

|       |       | Nanogranitoids in OSD granulites |       |       |       |       |       |       |       |       |       |       |       |      |      |       |       |       |       |      |      |       |      |      |       |       |      |      |     |
|-------|-------|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|------|------|-------|------|------|-------|-------|------|------|-----|
| (ppm) |       | 1                                | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13   | 14   | 15    | 16    | 17    | 18    | 19   | 20   | 21    | 22   | 23   | 24    | 25    | 26   | 27   | Av. |
| Li    | 57    | -                                | 42    | 91    | 20    | -     | 43    | 146   | 149   | 51    | 196   | -     | 37    | 245  | 85   | -     | -     | 176   | -     | -    | 32   | -     | 115  | 196  | -     | 105   |      |      |     |
| B     | <57   | <56                              | <27   | <26   | <10   | <20   | <35   | <216  | <21   | <18   | <10   | <129  | <91   | <40  | <247 | <13   | <429  | <197  | <24   | <65  | <126 | <16   | <67  | <38  | <27   | <198  | <122 | -    |     |
| P     | <189  | <192                             | <127  | <125  | <49   | <103  | <117  | <702  | 90    | <63   | 57    | <437  | <313  | <153 | 1077 | <58.9 | <1731 | <804  | <98   | <279 | <523 | 184   | <286 | <114 | <79   | <544  | <337 | 352  |     |
| Sc    | <3    | 40                               | 29    | 7     | 17    | <1.7  | 10    | <14   | 22    | <1.2  | 5     | 14    | <5.7  | 57   | <17  | <0.9  | <29   | <12   | <1.6  | <4.2 | <8   | <1    | <4   | 30   | <1.4  | <10.9 | 12   | 22   |     |
| Ti    | 827   | <28                              | 762   | 2271  | 521   | 502   | <15   | 465   | 791   | 869   | 98    | <56   | <44   | 523  | <142 | 40    | <211  | <106  | 93    | 317  | 192  | 230   | 196  | 1153 | 2689  | <75   | 213  | 671  |     |
| V     | 4     | 51                               | 20    | 49    | 9     | 11    | 15    | 10    | -     | -     | 4     | 29    | -     | 52   | 10   | 14    | 22    | -     | 23    | 11   | 16   | 2     | -    | -    | 53    | -     | -    | 21   |     |
| Co    | 8     | <1.1                             | <0.8  | 26    | <0.3  | 9     | 2     | <5    | 14    | 17    | 2     | 11    | <2    | <1   | <7   | 12    | <13   | <6    | 14    | <2   | 9    | 3     | <1   | <1   | 31    | <3.6  | 10   | 12   |     |
| Zn    | 154   | -                                | 69    | 1246  | 145   | 215   | 82    | 767   | 406   | 1007  | 225   | -     | 362   | 448  | 874  | 80    | 816   | 390   | 222   | 431  | 772  | 67    | 33   | 695  | 597   | -     | 805  | 455  |     |
| Rb    | 524   | 502                              | 554   | 555   | 102   | 603   | 508   | 528   | 444   | 489   | 740   | 724   | 516   | 406  | 529  | 268   | 535   | 356   | 417   | 465  | 783  | 511   | 318  | 957  | 469   | 520   | 378  | 507  |     |
| Sr    | 30    | 32                               | 32    | 28    | 219   | 28    | 28    | 30    | 90    | 17    | 45    | 23    | 37    | 13   | 28   | 39    | 39    | 22    | 42    | 19   | 40   | 24    | 13   | 15   | 81    | 27    | 11   | 39   |     |
| Zr    | 165   | 50                               | 143   | 168   | <0.2  | 66    | 147   | 206   | 150   | 116   | 205   | 64    | 41    | 295  | 66   | 23    | 150   | 276   | 88    | 127  | 108  | 38    | 130  | 163  | 14    | 91    | 155  | 125  |     |
| Nb    | 1.0   | 0.9                              | 0.9   | 0.8   | 0.2   | 1.1   | 0.6   | <1.5  | 1.5   | 0.9   | 0.4   | <1    | <0.7  | 0.7  | <2.5 | 0.2   | <3.7  | <1.4  | 0.3   | 0.8  | <1.2 | 0.2   | <0.4 | 2.3  | 2.6   | <1.4  | <0.7 | 0.9  |     |
| Cs    | 6.4   | 4.8                              | 6.5   | 7.3   | <0.2  | 6.1   | 5.7   | 7.0   | 2.1   | 4.1   | 7.5   | 5.5   | 7.1   | 6.0  | 6.6  | 0.9   | 17.3  | 6.9   | 0.9   | 5.9  | 7.8  | 10.9  | 11.4 | 6.6  | 6.3   | 9.2   | -    | 6.7  |     |
| Ba    | 791   | 608                              | 543   | 678   | 1958  | 714   | 733   | 712   | 1265  | 784   | 950   | 624   | 597   | 445  | 251  | 2064  | 427   | 586   | 1155  | 441  | 643  | 980   | 592  | 614  | 383   | 795   | 450  | 770  |     |
| La    | 23.2  | 17.7                             | 16.7  | 23.8  | 2.5   | 6.5   | 2.1   | 5.6   | 27.4  | 4.0   | 2.8   | 13.9  | 8.0   | 9.4  | 2.3  | 6.6   | 1.6   | 3.5   | 11.6  | 45.3 | 47.4 | 13.5  | 3.9  | 3.4  | 21.1  | 6.6   | 10.6 | 12.6 |     |
