b] | 11.99 ± 0.26 | 11.91 ± 0.25 | 11.54 ± 0.27 |
| | room, natural | 12.79 ± 0.26 | 12.76 ± 0.27 | 12.54 ± 0.21 |
| | refrigerator, natural | 11.91 ± 0.22 | 11.83 ± 0.26 | 12.57 ± 0.23 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] 1 % HCl

**Table 13 Mercury stability in different materials: borosilicate glass. Labelled Hg concentration in lake water.**

| storage time (d) | condition | Hg concentration (ng $L^{-1}$) | | |
|---|---|---|---|---|
| | | replicate 1[a] | replicate 2[a] | replicate 3[a] |
| 0 (ref.) | room, acidified[b] | 12.16 ± 0.11 | 12.240 ± 0.098 | 12.39 ± 0.10 |
| | refrigerator, acidified[b] | 12.33 ± 0.11 | 12.49 ± 0.12 | 12.45 ± 0.11 |
| | room, natural | 12.77 ± 0.12 | 12.77 ± 0.12 | 12.77 ± 0.12 |
| | refrigerator, natural | 12.79 ± 0.12 | 12.56 ± 0.12 | 12.35 ± 0.12 |
| 1 | room, acidified[b] | 12.47 ± 0.10 | 11.584 ± 0.090 | 12.77 ± 0.10 |
| | refrigerator, acidified[b] | 12.086 ± 0.098 | 12.065 ± 0.091 | 12.169 ± 0.093 |
| | room, natural | 13.32 ± 0.11 | 13.229 ± 0.095 | 13.27 ± 0.11 |
| | refrigerator, natural | 12.69 ± 0.10 | 12.50 ± 0.11 | 12.37 ± 0.12 |
| 2 | room, acidified[b] | 12.46 ± 0.11 | 11.92 ± 0.11 | 12.50 ± 0.11 |
| | refrigerator, acidified[b] | 12.64 ± 0.10 | 12.25 ± 0.10 | 12.41 ± 0.13 |
| | room, natural | 13.16 ± 0.10 | 12.91 ± 0.11 | 12.852 ± 0.096 |
| | refrigerator, natural | 13.27 ± 0.12 | 12.96 ± 0.12 | 13.11 ± 0.13 |
| 3 | room, acidified[b] | 12.36 ± 0.11 | 12.38 ± 0.11 | 12.69 ± 0.11 |
| | refrigerator, acidified[b] | 11.79 ± 0.13 | 12.23 ± 0.13 | 12.39 ± 0.13 |
| | room, natural | 13.58 ± 0.12 | 13.94 ± 0.12 | 13.62 ± 0.21 |
| | refrigerator, natural | 13.39 ± 0.14 | 13.13 ± 0.13 | 13.18 ± 0.14 |
| 6 | room, acidified[b] | 12.40 ± 0.17 | 12.51 ± 0.14 | 12.70 ± 0.15 |
| | refrigerator, acidified[b] | 12.77 ± 0.18 | 12.24 ± 0.14 | 12.43 ± 0.15 |
| | room, natural | 13.23 ± 0.18 | 13.53 ± 0.18 | 13.53 ± 0.18 |
| | refrigerator, natural | 13.39 ± 0.18 | 13.20 ± 0.18 | 13.07 ± 0.18 |
| 8 | room, acidified[b] | 12.40 ± 0.19 | 12.32 ± 0.19 | 12.50 ± 0.19 |
| | refrigerator, acidified[b] | 12.40 ± 0.22 | 12.14 ± 0.19 | 12.18 ± 0.18 |
| | room, natural | 13.34 ± 0.20 | 13.52 ± 0.22 | 13.57 ± 0.17 |
| | refrigerator, natural | 13.01 ± 0.20 | 12.78 ± 0.18 | 12.98 ± 0.23 |
| 10 | room, acidified[b] | 12.64 ± 0.24 | 12.71 ± 0.22 | 12.77 ± 0.23 |
| | refrigerator, acidified[b] | 12.83 ± 0.28 | 12.28 ± 0.26 | 13.07 ± 0.28 |
| | room, natural | 13.82 ± 0.25 | 14.10 ± 0.25 | 14.00 ± 0.27 |
| | refrigerator, natural | 14.04 ± 0.29 | 13.41 ± 0.24 | 13.28 ± 0.23 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] 1 % HCl

