**Supplementary material**

**Moiseev, A., Luchitskaya, M., Sokolov, S., Belyatsky, B.: Geodynamic setting of Ediacaran and Permian–Triassic plagiogranites of the Ust-Bel’sky and Algansky terranes, West Koryak fold belt, NE Russia: insights from U–Pb geochronology and geochemistry. *GFF*.**

**Analytical methods**

Zircons for U–Pb SIMS and LA–ICP–MS geochronology were extracted at the Geological Institute of the Russian Academy of Sciences using standard density and magnetic separation techniques. U–Pb zircon dating was performed on the high-resolution multi-collector secondary ion mass spectrometer SHRIMP-II in the Center of Isotopic Research in the A.P. Karpinsky Russian Geological Research Institute (St. Petersburg), following the procedure described in Williams (1998). LA–ICP–MS dating was performed at the Analytical Center for Mineralogical, Geochemical, and Isotopic Studies of the Geological Institute of the Siberian Branch of the Russian Academy of Sciences (Ulan-Ude) using an inductively coupled plasma mass spectrometer (Element XR from Thermo Scientific, Germany) coupled to an UP-213 laser ablation system. The measurements were carried out according to the method described in Khubanov et al. (2016). Concordia diagrams were produced using the ISOPLOT/EX program (Ludwig 2003).

Major and trace element analyses were performed in the analytical laboratory of the Geological Institute of the Russian Academy of Sciences. Major elements were determined by X-ray fluorescence (XRF) using a Pioneer spectrometer from Bruker (Germany) and the software “Spectra-Plus”. Trace elements were determined using ICP-MS after autoclave decomposition of the rock powders with a mixture of 1.5 ml of hydrofluoric acid and 0.3 ml of nitric acid at 210°C for 18–20 hours. Measurements were performed using an Element-2 mass spectrometer from Thermo Scientific, Germany.

Isotopic compositions of Rb, Sr, Sm and Nd were conducted in the Center of Isotopic Research in the A.P. Karpinsky Russian Geological Research Institute on a TRITON thermal ionization mass spectrometer in a two-band variant of the arrangement of ribbons in the static multicollect mode. Before each batch of samples, an international standard of 50 ng NIST 987 or 100 ng JNdi-1 was measured. The average analysis accuracy was 0.002% (2σ) for the isotope 87Sr/86Sr ratio, and 0.005% (2σ) for the 143Nd/144Nd ratio. The concentrations were calculated using the isotopic dilution method. The error in measuring the concentrations was 1%. Excel2003 was used for calculation of 87Rb, 86Sr, and 147Sm/144Nd ratios.

**Cited references**

Khubanova, V.B., Buyantuev, M.D. & Tsygankov A.A., 2016: U–Pb dating of zircons from PZ3–MZ igneous complexes of Transbaikalia by sector-field mass spectrometry with laser sampling: technique and comparison with SHRIMP. *Russian Geology and Geophysics* 57, 190–205.

Ludwig, K.R., 2003: ISOPLOT 3.0: a geochronological toolkit for Microsoft Excel. Berkeley Geochronology Center Special Publications.

Williams, I.S., 1998: U–Th–Pb geochronology by ion microprobe. In: M.A.McKibben, W.C. Shanks III & W.I. Ridley (eds.): *Applications of microanalytical techniques to understanding mineralising processes*. Reviews in Economic Geology 7, 1–35.

Suppl. Table 1. Coordinates of sampling points.

|  |  |  |  |
| --- | --- | --- | --- |
| **Samples**  **No** | **Coordinates** | | **on the map** |
|
| 250.03/13 | N 65°12.103' | E 172°56.878' | Fig. 1 |
| 250.04/13 | N 65°12.103' | E 172°56.878' | Fig. 1 |
| 07-134 | N 65°7.414' | E 172°52.214' | Figs. 2,3 |
| 07-142 | N 65°9.826' | E 173°10.967'' | Fig. 4 |
| А-12-01 | N 65°4.337' | E 173°3.512' | Fig. 3 |
| А-1195/01 | N 65°5.96' | E 172°59.813' | Fig. 3 |
| 223.02 | N 64°58.288' | E 173°0.982' | Fig. 3 |
| 234.02 | N 64°59.816' | E 172°54.106' | Fig. 3 |
| 254.02. | N 65°0.367' | E 172°56.451' | Fig. 3 |
| 260.01 | N65°02.364' | E 172°56.714' | Fig. 3 |
| 2149.01 | N 64°58.411' | E 172°51.972' | Fig. 3 |
| 257.01 | N 65°2.004' | E 172°58.734' | Fig. 3 |
| 11-32-5 | N 64°48.004' | E 173°05.162' | Fig. 1 |
| А-1202.01 | N 65°5.264' | E 173°6.473' | Fig. 3 |
| 284.06 | N 65°9.595' | E 173°9.398' | Fig. 3 |
| 286.02 | N 65°9.214' | E 173°8.292' | Fig. 3 |
| 07-121 | N 65°8.931' | E 172°44.537' | Fig. 1 |
| 07-168 | N 65°10.322' | E 173°38.011' | Fig. 1 |
| К-4-29 | N 65°5.673' | E 172°53.087' | Fig. 2 |

Suppl. Table 2. U-Th-Pb SIMS data.

