**Table S3. Hg isotopic composition in reference material samples**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample name** | **204/198δ** | | | **202/198δ** | | | **201/198δ** | | | **200/198δ** | | | **199/198δ** | | | **∆201** | | | **∆200** | | | **∆199** | | | N | **References** |
| ‰ | | | ‰ | | | ‰ | | | ‰ | | | ‰ | | | ‰ | | | ‰ | | | ‰ | | |
| **UM-Almadén** | **-0.84** | **±** | **0.23** | **-0.54** | **±** | **0.12** | **-0.44** | **±** | **0.12** | **-0.24** | **±** | **0.12** | **-0.12** | **±** | **0.13** | **-0.03** | **±** | **0.08** | **0.04** | **±** | **0.08** | **0.01** | **±** | **0.12** | **34** | **This study** |
| UM Almaden | ND | | | -0.57 | ± | 0.05 | -0.46 | ± | 0.05 | -0.28 | ± | 0.03 | -0.16 | ± | 0.04 | -0.03 | ± | 0.02 | 0.01 | ± | 0.02 | -0.02 | ± | 0.03 | 61 | 2 |
| UM Almaden | -0.86 | ± | 0.21 | -0.57 | ± | 0.15 | -0.46 | ± | 0.14 | -0.28 | ± | 0.16 | -0.16 | ± | 0.13 | -0.03 | ± | 0.06 | 0.01 | ± | 0.1 | -0.02 | ± | 0.11 | 25 | 1 and 3 |
| NIST 1944 | -0.68 | ± | 0.17 | -0.44 | ± | 0.14 | -0.32 | ± | 0.18 | -0.23 | ± | 0.13 | -0.11 | ± | 0.12 | 0.01 | ± | 0.12 | -0.01 | ± | 0.1 | 0 | ± | 0.11 | 15 | 1 |
| NIST 1944 | ND | | | -0.44 | ± | 0.12 | -0.34 | ± | 0.08 | -0.22 | ± | 0.05 | -0.1 | ± | 0.04 | -0.01 | ± | 0.05 | ND | ± | 0.03 | 0.01 | ± | 0.04 | 9 | 2 |
| NIST 1944 | ND | | | -0.48 | ± | 0.29 | ND | | | ND | | | ND | | | ND | | | ND | | | 0.02 | ± | 0.05 | 3 | 4 |
| NIST 1944 | ND | | | -0.45 | ± | 0.06 | ND | | | ND | | | ND | | | ND | | | ND | | | -0.03 | ± | 0.02 | 5 | 5 |
| **IAEA 405** | **-0.59** | **±** | **0.08** | **-0.44** | **±** | **0.03** | **-0.38** | **±** | **0.02** | **-0.22** | **±** | **0.09** | **-0.15** | **±** | **0.13** | **-0.05** | **±** | **0.04** | **0** | **±** | **0.09** | **-0.04** | **±** | **0.13** | **3** | **This study** |
| IAEA 405 | -0.56 | ± | 0.27 | -0.38 | ± | 0.19 | -0.31 | ± | 0.15 | -0.2 | ± | 0.13 | -0.13 | ± | 0.13 | -0.03 | ± | 0.08 | 0.01 | ± | 0.07 | -0.03 | ± | 0.1 | 48 | 1 |
| IAEA 405 | -0.62 | ± | 0.21 | -0.41 | ± | 0.16 | -0.31 | ± | 0.19 | -0.19 | ± | 0.12 | -0.12 | ± | 0.11 | -0.01 | ± | 0.09 | 0.01 | ± | 0.06 | -0.02 | ± | 0.08 | 14 | 3 |
| **BCR 464** | **0.96** | **±** | **0.2** | **0.69** | **±** | **0.16** | **2.47** | **±** | **0.15** | **0.42** | **±** | **0.16** | **2.52** | **±** | **0.17** | **1.95** | **±** | **0.09** | **0.07** | **±** | **0.08** | **2.35** | **±** | **0.15** | **6** | **This study** |
| BCR 464 | ND | | | 0.59 | ± | 0.2 | 2.23 | ± | 0.18 | 0.37 | ± | 0.14 | 2.33 | ± | 0.11 | 1.79 | ± | 0.08 | 0.07 | ± | 0.08 | 2.18 | ± | 0.08 | 7 | 6 |
|
| BCR 464 | 0.72 | ± | 0.05 | 0.55 | ± | 0.03 | 1.96 | ± | 0.11 | 0.33 | ± | 0.02 | 2.02 | ± | 0.13 | 1.54 | ± | 0.1 | 0.05 | ± | 0.1 | 1.88 | ± | 0.13 | 8 | 7 |

Results expressed as mean value ± 2SD. SD means standard deviation. ND: no data.

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