**Table 14 Mercury stability in different materials: polyethylene. Labelled Hg concentration in lake water.**

| storage time (d) | condition | Hg concentration (ng $L^{-1}$) | | |
|---|---|---|---|---|
| | | replicate 1[a] | replicate 2[a] | replicate 3[a] |
| 0 (ref.) | room, acidified[b] | 11.88 ± 0.13 | 11.06 ± 0.11 | 11.70 ± 0.11 |
| | refrigerator, acidified[b] | 11.90 ± 0.11 | 12.134 ± 0.094 | 11.781 ± 0.098 |
| | room, natural | 12.177 ± 0.096 | 11.526 ± 0.094 | 12.486 ± 0.096 |
| | refrigerator, natural | 12.439 ± 0.093 | 12.94 ± 0.11 | 12.69 ± 0.12 |
| 1 | room, acidified[b] | 11.00 ± 0.10 | 11.021 ± 0.093 | 11.11 ± 0.10 |
| | refrigerator, acidified[b] | 11.19 ± 0.10 | 10.982 ± 0.092 | 10.37 ± 0.10 |
| | room, natural | 10.828 ± 0.088 | 10.925 ± 0.086 | 11.086 ± 0.089 |
| | refrigerator, natural | 10.99 ± 0.11 | 11.44 ± 0.11 | 11.15 ± 0.11 |
| 2 | room, acidified[b] | 10.83 ± 0.17 | 10.71 ± 0.11 | 10.78 ± 0.10 |
| | refrigerator, acidified[b] | 11.209 ± 0.094 | 10.813 ± 0.097 | 10.99 ± 0.11 |
| | room, natural | 10.356 ± 0.097 | 10.66 ± 0.11 | 10.91 ± 0.11 |
| | refrigerator, natural | 11.323 ± 0.090 | 11.382 ± 0.091 | 11.384 ± 0.097 |
| 3 | room, acidified[b] | 10.47 ± 0.11 | 10.44 ± 0.11 | 10.58 ± 0.10 |
| | refrigerator, acidified[b] | 10.79 ± 0.11 | 10.71 ± 0.11 | 10.87 ± 0.11 |
| | room, natural | 10.69 ± 0.12 | 11.10 ± 0.11 | 11.146 ± 0.098 |
| | refrigerator, natural | 11.39 ± 0.11 | 11.25 ± 0.11 | 11.06 ± 0.10 |
| 6 | room, acidified[b] | 10.01 ± 0.13 | 10.20 ± 0.15 | 10.33 ± 0.14 |
| | refrigerator, acidified[b] | 10.26 ± 0.10 | 9.87 ± 0.14 | 10.03 ± 0.12 |
| | room, natural | 10.73 ± 0.16 | 11.16 ± 0.14 | 11.08 ± 0.13 |
| | refrigerator, natural | 10.62 ± 0.15 | 10.95 ± 0.14 | 10.96 ± 0.14 |
| 8 | room, acidified[b] | 9.86 ± 0.16 | 10.16 ± 0.18 | 10.06 ± 0.14 |
| | refrigerator, acidified[b] | 10.24 ± 0.13 | 8.92 ± 0.14 | 10.10 ± 0.17 |
| | room, natural | 10.90 ± 0.17 | 11.64 ± 0.16 | 11.61 ± 0.18 |
| | refrigerator, natural | 10.22 ± 0.18 | 10.91 ± 0.16 | 11.47 ± 0.18 |
| 10 | room, acidified[b] | 9.83 ± 0.18 | 9.86 ± 0.17 | 9.78 ± 0.21 |
| | refrigerator, acidified[b] | 9.39 ± 0.21 | 8.98 ± 0.21 | 10.55 ± 0.20 |
| | room, natural | 10.56 ± 0.22 | 11.23 ± 0.23 | 11.10 ± 0.25 |
| | refrigerator, natural | 10.94 ± 0.20 | 11.54 ± 0.22 | 11.36 ± 0.24 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] 1 % HCl