| Ce    | 40.0  | 17.1                             | 29.6  | 54.0  | 5.8   | 7.6   | 2.7   | 10.3  | 37.5  | 7.2   | 5.7   | 5.5   | 10.0  | 16.6 | 2.8  | 1.9   | 5.9   | 4.0   | 3.0   | 62.7 | 62.4 | 29.3  | 8.9  | 7.1  | <0.1  | 10.7  | 26.2 | 18.3 |     |
| Pr    | 4.1   | 0.6                              | 3.2   | 7.0   | 0.4   | 0.8   | <0.1  | 0.9   | 6.3   | 0.7   | 0.6   | 3.4   | <0.38 | 2.1  | 1.1  | 1.1   | <1.4  | <0.7  | 2.2   | 5.5  | 5.8  | 4.8   | 0.3  | 1.1  | 2.0   | 1.1   | 3.9  | 2.6  |     |
| Nd    | 2.6   | <0.2                             | 14.9  | 24.0  | 3.7   | <0.3  | <0.4  | 4.9   | 24.4  | 2.0   | 1.6   | 19.6  | <1.7  | 11.3 | <4.2 | 3.1   | <6.8  | <2.9  | 3.7   | 9.2  | 9.7  | 24.2  | 3.7  | 13.9 | <0.4  | <2.3  | 26.0 | 11.3 |     |
| Sm    | 1.7   | <0.4                             | 11.5  | <0.4  | 3.4   | <0.4  | <0.5  | 5.3   | 10.5  | <0.16 | 1.1   | 14.4  | <1.9  | 8.3  | <4.7 | <0.2  | <8.3  | <3.8  | <0.4  | <1.5 | <3   | 3.2   | 2.0  | 12.8 | <0.4  | <1.4  | 9.2  | 7.0  |     |
| Eu    | <0.2  | <0.2                             | 0.7   | <0.2  | 1.2   | <0.2  | <0.2  | 1.7   | 1.8   | <0.1  | <0.06 | <0.82 | <0.6  | 1.3  | <2   | <0.07 | <3.7  | <1.6  | <0.6  | <1.2 | 0.2  | <0.4  | 2.7  | <0.2 | <1.2  | 1.7   | 1.4  |      |     |
| Gd    | <0.6  | 3.6                              | 16.9  | <0.5  | 0.5   | <0.5  | <0.7  | <5    | 14.4  | <0.4  | <0.2  | 18.1  | <2    | 13.3 | <5.8 | <0.3  | <13   | <6.1  | <0.7  | <2.2 | <3.6 | <0.4  | 6.2  | 16.3 | <0.7  | <4.7  | 8.9  | 10.9 |     |
| Hf    | 5.3   | 2.4                              | 5.3   | 6.6   | <0.1  | 3.3   | 4.6   | 9.6   | 5.2   | 4.4   | 7.1   | 2.9   | 3.4   | 8.3  | <2.7 | 1.9   | 6.2   | 7.0   | 3.1   | 4.8  | 3.9  | 1.0   | 3.4  | 5.4  | 1.9   | 2.5   | 5.9  | 4.6  |     |
| Ta    | <0.10 | <0.09                            | <0.05 | <0.05 | <0.03 | <0.06 | <0.02 | <0.74 | <0.05 | <0.03 | 0.0   | <0.37 | <0.27 | <0.1 | <0.7 | <0.03 | <1.2  | <0.54 | <0.08 | <0.2 | <0.3 | <0.02 | <0.2 | <0.1 | 0.1   | <0.16 | <0.3 | 0.1  |     |
| Pb    | 0.5   | 0.3                              | 0.9   | 0.3   | 0.3   | 0.5   | 0.3   | <0.6  | 0.4   | 0.4   | 0.2   | <0.5  | 0.4   | 0.8  | <0.8 | 0.2   | <2.5  | <2    | 0.2   | 1.5  | <0.9 | <0.1  | 0.6  | 0.4  | <0.1  | <1.1  | 0.6  | 0.5  |     |
| Th    | 0.2   | 0.2                              | 0.1   | <0.06 | <0.01 | <0.05 | <0.04 | <0.4  | 0.1   | 0.0   | 0.1   | <0.1  | <0.2  | 0.1  | <0.6 | 0.03  | <0.9  | <0.6  | 0.1   | 0.4  | 0.6  | 0.3   | 0.2  | 0.1  | <0.03 | <0.2  | <0.2 | 0.2  |     |
| U     | 0.5   | 0.5                              | 1.1   | 0.3   | 0.1   | 0.1   | 0.7   | 0.4   | 1.0   | 0.4   | 1.0   | 0.4   | 0.4   | 1.2  | 0.5  | 0.2   | 0.5   | 1.4   | 0.2   | 0.9  | 0.3  | 0.9   | 0.5  | 0.7  | 0.2   | 0.2   | 0.5  | 0.6  |     |
| Tb    | -     | -                                | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -    | -    | -     | -     | -     | -     | -    | -    | -     | -    | -    | -     | -     | -    | -    |     |
| Dy    | -     | -                                | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -    | -    | -     | -     | -     | -     | -    | -    | -     | -    | -    | -     | -     | -    | -    |     |
| Ho    | -     | -                                | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -    | -    | -     | -     | -     | -     | -    | -    | -     | -    | -    | -     | -     | -    | -    |     |
| Er    | -     | -                                | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -    | -    | -     | -     | -     | -     | -    | -    | -     | -    | -    | -     | -     | -    | -    |     |
| Tm    | -     | -                                | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -    | -    | -     | -     | -     | -     | -    | -    | -     | -    | -    | -     | -     | -    | -    |     |
| Yb    | -     | -                                | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -    | -    | -     | -     | -     | -     | -    | -    | -     | -    | -    | -     | -     | -    | -    |     |
| Lu    | -     | -                                | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -    | -    | -     | -     | -     | -     | -    | -    | -     | -    | -    | -     | -     | -    | -    |     |

Supplementary Table TE