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| **Sample**  **spot**  **ID** | **206Pb** | | **Concentrations, ppm** | | **Th /U** | **Ages, Ma** | | | | **Isotopic ratios** | | | | | | | | **Error**  **corr.** |
| common % | Radiogenic, ppm | U | Th | 206Pb/ 238U | ±% | 207Pb/ 206Pb | ±% | 238U /206Pb | ±% | 207Pb /206Pb | ±% | 207Pb /235U | ±% | 206Pb /238U | ±% |
| **Ediacaran** | | | | | | | | | | | | | | | | | | |
| **А-1202.01 - plagiogranite 548±3 Ma, WSWD=0.022** | | | | | | | | | | | | | | | | | | |
| 1202.01\_4.1 | 1.64 | 2.32 | 466 | 167 | 0.37 | 36.6 | 0.64 | -264 | 560 | 175.6 | 1.8 | 0.0414 | 22.0 | 0.0326 | 22.0 | 0.0057 | 1.8 | 0.079 |
| 1202.01\_1.1 | 0.76 | 3.58 | 716 | 265 | 0.38 | 37.2 | 0.53 | -147 | 370 | 173 | 1.4 | 0.0434 | 15 | 0.0346 | 15 | 0.00578 | 1.4 | 0.096 |
| 1202.01\_9.1 | 0.28 | 11.30 | 151 | 147 | 1.00 | 538 | 5.5 | 558 | 75 | 11.49 | 1.1 | 0.0587 | 3.5 | 0.705 | 3.6 | 0.087 | 1.1 | 0.295 |
| 1202.01\_10.1 | 0.00 | 24.00 | 320 | 359 | 1.16 | 540 | 4.4 | 556 | 35 | 11.455 | 0.85 | 0.05871 | 1.6 | 0.707 | 1.8 | 0.0873 | 0.85 | 0.471 |
| 1202.01\_2.1 | 0.06 | 16.50 | 217 | 173 | 0.82 | 546 | 4.8 | 503 | 47 | 11.32 | 0.92 | 0.0573 | 2.1 | 0.698 | 2.3 | 0.08832 | 0.92 | 0.398 |
| 1202.01\_7.1 | 0.12 | 26.00 | 341 | 468 | 1.42 | 547 | 4.9 | 556 | 38 | 11.28 | 0.93 | 0.0587 | 1.7 | 0.717 | 2.0 | 0.08861 | 0.93 | 0.475 |
| 1202.01\_8.1 | 0.26 | 22.00 | 288 | 249 | 0.89 | 548 | 5.2 | 544 | 77 | 11.26 | 0.99 | 0.0584 | 3.5 | 0.714 | 3.7 | 0.08878 | 0.99 | 0.270 |
| 1202.01\_5.1 | 0.43 | 28.80 | 375 | 310 | 0.85 | 549 | 4.3 | 513 | 64 | 11.244 | 0.81 | 0.0576 | 2.9 | 0.706 | 3.0 | 0.08892 | 0.81 | 0.270 |
| 1202.01\_3.1 | 0.23 | 19.50 | 252 | 276 | 1.13 | 553 | 4.6 | 595 | 55 | 11.158 | 0.87 | 0.0598 | 2.5 | 0.738 | 2.7 | 0.08961 | 0.87 | 0.326 |
| 1202.01\_6.1 | 0.00 | 18.20 | 234 | 278 | 1.23 | 558 | 4.7 | 563 | 40 | 11.069 | 0.87 | 0.0589 | 1.8 | 0.734 | 2.0 | 0.09034 | 0.87 | 0.431 |
| **2149.01 - tonalite 553±7 Ma, WSWD=0.32** | | | | | | | | | | | | | | | | | | |
| 2149.01\_1.1 | 1.53 | 3.25 | 41 | 25 | 0.62 | 560 | 13 | - | - | 11.02 | 2.4 | 0.0447 | 19 | 0.560 | 19 | 0.0907 | 2.4 | 0.134 |
| 2149.01\_2.1 | 0.70 | 5.05 | 63 | 30 | 0.48 | 569 | 11 | - | - | 10.82 | 2 | 0.0546 | 7.4 | 0.695 | 7.7 | 0.0924 | 2.0 | 0.259 |
| 2149.01\_3.1 | 0.00 | 3.04 | 40 | 19 | 0.48 | 546 | 11 | - | - | 11.32 | 2.2 | 0.0591 | 4.8 | 0.720 | 5.3 | 0.0884 | 2.2 | 0.415 |
| 2149.01\_4.1 | 1.42 | 2.49 | 32 | 18 | 0.59 | 555 | 13 | - | - | 11.11 | 2.5 | 0.0469 | 16 | 0.581 | 16 | 0.0899 | 2.5 | 0.153 |
| 2149.01\_5.1 | 1.23 | 3.96 | 51 | 36 | 0.74 | 554 | 12 | - | - | 11.14 | 2.2 | 0.0499 | 14 | 0.618 | 14 | 0.0897 | 2.2 | 0.156 |
| 2149.01\_6.1 | 0.00 | 4.47 | 58 | 44 | 0.77 | 552 | 11 | - | - | 11.18 | 2 | 0.0586 | 4 | 0.723 | 4.4 | 0.0894 | 2.0 | 0.448 |
| 2149.01\_7.1 | 0.00 | 4.87 | 63 | 28 | 0.46 | 554 | 10 | - | - | 11.14 | 2 | 0.0606 | 3.9 | 0.750 | 4.4 | 0.0898 | 2.0 | 0.451 |
| 2149.01\_8.1 | 1.26 | 3.41 | 44 | 15 | 0.35 | 552 | 13 | - | - | 11.18 | 2.5 | 0.053 | 20 | 0.660 | 20 | 0.0894 | 2.5 | 0.124 |
| 2149.01\_9.1 | 0.72 | 3.43 | 45 | 25 | 0.58 | 543 | 12 | - | - | 11.37 | 2.3 | 0.0585 | 11 | 0.709 | 11 | 0.0879 | 2.3 | 0.199 |
| 2149.01\_10.1 | 1.46 | 3.77 | 49 | 29 | 0.61 | 545 | 12 | - | - | 11.34 | 2.3 | 0.0565 | 15 | 0.690 | 15 | 0.0881 | 2.3 | 0.158 |
| **223.02 – plagiogranite 555±3 Ma, WSWD=0.26** | | | | | | | | | | | | | | | | | | |
| 223.02\_1.1 | 0.15 | 31.20 | 401 | 597 | 1.54 | 559 | 4.6 | - | - | 11.034 | 0.86 | 0.059 | 2.8 | 0.738 | 2.9 | 0.09062 | 0.86 | 0.296 |
| 223.02\_2.1 | 0.09 | 38.60 | 503 | 701 | 1.44 | 551 | 4.4 | - | - | 11.197 | 0.83 | 0.05788 | 1.6 | 0.713 | 1.8 | 0.08931 | 0.83 | 0.467 |