**Table 15 Mercury stability in different materials: Teflon. Labelled Hg concentration in marine water.**

| storage time (d) | condition | Hg concentration (ng $L^{-1}$) | | |
|---|---|---|---|---|
| | | replicate 1[a] | replicate 2[a] | replicate 3[a] |
| 0 (ref.) | room, acidified[b] | 13.211 ± 0.094 | 13.228 ± 0.092 | 13.077 ± 0.094 |
| | refrigerator, acidified[b] | 13.074 ± 0.095 | 12.432 ± 0.084 | 12.753 ± 0.089 |
| | room, natural | 12.585 ± 0.093 | 12.327 ± 0.083 | 12.256 ± 0.083 |
| | refrigerator, natural | 12.380 ± 0.087 | 12.366 ± 0.082 | 12.091 ± 0.081 |
| 1 | room, acidified[b] | 13.07 ± 0.12 | 13.13 ± 0.11 | 13.13 ± 0.11 |
| | refrigerator, acidified[b] | 13.03 ± 0.11 | 12.655 ± 0.093 | 12.84 ± 0.11 |
| | room, natural | 9.002 ± 0.084 | 9.262 ± 0.081 | 9.263 ± 0.085 |
| | refrigerator, natural | 9.808 ± 0.091 | 9.730 ± 0.091 | 10.034 ± 0.093 |
| 3 | room, acidified[b] | 13.67 ± 0.13 | 13.42 ± 0.11 | 13.91 ± 0.13 |
| | refrigerator, acidified[b] | 13.23 ± 0.12 | 12.67 ± 0.13 | 12.79 ± 0.12 |
| | room, natural | 7.032 ± 0.080 | 7.436 ± 0.077 | 7.961 ± 0.089 |
| | refrigerator, natural | 8.39 ± 0.10 | 8.139 ± 0.096 | 8.84 ± 0.10 |
| 6 | room, acidified[b] | 13.46 ± 0.18 | 13.60 ± 0.18 | 13.21 ± 0.17 |
| | refrigerator, acidified[b] | 12.72 ± 0.16 | 12.77 ± 0.17 | 13.85 ± 0.19 |
| | room, natural | 5.395 ± 0.094 | 6.470 ± 0.088 | 5.472 ± 0.097 |
| | refrigerator, natural | 7.72 ± 0.11 | 9.39 ± 0.15 | 8.35 ± 0.12 |
| 7 | room, acidified[b] | - | 13.05 ± 0.17 | 13.04 ± 0.16 |
| | refrigerator, acidified[b] | 13.76 ± 0.21 | 13.42 ± 0.20 | 13.17 ± 0.20 |
| | room, natural | 5.80 ± 0.12 | 6.456 ± 0.099 | 6.70 ± 0.13 |
| | refrigerator, natural | 7.56 ± 0.11 | 7.80 ± 0.15 | 7.82 ± 0.12 |
| 10 | room, acidified[b] | 12.69 ± 0.27 | 13.16 ± 0.28 | 13.18 ± 0.24 |
| | refrigerator, acidified[b] | 13.84 ± 0.29 | 12.39 ± 0.27 | 12.87 ± 0.27 |
| | room, natural | 4.88 ± 0.14 | 5.21 ± 0.13 | 6.77 ± 0.17 |
| | refrigerator, natural | 6.38 ± 0.15 | 6.25 ± 0.19 | 7.30 ± 0.19 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] 1 % HCl

**Table 16 Mercury stability in different materials: borosilicate glass. Labelled Hg concentration in marine water.**

| storage time (d) | condition | Hg concentration (ng $L^{-1}$) | | |
|---|---|---|---|---|
| | | replicate 1[a] | replicate 2[a] | replicate 3[a] |
| 0 (ref.) | room, acidified[b] | 12.330 ± 0.086 | 12.43 ± 0.11 | 12.286 ± 0.093 |
| | refrigerator, acidified[b] | 12.16 ± 0.11 | 12.63 ± 0.11 | 12.21 ± 0.11 |
| | room, natural | 12.31 ± 0.11 | 12.28 ± 0.11 | 12.11 ± 0.11 |
| | refrigerator, natural | 12.10 ± 0.11 | 11.894 ± 0.098 | 12.26 ± 0.11 |
| 1 | room, acidified[b] | 13.49 ± 0.10 | 12.93 ± 0.10 | 13.27 ± 0.11 |
| | refrigerator, acidified[b] | 13.51 ± 0.12 | 12.59 ± 0.11 | 12.48 ± 0.11 |
| | room, natural | 11.526 ± 0.092 | 11.118 ± 0.097 | 11.273 ± 0.093 |
| | refrigerator, natural | 11.38 ± 0.10 | 11.829 ± 0.094 | 11.66 ± 0.12 |
| 3 | room, acidified[b] | 13.09 ± 0.13 | 13.04 ± 0.11 | 12.91 ± 0.12 |
| | refrigerator, acidified[b] | 13.25 ± 0.13 | 13.10 ± 0.13 | 12.45 ± 0.13 |
| | room, natural | 9.674 ± 0.094 | 10.13 ± 0.10 | 9.306 ± 0.088 |
| | refrigerator, natural | 11.20 ± 0.12 | 11.61 ± 0.12 | 11.21 ± 0.12 |
| 6 | room, acidified[b] | 13.03 ± 0.17 | 13.60 ± 0.17 | 13.01 ± 0.15 |
| | refrigerator, acidified[b] | 12.31 ± 0.18 | 12.55 ± 0.18 | 13.00 ± 0.17 |
| | room, natural | 9.17 ± 0.14 | 10.35 ± 0.12 | 10.01 ± 0.14 |
| | refrigerator, natural | 10.67 ± 0.12 | 11.66 ± 0.17 | 10.62 ± 0.13 |
| 7 | room, acidified[b] | 13.20 ± 0.15 | 13.33 ± 0.18 | 13.45 ± 0.17 |
| | refrigerator, acidified[b] | 12.86 ± 0.19 | 12.96 ± 0.20 | 12.53 ± 0.20 |
| | room, natural | 10.18 ± 0.17 | 10.34 ± 0.15 | 8.70 ± 0.14 |
| | refrigerator, natural | 10.65 ± 0.18 | 11.51 ± 0.16 | 10.47 ± 0.15 |
| 10 | room, acidified[b] | 13.37 ± 0.23 | 12.50 ± 0.28 | 12.81 ± 0.21 |
| | refrigerator, acidified[b] | 12.81 ± 0.28 | 12.95 ± 0.26 | 11.61 ± 0.28 |
| | room, natural | 7.23 ± 0.17 | 7.71 ± 0.17 | 7.98 ± 0.18 |
| | refrigerator, natural | 9.62 ± 0.22 | 9.46 ± 0.23 | 8.93 ± 0.20 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] 1 % HCl

