**S2 Table.** Accepted values of the standard material used in the stable isotopic analysis performed in this study, mean measured (±standard deviation) in the samples of standards materials used, minimum and maximum values for all runs, and number of samples (n).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Standard material |  | δ15NAIR(‰ ) | | | | |  | δ13CVPDB(‰ ) | | | | |  |  |
|  | Accepted values |  | Measured values | | |  | Accepted values |  | Measured values | | |  | References of the accepted values |
|  | Mean ± SD |  | Mean of all runs ± SD | Minimum-maximum | n |  | Mean ± SD |  | Mean of all runs ± SD | Minimum-maximum | n |  |
| IAEA N1 |  | 0.4 ± 0.1 |  | 0.5 ± 0.3 | -0.2 to 1.1 | 42 |  |  |  |  |  |  |  | [1] |
| IAEA N2 |  | 20.4 ± 0.1 |  | 20.3 ± 0.2 | 19.7 to 20.6 | 42 |  |  |  |  |  |  |  | [2] |
| IAEA NO3 |  | 4.7 ± 0.1 |  | 4.6 ± 0.2 | 4.0 to 4.9 | 20 |  |  |  |  |  |  |  | [1] |
| USG 34 |  | -1.8 ± 0.2 |  | -1.8 ± 0.3 | -2.6 to -1.3 | 25 |  |  |  |  |  |  |  | [3] |
| USGS 40 |  | -4.5 ± 0.1 |  | -4.6 ± 0.1 | -4.9 to -4.3 | 48 |  | -26.2 ± 0.1 |  | -26.4 ± 0.1 | -26.6 to -26.2 | 47 |  | [4] |
| IAEA 600 |  | 1.0 ± 0.2 |  | 1.0 ± 0.2 | 0.6 to 1.4 | 34 |  | -27.8 ± 0.0 |  | -27.7 ± 0.2 | -27.9 to -26.8 | 34 |  | [5] |
| IAEA CH6 |  |  |  |  |  |  |  | -10.5 ± 0.0 |  | -10.4 ± 0.1 | -10.7 to -10.3 | 46 |  | [5] |
| IAEA CH7 |  |  |  |  |  |  |  | -32.2 ± 0.1 |  | -32.1 ± 0.1 | -32.3 to -32.0 | 43 |  | [5] |

**References**

1. Böhlke JK, Coplen TB. Interlaboratory comparison of reference materials for nitrogen-isotope-ratio measurements. Reference and intercomparison materials for stable isotopes of light elements. Viena: Proceedings of a consultants meeting - IAEA; 1993. pp. 51–66.

2. Braak CJFT, Smilauer P. CANOCO Reference Manual and user’s guide to Canoco for Windows: Software for Canonical Community Ordination (version 4). Ithaca, NY: Microcomputer Power; 1998. p.

3. Böhlke JK, Mroczkowski SJ, Coplen TB. Oxygen isotopes in nitrate: new reference materials for 18O:17O:16O measurements and observations on nitrate-water equilibration. Rapid Commun mass Spectrom RCM, 2003. 2003;17: 1835–46. doi:10.1002/rcm.1123

4. Qi H, Coplen TB, Gelimann H, Brand WA, Böhlke JK. Two new organic reference materials for δ13C and δ15N measurements and new value for the δ13C of NBS 22 oil. Rapid Commun Mass Spectrom. 2003;17: 2483–2487. Available: http://nucleus.iaea.org/rpst/ReferenceProducts/ReferenceMaterials/Stable\_Isotopes/15N14N/USGS34.htm

5. Coplen TB, Brand WA, Gehre M, Gro M, Meijer HAJ, Toman B, et al. New guidelines for δ13C measurements. Anal Chem. 2006;78: 2439–2441.