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| **Sample**  **spot**  **ID** | **206Pb** | | **concentrations, ppm** | | **Th /U** | **Ages, Ma** | | | | **Isotopic ratios** | | | | | | | | **Error**  **corr.** |
| common % | radiogenic, ppm | U | Th | 206Pb/ 238U | ±% | 207Pb/ 206Pb | ±% | 238U /206Pb | ±% | 207Pb /206Pb | ±% | 207Pb /235U | ±% | 206Pb /238U | ±% |
| **Ediacaran** | | | | | | | | | | | | | | | | | | |
| 223.02\_3.1 | 0.03 | 29.10 | 376 | 479 | 1.32 | 555 | 4.6 | - | - | 11.117 | 0.87 | 0.06005 | 1.6 | 0.745 | 1.8 | 0.08995 | 0.87 | 0.477 |
| 223.02\_4.1 | 0.10 | 31.80 | 405 | 603 | 1.54 | 563 | 4.6 | - | - | 10.965 | 0.86 | 0.0599 | 1.7 | 0.754 | 1.9 | 0.09119 | 0.86 | 0.449 |
| 223.02\_5.1 | 0.06 | 44.40 | 579 | 832 | 1.49 | 551 | 4.2 | - | - | 11.212 | 0.8 | 0.05826 | 1.5 | 0.717 | 1.7 | 0.08919 | 0.80 | 0.475 |
| 223.02\_6.1 | 0.08 | 42.30 | 554 | 723 | 1.35 | 548 | 4.2 | - | - | 11.261 | 0.81 | 0.06021 | 1.4 | 0.737 | 1.6 | 0.08880 | 0.81 | 0.499 |
| 223.02\_7.1 | 0.09 | 36.30 | 466 | 691 | 1.53 | 559 | 4.4 | - | - | 11.043 | 0.83 | 0.05887 | 1.6 | 0.735 | 1.8 | 0.09055 | 0.83 | 0.467 |
| 223.02\_8.1 | 0.08 | 35.60 | 457 | 553 | 1.25 | 559 | 4.4 | - | - | 11.041 | 0.83 | 0.05744 | 1.6 | 0.717 | 1.8 | 0.09056 | 0.83 | 0.471 |
| 223.02\_9.1 | 0.07 | 44.60 | 585 | 964 | 1.70 | 548 | 4.2 | - | - | 11.278 | 0.8 | 0.05902 | 1.4 | 0.722 | 1.6 | 0.08866 | 0.80 | 0.496 |
| 223.02\_10.1 | 0.09 | 33.30 | 423 | 530 | 1.29 | 564 | 4.6 | - | - | 10.939 | 0.85 | 0.05789 | 1.6 | 0.73 | 1.8 | 0.09141 | 0.85 | 0.461 |
| **260.01 - plagiogranite 558±3 Ma, WSWD=0.98** | | | | | | | | | | | | | | | | | | |
| 260\_1.1 | 0.15 | 13.50 | 174 | 76 | 0.45 | 558 | 13 | 529 | 58 | 11.064 | 0.87 | 0.058 | 2.6 | 0.723 | 2.8 | 0.09038 | 0.87 | 0.314 |
| 260\_2.1 | 0.14 | 11.40 | 148 | 84 | 0.59 | 554 | 11 | 571 | 65 | 11.14 | 0.91 | 0.0591 | 3 | 0.732 | 3.1 | 0.08979 | 0.91 | 0.292 |
| 260\_3.1 | 0.69 | 8.35 | 107 | 63 | 0.61 | 558 | 11 | 528 | 110 | 11.06 | 1.1 | 0.058 | 5 | 0.722 | 5.2 | 0.09037 | 1.1 | 0.204 |
| 260\_4.1 | 0.11 | 11.7 | 151 | 91 | 0.62 | 555 | 13 | 503 | 59 | 11.12 | 1 | 0.0573 | 2.7 | 0.71 | 2.9 | 0.08988 | 1 | 0.365 |
| 260\_5.1 | 0.46 | 12.9 | 165 | 96 | 0.60 | 559 | 12 | 573 | 98 | 11.03 | 0.91 | 0.0591 | 4.5 | 0.739 | 4.6 | 0.09065 | 0.91 | 0.199 |
| 260\_6.1 | 0.51 | 14.9 | 192 | 95 | 0.51 | 555 | 11 | 468 | 89 | 11.119 | 0.87 | 0.0564 | 4 | 0.699 | 4.1 | 0.08992 | 0.87 | 0.211 |
| 260\_7.1 | 0.21 | 14.0 | 179 | 116 | 0.67 | 560 | 10 | 647 | 62 | 11.014 | 0.87 | 0.0612 | 2.9 | 0.766 | 3 | 0.09079 | 0.87 | 0.288 |
| 260\_8.1 | 0.28 | 14.8 | 189 | 104 | 0.57 | 562 | 13 | 576 | 64 | 10.986 | 0.85 | 0.0592 | 2.9 | 0.743 | 3 | 0.09102 | 0.85 | 0.280 |
| 260\_9.1 | 0.15 | 9.1 | 116 | 64 | 0.57 | 563 | 12 | 473 | 70 | 10.97 | 1 | 0.0565 | 3.2 | 0.711 | 3.3 | 0.09119 | 1 | 0.303 |
| 260\_10.1 | 0.52 | 18.60 | 238 | 163 | 0.71 | 559 | 12 | 457 | 86 | 11.042 | 0.82 | 0.0561 | 3.9 | 0.701 | 3.9 | 0.09054 | 0.82 | 0.208 |
| **286.02 - plagiogranite 555±3 Ma, WSWD=0.67** | | | | | | | | | | | | | | | | | | |
| 286-02\_6.1 | 0.24 | 18..3 | 234 | 117 | 0.52 | 560 | 5.3 | 544 | 66 | 11.03 | 10 | 0.0584 | 3 | 0.73 | 3.2 | 0.09069 | 1 | 0.315 |
| 286-02\_7.1 | 0.29 | 12.90 | 167 | 83 | 0.51 | 55 | 6 | 626 | 91 | 11.13 | 1.1 | 0.0606 | 4.2 | 0.751 | 4.4 | 0.0898 | 1.1 | 0.258 |
| 286-02\_8.1 | 0.28 | 9.56 | 125 | 47 | 0.39 | 547 | 6.3 | 570 | 78 | 11.29 | 1.2 | 0.0591 | 3.6 | 0.721 | 3.8 | 0.0885 | 1.2 | 0.318 |
| 286-02\_9.1 | 0.00 | 7.69 | 101 | 43 | 0.44 | 546 | 6.7 | 550 | 68 | 11.32 | 1.3 | 0.0585 | 3.1 | 0.713 | 3.4 | 0.0883 | 1.3 | 0.378 |
| 286-02\_10.1 | 0.60 | 7.71 | 99 | 45 | 0.47 | 555 | 9.6 | 525 | 130 | 11.12 | 1.8 | 0.0579 | 6 | 0.717 | 6.3 | 0.0899 | 1.8 | 0.289 |