**Table 17 Mercury stability in different materials: polyethylene. Labelled Hg concentration in marine water.**

| storage time (d) | condition | Hg concentration (ng $L^{-1}$) | | |
|---|---|---|---|---|
| | | replicate 1[a] | replicate 2[a] | replicate 3[a] |
| 0 (ref.) | room, acidified[b] | 12.55 ± 0.11 | 12.74 ± 0.11 | 12.47 ± 0.12 |
| | refrigerator, acidified[b] | 12.919 ± 0.092 | 12.29 ± 0.11 | 12.39 ± 0.11 |
| | room, natural | 12.22 ± 0.11 | 12.16 ± 0.11 | 12.25 ± 0.11 |
| | refrigerator, natural | 12.253 ± 0.089 | 12.146 ± 0.083 | 12.158 ± 0.090 |
| 1 | room, acidified[b] | 12.47 ± 0.11 | 13.11 ± 0.11 | 12.63 ± 0.10 |
| | refrigerator, acidified[b] | 12.50 ± 0.10 | 12.43 ± 0.10 | 12.39 ± 0.11 |
| | room, natural | 8.378 ± 0.076 | 7.992 ± 0.071 | 7.675 ± 0.076 |
| | refrigerator, natural | 7.763 ± 0.068 | 7.847 ± 0.058 | 7.654 ± 0.065 |
| 3 | room, acidified[b] | 13.39 ± 0.13 | 13.52 ± 0.13 | 13.20 ± 0.12 |
| | refrigerator, acidified[b] | 12.05 ± 0.11 | 12.68 ± 0.12 | 12.63 ± 0.12 |
| | room, natural | 5.259 ± 0.070 | 5.198 ± 0.066 | 4.977 ± 0.059 |
| | refrigerator, natural | 6.649 ± 0.070 | 6.602 ± 0.077 | 6.358 ± 0.075 |
| 6 | room, acidified[b] | 14.11 ± 0.18 | 13.24 ± 0.18 | 13.16 ± 0.17 |
| | refrigerator, acidified[b] | 11.88 ± 0.17 | 13.03 ± 0.14 | 12.53 ± 0.14 |
| | room, natural | 3.066 ± 0.074 | 3.067 ± 0.065 | 2.920 ± 0.061 |
| | refrigerator, natural | 6.21 ± 0.11 | 5.89 ± 0.10 | 6.23 ± 0.11 |
| 7 | room, acidified[b] | 13.14 ± 0.20 | 13.22 ± 0.20 | 12.88 ± 0.19 |
| | refrigerator, acidified[b] | 12.53 ± 0.15 | 12.60 ± 0.16 | 12.57 ± 0.16 |
| | room, natural | 3.344 ± 0.085 | 2.630 ± 0.062 | 2.745 ± 0.069 |
| | refrigerator, natural | 5.95 ± 0.11 | 5.75 ± 0.10 | 6.16 ± 0.12 |
| 10 | room, acidified[b] | 12.80 ± 0.24 | 13.30 ± 0.28 | 12.92 ± 0.27 |
| | refrigerator, acidified[b] | 11.36 ± 0.20 | 13.00 ± 0.27 | 12.34 ± 0.22 |
| | room, natural | 2.04 ± 0.11 | 2.089 ± 0.089 | 2.15 ± 0.11 |
| | refrigerator, natural | 5.14 ± 0.15 | 5.32 ± 0.17 | 5.40 ± 0.16 |

[a] the uncertainties reported consider only the evaluation of gamma ray spectra

[b] 1 % HCl