**Supplementary Material A**

**BB data**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **BB - spot** | **176Yb/177Hf a** | **±2s** | **176Lu/177Hf a** | **±2s** | **178Hf/177Hf** | **±2s** | **SigHf b (V)** | **176Hf/177Hf** | **±2s c** | **176Hf/177Hf(t)d** | **eHf(t) d** | **±2s c** | **age** |
| 1 | 0,006332287 | 5 | 0,000133582 | 1 | 1,466334149 |  | 11 | 0,28167837 | 21 | 0,281676966 | -27 | 1 | 560 ± 1 |
| 2 | 0,006353728 | 6 | 0,000133843 | 1 | 1,466413249 |  | 11 | 0,281668357 | 22 | 0,281666951 | -27 | 1 | 560 ± 1 |
| 3 | 0,00630582 | 5 | 0,000133473 | 1 | 1,466320155 |  | 11 | 0,281665478 | 26 | 0,281664075 | -27 | 1 | 560 ± 1 |
| 5 | 0,006298307 | 5 | 0,0001334 | 1 | 1,466363444 |  | 11 | 0,281671478 | 27 | 0,281670076 | -27 | 1 | 560 ± 1 |
| 45 | 0,006209584 | 5 | 0,000130684 | 1 | 1,466078192 |  | 11 | 0,281663478 | 30 | 0,281662104 | -27 | 1 | 560 ± 1 |
| 46 | 0,005954669 | 6 | 0,000126351 | 1 | 1,465985861 |  | 11 | 0,281657433 | 26 | 0,281656105 | -27 | 1 | 560 ± 1 |
| 47 | 0,006039576 | 5 | 0,000127428 | 1 | 1,46610396 |  | 11 | 0,281658798 | 28 | 0,281657458 | -27 | 1 | 560 ± 1 |
| 72 | 0,005964098 | 5 | 0,000127106 | 1 | 1,46602697 |  | 11 | 0,281672829 | 23 | 0,281671493 | -27 | 1 | 560 ± 1 |
| 73 | 0,005951732 | 6 | 0,000126382 | 1 | 1,466026875 |  | 11 | 0,281677516 | 25 | 0,281676188 | -27 | 1 | 560 ± 1 |
| 74 | 0,006207716 | 5 | 0,000132221 | 1 | 1,466031238 |  | 11 | 0,28165897 | 25 | 0,28165758 | -27 | 1 | 560 ± 1 |
| 117 | 0,006283215 | 5 | 0,000132135 | 1 | 1,466432428 |  | 11 | 0,281691623 | 17 | 0,281690234 | -26 | 1 | 560 ± 1 |
| 118 | 0,006262387 | 5 | 0,00013225 | 1 | 1,466467493 |  | 11 | 0,281660846 | 16 | 0,281659456 | -27 | 1 | 560 ± 1 |
| 119 | 0,006222159 | 5 | 0,000131772 | 1 | 1,466476436 |  | 11 | 0,28167829 | 15 | 0,281676905 | -27 | 1 | 560 ± 1 |
| 166 | 0,006144028 | 5 | 0,000131211 | 1 | 1,466651791 |  | 11 | 0,281667504 | 16 | 0,281666125 | -27 | 1 | 560 ± 1 |
| 167 | 0,006109583 | 5 | 0,000130898 | 1 | 1,466596679 |  | 11 | 0,281695183 | 15 | 0,281693808 | -26 | 1 | 560 ± 1 |
| 168 | 0,006138198 | 6 | 0,000130949 | 1 | 1,466718435 |  | 11 | 0,281651508 | 16 | 0,281650131 | -28 | 1 | 560 ± 1 |
| 215 | 0,005899939 | 5 | 0,000125511 | 1 | 1,466872767 |  | 11 | 0,281668571 | 16 | 0,281667252 | -27 | 1 | 560 ± 1 |
| 216 | 0,006177573 | 5 | 0,000130857 | 1 | 1,466909497 |  | 11 | 0,281679251 | 130 | 0,281677876 | -27 | 1 | 560 ± 1 |
| 4 | 0,006279875 | 5 | 0,000133297 | 1 | 1,466237376 |  | 11 | 0,281647329 | 27 | 0,281645928 | -28 | 1 | 560 ± 1 |
| 118 | 0,006262387 | 5 | 0,00013225 | 1 | 1,466467493 |  | 11 | 0,281652859 | 16 | 0,281651469 | -28 | 1 | 560 ± 1 |
| 217 | 0,006148148 | #DIV/0! | 0,000130616 | #DIV/0! | 1,466811847 |  | 11 | 0,281646723 | #DIV/0! | 0,28164535 | -28 | #DIV/0! | 560 ± 1 |