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| **Sample**  **spot**  **ID** | **206Pb** | | **concentrations, ppm** | | **Th /U** | **Ages, Ma** | | | | **Isotopic ratios** | | | | | | | | **Error**  **corr.** |
| common, % | radiogenic, ppm | U | Th | 206Pb/ 238U | ±% | 207Pb/ 206Pb | ±% | 238U /206Pb | ±% | 207Pb /206Pb | ±% | 207Pb /235U | ±% | 206Pb /238U | ±% |
| **Ediacaran** | | | | | | | | | | | | | | | | | | |
| 286-02\_11.1 | 0.42 | 6.29 | 83 | 34 | 0.43 | 545 | 7.3 | 575 | 110 | 11.34 | 1.4 | 0.0592 | 5 | 0.72 | 5.2 | 0.0882 | 1.4 | 0.269 |
| 286-02\_12.1 | 0.36 | 7.81 | 103 | 31 | 0.31 | 545 | 6.8 | 527 | 96 | 11.33 | 1.3 | 0.0579 | 4.4 | 0.705 | 4.6 | 0.0883 | 1.3 | 0.285 |
| 286-02\_13.1 | 0.48 | 6.83 | 87 | 32 | 0.38 | 562 | 7.5 | 544 | 120 | 10.98 | 1.4 | 0.0584 | 5.3 | 0.733 | 5.4 | 0.0911 | 1.4 | 0.256 |
| 286-02\_14.1 | 0.38 | 13.90 | 180 | 101 | 0.58 | 553 | 6 | 486 | 130 | 11.16 | 1.1 | 0.0569 | 5.9 | 0.702 | 6.1 | 0.0896 | 1.1 | 0.185 |
| 286-02\_15.1 | 0.36 | 15.40 | 197 | 118 | 0.62 | 560 | 5.7 | 503 | 95 | 11.01 | 1.1 | 0.0573 | 4.3 | 0.717 | 4.4 | 0.0908 | 1.1 | 0.238 |
| 286-02\_18.1 | 0.47 | 4.12 | 52 | 20 | 0.40 | 565 | 7.5 | 478 | 120 | 10.92 | 1.4 | 0.0567 | 5.5 | 0.715 | 5.6 | 0.0916 | 1.4 | 0.247 |
| 286-02\_19.1 | 0.47 | 3.88 | 50 | 18 | 0.38 | 556 | 7.4 | 501 | 120 | 11.09 | 1.4 | 0.0573 | 5.3 | 0.711 | 5.5 | 0.0901 | 1.4 | 0.255 |
| 286-02\_20.1 | 0.23 | 8.69 | 112 | 71 | 0.65 | 555 | 5.5 | 496 | 67 | 11.12 | 1 | 0.0571 | 3.1 | 0.708 | 3.2 | 0.08996 | 1 | 0.319 |
| 286-02\_21.1 | 0.42 | 8.82 | 115 | 61 | 0.54 | 548 | 5.6 | 504 | 120 | 11.26 | 1.1 | 0.0573 | 5.5 | 0.702 | 5.6 | 0.08877 | 1.1 | 0.189 |
| 286-02\_22.1 | 0.17 | 12.50 | 161 | 86 | 0.55 | 557 | 4.8 | 550 | 52 | 11.084 | 0.9 | 0.0586 | 2.4 | 0.728 | 2.5 | 0.09021 | 0.9 | 0.354 |
| 286-02\_24.1 | 0.96 | 7.45 | 94 | 42 | 0.46 | 564 | 7.3 | 376 | 160 | 10.93 | 1.3 | 0.0541 | 7.2 | 0.682 | 7.3 | 0.0915 | 1.3 | 0.185 |
| 286-02\_25.1 | 0.75 | 6.58 | 84 | 35 | 0.43 | 558 | 6.9 | 456 | 190 | 11.05 | 1.3 | 0.0561 | 8.4 | 0.7 | 8.5 | 0.0904 | 1.3 | 0.153 |
| 286-02\_26.1 | -- | 9.51 | 123 | 39 | 0.33 | 557 | 5.3 | 568 | 49 | 11.08 | 0.99 | 0.059 | 2.2 | 0.735 | 2.4 | 0.09029 | 0.99 | 0.407 |
| **234.02 – plagiogranite 559±2 Ma. WSWD=0.43** | | | | | | | | | | | | | | | | | | |
| 234.02\_1.1 | 0.02 | 48.8 | 631 | 71 | 0.12 | 556 | 3.4 | 544 | 24 | 11.096 | 0.63 | 0.05837 | 1.1 | 0.7253 | 1.3 | 0.09012 | 0.63 | 0.502 |
| 234.02\_2.1 | 0.00 | 37.8 | 487 | 447 | 0.95 | 557 | 3.5 | 541 | 26 | 11.087 | 0.66 | 0.05829 | 1.2 | 0.7249 | 1.4 | 0.0902 | 0.66 | 0.483 |
| 234.02\_3.1 | 4.36 | 96.9 | 1191 | 64 | 0.06 | 558 | 2.9 | 615 | 60 | 11.043 | 0.55 | 0.0603 | 2.8 | 0.751 | 2.8 | 0.09036 | 0.55 | 0.193 |
| 234.02\_4.1 | 0.05 | 48 | 612 | 100 | 0.17 | 563 | 3.1 | 557 | 25 | 10.963 | 0.57 | 0.05871 | 1.1 | 0.7384 | 1.3 | 0.09121 | 0.57 | 0.446 |
| 234.02\_5.1 | 0.11 | 50.8 | 653 | 170 | 0.27 | 559 | 2.9 | 530 | 25 | 11.045 | 0.55 | 0.058 | 1.1 | 0.724 | 1.3 | 0.09053 | 0.55 | 0.437 |
| 234.02\_6.1 | 0.26 | 33.4 | 429 | 890 | 2.14 | 557 | 3.6 | 557 | 70 | 11.08 | 0.67 | 0.0587 | 3.2 | 0.731 | 3.3 | 0.09024 | 0.67 | 0.204 |
| 234.02\_7.1 | 25.33 | 12.9 | 122 | 186 | 1.58 | 560 | 11 | 1006 | 420 | 10.83 | 2.1 | 0.073 | 21 | 0.91 | 21 | 0.0908 | 2.1 | 0.101 |
| 234.02\_8.1 | 0.09 | 55.5 | 714 | 389 | 0.56 | 557 | 3.2 | 593 | 27 | 11.074 | 0.6 | 0.05972 | 1.2 | 0.744 | 1.4 | 0.0903 | 0.6 | 0.437 |
| 234.02\_9.1 | 0.09 | 59.7 | 759 | 46 | 0.06 | 564 | 3.3 | 534 | 33 | 10.935 | 0.6 | 0.05811 | 1.5 | 0.733 | 1.6 | 0.09144 | 0.6 | 0.368 |
| 234.02\_10.1 | 0.00 | 44 | 569 | 27 | 0.05 | 557 | 3.3 | 557 | 27 | 11.091 | 0.62 | 0.05873 | 1.2 | 0.73 | 1.4 | 0.09017 | 0.62 | 0.451 |

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| **Sample**  **spot**  **ID** | **206Pb** | | **Concentrations, ppm** | | **Th /U** | **Age, Ma** | | | | **Isotopic ratios** | | | | | | | | **Error**  **corr.** |
| Common, % | radiogenic, ppm | U | Th | 206Pb/ 238U | ±% | 207Pb/ 206Pb | ±% | 238U /206Pb | ±% | 207Pb /206Pb | ±% | 207Pb /235U | ±% | 206Pb /238U | ±% |
| **Ediacaran** | | | | | | | | | | | | | | | | | | |
| **257.01 – plagiogranite 559±4 Ma, WSWD=0.44** | | | | | | | | | | | | | | | | | | |
| 257\_1.1 | 0.00 | 3.02 | 38 | 15 | 0.41 | 564 | 8.2 | 774 | 89 | 10.95 | 1.5 | 0.065 | 4.2 | 0.818 | 4.5 | 0.0914 | 1.5 | 0.339 |
| 257\_2.1 | 0.00 | 3.65 | 46 | 13 | 0.30 | 566 | 7.7 | 738 | 88 | 10.9 | 1.4 | 0.0639 | 4.2 | 0.808 | 4.4 | 0.0917 | 1.4 | 0.322 |
| 257\_3.1 | 0.65 | 5.83 | 74 | 20 | 0.28 | 564 | 6.8 | 471 | 180 | 10.94 | 1.3 | 0.0565 | 8.2 | 0.711 | 8.3 | 0.0914 | 1.3 | 0.153 |
| 257\_4.1 | 0.26 | 3.75 | 48 | 16 | 0.35 | 559 | 8.7 | 608 | 100 | 11.03 | 1.6 | 0.0601 | 4.7 | 0.751 | 5 | 0.0906 | 1.6 | 0.325 |
| 257\_5.1 | 0.13 | 14 | 180 | 63 | 0.36 | 559 | 4.5 | 465 | 56 | 11.041 | 0.84 | 0.0563 | 2.5 | 0.703 | 2.6 | 0.09056 | 0.84 | 0.316 |
| 257\_6.1 | 0.00 | 25.6 | 330 | 165 | 0.52 | 557 | 4.3 | 501 | 36 | 11.086 | 0.81 | 0.0572 | 1.6 | 0.712 | 1.8 | 0.09021 | 0.81 | 0.445 |
| 257\_7.1 | 0.00 | 12.1. | 156 | 77 | 0.51 | 559 | 4.6 | 569 | 50 | 11.044 | 0.87 | 0.0591 | 2.3 | 0.737 | 2.5 | 0.09055 | 0.87 | 0.353 |
| 257\_8.1 | 0.00 | 3.1 | 40 | 13 | 0.34 | 555 | 8.1 | 586 | 100 | 11.11 | 1.5 | 0.0595 | 4.7 | 0.738 | 4.9 | 0.09 | 1.5 | 0.310 |
| 257\_9.1 | 1.11 | 7.57 | 96 | 31 | 0.33 | 559 | 5.9 | 342 | 140 | 11.03 | 1.1 | 0.0533 | 6 | 0.666 | 6.1 | 0.09059 | 1.1 | 0.178 |
| 257\_10.1 | 0.00 | 7.8 | 100 | 29 | 0.30 | 560 | 5.5 | 621 | 61 | 11.02 | 1 | 0.0605 | 2.8 | 0.757 | 3 | 0.09076 | 1 | 0.340 |
| 257\_1.1 | 0.00 | 3.02 | 38 | 15 | 0.41 | 564 | 8.2 | 774 | 89 | 10.95 | 1.5 | 0.065 | 4.2 | 0.818 | 4.5 | 0.0914 | 1.5 | 0.339 |
| 257\_2.1 | 0.00 | 3.65 | 46 | 13 | 0.30 | 566 | 7.7 | 738 | 88 | 10.9 | 1.4 | 0.0639 | 4.2 | 0.808 | 4.4 | 0.0917 | 1.4 | 0.322 |
| 257\_3.1 | 0.65 | 5.83 | 74 | 20 | 0.28 | 564 | 6.8 | 471 | 180 | 10.94 | 1.3 | 0.0565 | 8.2 | 0.711 | 8.3 | 0.0914 | 1.3 | 0.153 |
| **254.02 - plagiogranite 557±4 Ma. WSWD=0.061** | | | | | | | | | | | | | | | | | | |
| 254.02\_1.1 | 0.30 | 9.6 | 122 | 67 | 0.57 | 564 | 8.1 | 505 | 91 | 10.94 | 1.5 | 0.0574 | 4.2 | 0.723 | 4.4 | 0.09014 | 1.5 | 0.340 |
| 254.02\_2.1 | 0.15 | 13.7 | 173 | 96 | 0.57 | 568 | 5.1 | 541 | 54 | 10.87 | 0.94 | 0.0583 | 2.5 | 0.740 | 2.6 | 0.0923 | 0.94 | 0.355 |
| 254.02\_3.1 | 0.28 | 20.5 | 260 | 200 | 0.79 | 563 | 7.3 | 489 | 64 | 10.95 | 1.4 | 0.0569 | 2.9 | 0.717 | 3.2 | 0.0913 | 1.4 | 0.424 |
| 254.02\_4.1 | 0.21. | 16 | 203 | 149 | 0.76 | 553 | 5.1 | 642 | 53 | 44.17 | 0.96 | 0.0611 | 2.5 | 0.754 | 2.7 | 0.08954 | 0.96 | 0.361 |
| 254.02\_5.1 | 0.40 | 15.9 | 204 | 121 | 0.61 | 557 | 5.1 | 533 | 83 | 11.08 | 0.96 | 0.0581 | 3.8 | 0.723 | 3.9 | 0.09028 | 0.96 | 0.243 |
| 254.02\_6.1 | 0.21 | 13.3 | 174 | 105 | 0.63 | 550 | 5.8 | 534 | 61 | 11.24 | 1.1 | 0.0581 | 2.8 | 0.713 | 3.0 | 0.08899 | 1.1 | 0.368 |
| 254.02\_7.1 | 0.15 | 19.2 | 247 | 171 | 0.72 | 556 | 4.7 | 556 | 47 | 11.104 | 0.88 | 0.0587 | 2.2 | 0.729 | 2.3 | 0.09005 | 0.88 | 0.374 |
| 254.02\_8.1 | 0.42 | 14.8 | 189 | 93 | 0.51 | 556 | 5.2 | 555 | 87 | 11.04 | 0.97 | 0.0587 | 4.0 | 0.733 | 4.1 | 0.09058 | 0.97 | 0.237 |
| 254.02\_9.1 | 0.23 | 18.1 | 236 | 125 | 0.55 | 552 | 5.5 | 555 | 57 | 11.18 | 1.0 | 0.0587 | 2.6 | 0.724 | 2.8 | 0.08943 | 1 | 0.367 |
| 254.02\_10.1 | 0.16 | 15 | 198 | 100 | 0.52 | 553 | 4.9 | 557 | 57 | 11.17 | 0.93 | 0.0587 | 2.6 | 0.725 | 2.8 | 0.08953 | 0.93 | 0.338 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample**  **spot**  **ID** | **206Pb** | | **Concentrations, ppm** | | **Th /U** | **Age, Ma** | | | | **Isotopic ratios** | | | | | | | | **Error**  **corr.** |
| Common, % | radiogenic, ppm | U | Th | 206Pb/ 238U | ±% | 207Pb/ 206Pb | ±% | 238U /206Pb | ±% | 207Pb /206Pb | ±% | 207Pb /235U | ±% | 206Pb /238U | ±% |
| **Triassic** | | | | | | | | | | | | | | | | | | |
| **К-4-29 – plagiogranite 235±2 Ma, WSWD=0.0052** | | | | | | | | | | | | | | | | | | |
| K-4-29\_1.1 | 0.58 | 9.32 | 297 | 72 | 0.25 | 230 | 4.4 | 44 | 170 | 27.5 | 2 | 0.0469 | 7 | 0.235 | 7.3 | 0.03636 | 2 | 0.270 |
| K-4-29\_2.1 | 0.68 | 13.2 | 411 | 135 | 0.34 | 235 | 4.3 | 87 | 180 | 26.89 | 1.9 | 0.0478 | 7.4 | 0.245 | 7.7 | 0.03718 | 1.9 | 0.246 |
| K-4-29\_3.1 | 0.78 | 8.77 | 280 | 47 | 0.18 | 230 | 4.5 | 69 | 250 | 27.58 | 2 | 0.0474 | 10 | 0.237 | 11 | 0.03625 | 2 | 0.188 |
| K-4-29\_4.1 | 0.00 | 10.6 | 330 | 90 | 0.28 | 237 | 4.4 | 363 | 76 | 26.71 | 1.9 | 0.0538 | 3.4 | 0.278 | 3.9 | 0.03744 | 1.9 | 0.488 |
| K-4-29\_5.1 | 0.83 | 13.6 | 427 | 78 | 0.19 | 234 | 4.3 | -1 | 190 | 27.1 | 1.9 | 0.046 | 8 | 0.234 | 8.2 | 0.0369 | 1.9 | 0.227 |
| K-4-29\_6.1 | 0.64 | 12.9 | 405 | 45 | 0.11 | 232 | 4.2 | 197 | 140 | 27.24 | 1.9 | 0.05 | 6 | 0.253 | 6.3 | 0.03671 | 1.9 | 0.297 |
| K-4-29\_7.1 | 0.00 | 4.22 | 130 | 23 | 0.18 | 239 | 5.3 | 247 | 120 | 26.43 | 2.2 | 0.0511 | 5.2 | 0.267 | 5.7 | 0.03784 | 2.2 | 0.394 |
| K-4-29\_8.1 | 1.01 | 11.8 | 355 | 67 | 0.20 | 242 | 4.8 | -154 | 250 | 26.17 | 2 | 0.0432 | 10 | 0.228 | 10 | 0.03821 | 2 | 0.195 |
| K-4-29\_9.1 | 0.34 | 19.2 | 604 | 60 | 0.10 | 234 | 4.1 | 305 | 82 | 27.06 | 1.8 | 0.0524 | 3.6 | 0.267 | 4 | 0.03695 | 1.8 | 0.445 |
| K-4-29\_10.1 | 1.77 | 29.1 | 900 | 318 | 0.37 | 234 | 4.2 | -168 | 270 | 27.02 | 1.8 | 0.043 | 11 | 0.219 | 11 | 0.037 | 1.8 | 0.162 |
| K-4-29\_11.1 | 0.00 | 10.3 | 326 | 64 | 0.20 | 232 | 4.3 | 294 | 76 | 27.25 | 1.9 | 0.0522 | 3.3 | 0.264 | 3.8 | 0.0367 | 1.9 | 0.494 |
| K-4-29\_12.1 | 0.00 | 7.46 | 228 | 39 | 0.18 | 241 | 5 | 320 | 89 | 26.24 | 2.1 | 0.0528 | 3.9 | 0.277 | 4.5 | 0.0381 | 2.1 | 0.474 |
| K-4-29\_13.1 | 0.35 | 13.1 | 405 | 133 | 0.34 | 237 | 4.3 | 211 | 100 | 26.68 | 1.8 | 0.0503 | 4.4 | 0.26 | 4.8 | 0.03747 | 1.8 | 0.385 |
| K-4-29\_14.1 | 0.89 | 13.6 | 410 | 119 | 0.30 | 243 | 4.5 | 41 | 240 | 26.07 | 1.9 | 0.0468 | 10 | 0.248 | 10 | 0.03835 | 1.9 | 0.184 |

Suppl. Table 3. U-Pb LA-ICPMS data (sample 11-32-5).

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| **№** | **Th/U** | **1σ** | **Isotopic ratios** | | | | | | **Error**  **corr.** | **Ages, Ma** | | | | | | **Discord.,**  **%** |
| **207Pb/ 206Pb** | **1σ** | **207Pb /235U** | **1σ** | **206Pb /238U** | **1σ** | **207Pb/ 206Pb** | **1σ** | **207Pb /235U** | **1σ** | **206Pb /238U** | **1σ** |
| 1 | 0.91 | 0.01690 | 0.06550 | 0.00386 | 0.74357 | 0.04247 | 0.08236 | 0.00194 | 0.41 | 790.40 | 119.06 | 564.50 | 24.73 | 510.20 | 11.56 | 10.64 |
| 2 | 0.96 | 0.01949 | 0.05618 | 0.00283 | 0.65291 | 0.03209 | 0.08430 | 0.00171 | 0.41 | 458.60 | 108.68 | 510.30 | 19.71 | 521.70 | 10.19 | -2.19 |
| 3 | 1.13 | 0.01917 | 0.06260 | 0.00376 | 0.76182 | 0.04448 | 0.08825 | 0.00209 | 0.41 | 694.70 | 123.19 | 575.10 | 25.64 | 545.20 | 12.35 | 5.48 |
| 4 | 1.07 | 0.01931 | 0.05764 | 0.00415 | 0.11669 | 0.00810 | 0.01468 | 0.00036 | 0.35 | 515.70 | 151.05 | 112.10 | 7.37 | 93.90 | 2.31 | 19.38 |
| 5 | 0.51 | 0.00902 | 0.06178 | 0.00274 | 0.74159 | 0.03220 | 0.08702 | 0.00168 | 0.44 | 666.50 | 92.33 | 563.30 | 18.77 | 537.90 | 9.98 | 4.72 |
| 6 | 0.84 | 0.01709 | 0.05416 | 0.00262 | 0.26086 | 0.01232 | 0.03490 | 0.00067 | 0.41 | 377.50 | 104.90 | 235.40 | 9.92 | 221.10 | 4.20 | 6.47 |
| 7 | 0.77 | 0.01849 | 0.06118 | 0.00484 | 0.74585 | 0.05727 | 0.08831 | 0.00254 | 0.37 | 645.60 | 161.48 | 565.80 | 33.31 | 545.50 | 15.07 | 3.72 |
| 8 | 0.70 | 0.01543 | 0.06674 | 0.00442 | 0.69264 | 0.04433 | 0.07516 | 0.00193 | 0.40 | 829.70 | 132.22 | 534.40 | 26.59 | 467.20 | 11.60 | 14.38 |
| 9 | 0.83 | 0.01647 | 0.06428 | 0.00346 | 0.72594 | 0.03796 | 0.08178 | 0.00181 | 0.42 | 750.70 | 109.63 | 554.20 | 22.33 | 506.80 | 10.79 | 9.35 |
| 10 | 0.74 | 0.01675 | 0.06395 | 0.00450 | 0.72613 | 0.04956 | 0.08220 | 0.00219 | 0.39 | 740.10 | 142.29 | 554.30 | 29.15 | 509.20 | 13.04 | 8.86 |
| 11 | 1.00 | 0.01944 | 0.05998 | 0.00299 | 0.71081 | 0.03459 | 0.08575 | 0.00180 | 0.43 | 602.70 | 104.23 | 545.20 | 20.53 | 530.40 | 10.66 | 2.79 |
| 12 | 0.93 | 0.01892 | 0.06525 | 0.00355 | 0.74629 | 0.03949 | 0.08273 | 0.00187 | 0.43 | 782.50 | 110.31 | 566.10 | 22.96 | 512.40 | 11.15 | 10.48 |
| 13 | 0.94 | 0.02071 | 0.06566 | 0.00419 | 0.81564 | 0.05051 | 0.08984 | 0.00229 | 0.41 | 795.60 | 128.35 | 605.60 | 28.25 | 554.60 | 13.54 | 9.20 |
| 14 | 0.53 | 0.01444 | 0.06891 | 0.00573 | 0.76311 | 0.06115 | 0.08007 | 0.00255 | 0.40 | 896.20 | 162.51 | 575.80 | 35.22 | 496.60 | 15.22 | 15.95 |
| 15 | 0.65 | 0.01891 | 0.05762 | 0.00596 | 0.72255 | 0.07273 | 0.09065 | 0.00316 | 0.35 | 515.20 | 212.72 | 552.20 | 42.87 | 559.40 | 18.66 | -1.29 |
| 16 | 0.94 | 0.01790 | 0.06746 | 0.00229 | 1.17914 | 0.04008 | 0.12630 | 0.00226 | 0.53 | 851.90 | 69.13 | 790.90 | 18.68 | 766.70 | 12.92 | 3.16 |
| 17 | 0.84 | 0.01864 | 0.07361 | 0.00431 | 0.85776 | 0.04873 | 0.08417 | 0.00210 | 0.44 | 1030.80 | 114.09 | 628.90 | 26.64 | 521.00 | 12.46 | 20.71 |
| 18 | 0.81 | 0.01938 | 0.05112 | 0.00409 | 0.60541 | 0.04731 | 0.08554 | 0.00238 | 0.36 | 246.00 | 174.39 | 480.70 | 29.92 | 529.10 | 14.14 | -9.15 |
| 19 | 0.97 | 0.02191 | 0.06018 | 0.00407 | 0.69968 | 0.04606 | 0.08396 | 0.00219 | 0.40 | 610.00 | 139.76 | 538.60 | 27.52 | 519.70 | 13.03 | 3.64 |
| 20 | 0.91 | 0.02055 | 0.05936 | 0.00371 | 0.74277 | 0.04539 | 0.09033 | 0.00224 | 0.41 | 580.40 | 130.39 | 564.00 | 26.44 | 557.50 | 13.26 | 1.17 |
| 21 | 0.50 | 0.01368 | 0.06461 | 0.00512 | 0.71861 | 0.05528 | 0.08024 | 0.00240 | 0.39 | 761.80 | 158.77 | 549.80 | 32.66 | 497.60 | 14.35 | 10.49 |
| 22 | 0.92 | 0.02177 | 0.06067 | 0.00416 | 0.72641 | 0.04857 | 0.08637 | 0.00230 | 0.40 | 627.40 | 141.14 | 554.40 | 28.57 | 534.00 | 13.63 | 3.82 |
| 23 | 1.17 | 0.02643 | 0.05906 | 0.00373 | 0.71615 | 0.04423 | 0.08744 | 0.00220 | 0.41 | 569.40 | 131.66 | 548.40 | 26.17 | 540.40 | 13.02 | 1.48 |
| 24 | 0.92 | 0.02248 | 0.06052 | 0.00439 | 0.73944 | 0.05233 | 0.08809 | 0.00245 | 0.39 | 622.30 | 149.12 | 562.10 | 30.55 | 544.20 | 14.52 | 3.29 |
| 25 | 0.85 | 0.02264 | 0.06274 | 0.00517 | 0.77994 | 0.06254 | 0.08961 | 0.00278 | 0.39 | 699.50 | 166.38 | 585.40 | 35.68 | 553.20 | 16.48 | 5.82 |
| 26 | 0.85 | 0.02222 | 0.06551 | 0.00496 | 0.81381 | 0.06007 | 0.08949 | 0.00264 | 0.40 | 790.70 | 151.23 | 604.60 | 33.63 | 552.50 | 15.64 | 9.43 |
| 27 | 0.63 | 0.01997 | 0.06802 | 0.00670 | 0.85584 | 0.08189 | 0.09062 | 0.00331 | 0.38 | 869.20 | 191.86 | 627.80 | 44.80 | 559.20 | 19.55 | 12.27 |

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| Suppl. Table 4. Major (wt.%) and trace elements (ppm) of Ediacaran and Triassic plagiogranites of Ust-Belaya Mountains. | | | | | | | | | |
| **Sample No** | **Ediacaran** | | | | | | | | | | | | **Permian-Triassic** | | |
| **234.02** | **2149.01** | **286.02** | **A-1195/01** | **A-1202.01** | **284.06** | **07-134** | **А-12-01** | **07-142** | **260.01** | **250.03/13\*** | **250.04/13 \*** | **K-4-29** | **07-121** | **07-168** |
| **SiO2**  **TiO2**  **Al2O3**  **Fe2O3**  **FeO**  **MnO**  **MgO**  **CaO**  **K2O**  **Na2O**  **P2O5**  **LOI** | 61.92  0.37  16.42  1.22  1.74  0.04  1.67  3.18  1.40  5.11  0.15  6.59 | 62.35  0.39  15.84  2.67  2.66  0.10  3.87  5.23  1.00  3.89  0.12  1.58 | 64.72  0.41  17.35  1.34  1.91  0.05  2.48  3.56  0.66  4.43  0.08  2.79 | 66.86  0.60  15.28  2.25  2.51  0.09  1.84  1.96  0.42  5.71  0.15  2.05 | 67.88  0.36  14.70  1.26  2.22  0.09  3.87  1.50  0.31  4.70  0.11  2.75 | 68.37  0.67  14.38  2.40  3.21  0.09  1.37  2.12  0.23  5.90  0.19  0.72 | 68.54  0.18  17.31  1.13  0.75  0.03  2.26  1.90  0.97  5.20  0.07  1.58 | 73.17  0.27  13.72  2.25  0.58  0.04  1.98  1.83  0.64  3.94  0.10  1.41 | 76.50  0.15  10.82  2.03  1.32  0.04  0.56  0.65  0.91  6.03  0.02  0.6 | 77.38  0.14  13.04  1.53  0.57  0.05  0.17  0.34  1.02  5.27  0.02  0.42 | 72.5  0.122  14.5  2.88  -  0.07  1.01  3.59  0.056  4.81  0.035  0.42 | 74.8  0.139  14  2.38  -  0.023  0.368  3.17  0.058  4.31  0.063  0.6 | 68.76  0.18  17.37  1.01  0.86  0.03  2.27  1.91  0.98  5.21  0.07  1.26 | 71.31  0.06  16.70  1.02  0.49  0.03  0.98  0.61  1.49  5.33  0.07  1.85 | 71.51  0.32  12.57  1.87  1.38  0.05  0.29  1.89  2.13  4.99  0.07  2.6 |
| **Total** | 99.81 | 99.70 | 99.78 | 99.73 | 99.75 | 99.65 | 99.92 | 99.93 | 99.63 | 99.94 | 99.994 | 99.311 | 99.90 | 99.94 | 99.67 |
| **V**  **Cr**  **Co**  **Ni**  **Cu**  **Ga**  **Rb**  **Sr**  **Y**  **Zr**  **Nb**  **Cs**  **Ba**  **La**  **Ce**  **Pr** | 35  34  8  <6  20  19.3  57  244  5  136  4.02  2.52  181  12.29  26.45  3.28 | 178  46  18  18  32  16.6  14  293  12  66  3.99  0.62  197  9.04  19.28  2.56 | 59  3  8  7  58  15.0  7  67  8  78  2.1  0.38  40  4.99  9.27  1.34 | 14  12  3  <6  7  18.7  3  111  33  179  8.13  0.03  77  11.86  26.89  3.95 | 97  16  9  8  18  14.2  4  95  11  103  5.07  0.05  52  7.52  17.29  2.41 | 8  5  6  4  14  22.9  3  72  68  169  11.1  0.04  36  7.16  21.69  3.76 | 11  44  5  22  78  14.6  7  173  4  80  1.06  0.06  56  6.44  12.66  1.45 | 55  5  6  6  6  11.9  7  232  7  48  2.3  0.11  140  9.87  20.94  2.72 | 5  <20  1  <6  12  23.9  7  17  66  250  15.4  0.05  106  25.66  68.55  10.24 | <2  11  1  <6  5  24.1  10  11  34  248  15.5  0.02  111  16.18  48.18  6.13 | 8  34  8  18  81  12.4  2.3  400  2  139  1.09  0.091  86  1.99  3.01  0.33 | 8  58  5  23  20  11.5  1.4  345  1  71  1.34  0.096  74  2.15  3.22  0.33 | 14  36  5  30  7  18.6  16  382  3  68  0.81  0.27  200  2.58  5.45  0.74 | 6  39  1  <6  8  18.8  39  66  4  30  1.97  2.32  229  6.08  12.79  1.59 | 19  40  3  <6  8  21.1  41  62  49  209  11.1  0.41  483  20.00  45.15  6.02 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample No** | **Ediacaran** | | | | | | | | | | | | **Permian-Triassic** | | |
| **234.02** | **2149.01** | **286.02** | **A-1195.01** | **A-1202.01** | **А-284.06** | **07-134** | **А-12-01** | **07-142** | **260.01** | **250.03/13\*** | **250.04/13 \*** | **K-4-29** | **07-121** | **07-168** |
| **Nd**  **Sm**  **Eu**  **Gd**  **Tb**  **Dy**  **Ho**  **Er**  **Tm**  **Yb**  **Lu**  **Hf**  **Ta**  **Pb**  **Th**  **U**  **LaN/YbN**  **Eu/Eu\***  **Sr/Y** | 11.90  2.14  0.64  1.69  0.21  0.96  0.17  0.46  0.06  0.39  0.06  3.27  -  16.11  2.47  0.73  22.39  1.02  52 | 10.56  2.38  0.64  2.35  0.35  2.05  0.43  1.27  0.18  1.27  0.20  1.78  -  0.72  1.21  0.26  5.10  0.82  24 | 5.57  1.30  0.46  1.37  0.21  1.18  0.23  0.73  0.10  0.70  0.10  2.39  -  3.80  1.63  0.30  5.15  1.04  9 | 17.85  4.71  1.47  5.56  0.92  5.81  1.24  3.78  0.55  3.74  0.57  4.63  -  0.44  1.31  0.45  2.28  0.88  3 | 10.01  2.18  0.57  2.06  0.31  1.77  0.37  1.12  0.17  1.13  0.19  2.67  -  1.30  1.40  0.44  4.77  0.83  9 | 20.05  6.54  2.32  8.76  1.54  9.80  2.15  6.66  0.97  6.69  1.07  5.19  -  0.47  1.00  0.22  0.77  0.94  1 | 5.40  0.98  0.44  0.90  0.13  0.74  0.16  0.47  0.07  0.57  0.10  2.03  -  1.14  1.25  0.21  8.07  1.42  40 | 10.75  2.09  0.53  1.70  0.24  1.25  0.25  0.75  0.11  0.75  0.12  1.85  -  0.85  1.74  0.44  9.41  0.85  31 | 45.26  12.06  1.39  13.14  2.31  14.89  3.05  9.33  1.43  9.56  1.51  9.49  -  1.09  2.90  0.70  1.93  0.34  0.3 | 24.76  5.98  0.87  5.97  1.08  6.75  1.43  4.41  0.69  5.23  0.83  8.62  -  0.81  2.60  0.64  2.22  0.44  0.3 | 1.22  0.21  0.32  0.23  0.04  0.31  0.08  0.28  0.06  0.49  0.08  1.76  0.11  -  0.29  0.04  2.90  4.55  200 | 1.13  0.18  0.27  0.15  0.03  0.16  0.04  0.15  0.03  0.26  0.05  2.42  0.09  -  0.38  0.04  5.99  5.15  345 | 3.26  0.89  0.31  0.87  0.12  0.59  0.10  0.26  0.04  0.25  0.04  2.11  -  4.83  0.45  0.41  7.35  1.06  131 | 6.16  1.39  0.36  1.12  0.15  0.72  0.12  0.28  0.03  0.18  0.03  1.53  -  5.19  1.10  0.61  24.68  0.89  18 | 24.66  6.30  1.16  6.92  1.24  7.95  1.70  5.28  0.78  5.03  0.80  6.32  -  7.49  5.08  1.58  2.85  0.54  1 |

Note: Samples with an asterisk are samples of P.L. Tikhomirov.

Suppl. Table 5. Sr-Nd isotopic composition of Ediacaran and Triassic plagiogranites of Ust-Belaya Mountains.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sample** | **Sm. ppm** | **Nd. ppm** | **147Sm/ 144Nd** | **143Nd/ 144Nd** | **2s. abs.** | **Rb. ppm** | **Sr. ppm** | **87Rb/ 86Sr** | **2s. %** | **87Sr/**  **86Sr** | **2s. abs** | **87Sr/ 86Sr\*** | **143Nd/ 144Nd\*** | **ԑNd(*t*)** | **tNd(DM)** | **tNd(2DM)** |
| 250.03/13\* | 0.15 | 0.93 | 0.0963 | 0.512617 | 0.000004 | 1.60 | 408 | 0.01132 | 0.494 | 0.702451 | 0.000006 | 0.702362 | 0.512270 | 6.7 | 694 | 730 |
| 250.04/13\* | 0.12 | 0.90 | 0.0790 | 0.512550 | 0.000006 | 0.62 | 290 | 0.00619 | 0.681 | 0.702450 | 0.000008 | 0.702401 | 0.512266 | 6.6 | 681 | 738 |
| 07-134 | 0.93 | 5.11 | 0.1100 | 0.512749 | 0.000006 | 5.32 | 155 | 0.09913 | 0.402 | 0.702981 | 0.000011 | 0.702204 | 0.512353 | 8.3 | 592 | 597 |
| A-1195.01 | 4.59 | 17.5 | 0.1588 | 0.512956 | 0.000004 | 2.44 | 104 | 0.06801 | 0.449 | 0.703216 | 0.000005 | 0.702683 | 0.512384 | 8.9 | - | 546 |
| 2149.01 | 2.31 | 10.4 | 0.1350 | 0.512849 | 0.000006 | 11.8 | 260 | 0.13071 | 0.393 | 0.703433 | 0.000006 | 0.702409 | 0.512363 | 8.5 | 586 | 580 |
| K-4-29 | 0.81 | 3.10 | 0.1586 | 0.512982 | 0.000012 | 14.2 | 354 | 0.11569 | 0.394 | 0.703639 | 0.000006 | 0.703253 | 0.512738 | 7.9 | - | 372 |
| 07-121 | 1.33 | 5.99 | 0.1338 | 0.513044 | 0.000006 | 34.7 | 64.0 | 1.56763 | 0.405 | 0.706772 | 0.000007 | 0.701532 | 0.512838 | 9.8 | 205 | 210 |

Note: 87Sr/86Sr\*, 143Nd/144Nd\* correspond to values of isotopic compositions at the time, specified in Suppl. Table 2.