***Supplement 1***

*V.A. Zaika, A. A. Sorokin,* “Age and Sources of the Galam Terrane Metasedimentary Rocks in the Mongol–Okhotsk Fold Belt: Results from U–Pb ages and Lu-Hf Isotope Data from Detrital Zircons,”

Geotectonics. 2021. Vol.55. No.6.

© *Pleiades Publishing, Ltd*

**Table S2.** Lu–Hf isotopic data for zircons from metasedimentary rocks of the Galam Terrane.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Analysis | (176Yb + 176Lu) / 176Hf, (%) | 176Lu/177Hf | 176Hf/177Hf | ±1s, % | Age, Ma | ɛHf(t) | ± | tHf(DM), Ga | tHf(С), Ga |
| ***Sample V-126: a metasiltstone of the Akrinda Formation Formation*** | | | | | | | | | | |
| 1 | V-126 Spot 11 | 18.49653853 | 0.00123615 | 0.282519592 | 0.0000205614500588871 | 569.5 | 3.16 | 0.72 | 1.04 | 1.16 |
| 2 | V-126 Spot 17 | 5.08962158 | 0.00031105 | 0.281502282 | 0.0000169727314734168 | 1921.5 | -2.43 | 0.56 | 2.40 | 2.51 |
| 3 | V-126 Spot 19 | 8.80343582 | 0.00061900 | 0.281609281 | 0.0000177928964927022 | 378.3 | -32.98 | 0.62 | 2.28 | 2.82 |
| 4 | V-126 Spot 20 | 10.18769595 | 0.00064933 | 0.281450941 | 0.0000161692234723531 | 1987.7 | -3.21 | 0.53 | 2.49 | 2.60 |
| 5 | V-126 Spot 26 | 8.41645869 | 0.00069035 | 0.282261736 | 0.0000150638023128496 | 595.2 | -5.21 | 0.52 | 1.39 | 1.60 |
| 6 | V-126 Spot 30 | 22.33031936 | 0.00158025 | 0.281410631 | 0.0000194461206932551 | 1942.8 | -6.87 | 0.65 | 2.61 | 2.74 |
| 7 | V-126 Spot 44 | 21.13499906 | 0.00125717 | 0.281613609 | 0.0000174421295771661 | 1868.2 | -0.87 | 0.58 | 2.31 | 2.39 |
| 8 | V-126 Spot 47 | 6.37203376 | 0.00040591 | 0.282211383 | 0.0000159014566252643 | 354.9 | -12.13 | 0.55 | 1.44 | 1.76 |
| 9 | V-126 Spot 52 | 17.87877371 | 0.00111641 | 0.281492386 | 0.0000194385323835951 | 1965.0 | -2.87 | 0.64 | 2.47 | 2.56 |
| 10 | V-126 Spot 60 | 6.69003110 | 0.00044004 | 0.281615726 | 0.0000143986181181222 | 1903.4 | 1.02 | 0.47 | 2.26 | 2.32 |
| 11 | V-126 Spot 64 | 16.20486400 | 0.00122668 | 0.282038794 | 0.0000168877898039677 | 331.4 | -18.93 | 0.59 | 1.72 | 2.09 |
| 12 | V-126 Spot 79 | 20.22473074 | 0.00135164 | 0.281954932 | 0.0000151863214469427 | 333.8 | -21.87 | 0.53 | 1.84 | 2.24 |
| 13 | V-126 Spot 83 | 12.18022587 | 0.00084885 | 0.282535375 | 0.0000172685549519568 | 404.1 | 0.30 | 0.60 | 1.01 | 1.17 |
| 14 | V-126 Spot 97 | 13.66828816 | 0.00098178 | 0.281780371 | 0.0000211080176486000 | 324.7 | -28.16 | 0.74 | 2.06 | 2.54 |
| 15 | V-126 Spot 101 | 52.69953554 | 0.00297280 | 0.282374651 | 0.0000195660797451321 | 507.9 | -3.87 | 0.68 | 1.31 | 1.47 |
| 16 | V-126 Spot 106 | 8.34110549 | 0.00051805 | 0.281330755 | 0.0000154347744420692 | 1956.3 | -8.01 | 0.50 | 2.65 | 2.81 |
| 17 | V-126 Spot 111 | 27.79449495 | 0.00164963 | 0.281549663 | 0.0000199882421619546 | 1996.3 | -0.86 | 0.66 | 2.42 | 2.49 |
| 18 | V-126 Spot 127 | 17.59728577 | 0.00087799 | 0.282676355 | 0.0000162691736570184 | 367.3 | -4.38 | 0.57 | 1.17 | 1.38 |
| ***Sample V-131: a metasandstone of the Onnotek Formation*** | | | | | | | | | | |
| 1 | V-131 Spot 1 | 27.12660816 | 0.00169674 | 0.282422105 | 0.0000186666257198291 | 801.1 | 4.42 | 0.64 | 1.19 | 1.28 |
| 2 | V-131 Spot 5 | 25.40769339 | 0.00159975 | 0.282116416 | 0.0000254049675057012 | 376.5 | -15.31 | 0.89 | 1.63 | 1.94 |
| 3 | V-131 Spot 9 | 21.73971387 | 0.00141165 | 0.282235999 | 0.0000171777622797742 | 796.4 | -2.12 | 0.59 | 1.45 | 1.61 |
| 4 | V-131 Spot 17 | 22.03007995 | 0.00146471 | 0.281934993 | 0.0000216898061779669 | 384.0 | -21.54 | 0.76 | 1.87 | 2.26 |
| 5 | V-131 Spot 38 | 6.71658249 | 0.00041249 | 0.281114922 | 0.0000181014835479774 | 2403.1 | -5.42 | 0.59 | 2.93 | 3.03 |
| 6 | V-131 Spot 39 | 13.86818023 | 0.00093215 | 0.281714362 | 0.0000205403008842554 | 385.8 | -29.18 | 0.72 | 2.15 | 2.64 |
| 7 | V-131 Spot 41 | 13.78025002 | 0.00079545 | 0.281490185 | 0.0000150521713730090 | 1836.7 | -5.37 | 0.49 | 2.45 | 2.58 |
| 8 | V-131 Spot 43 | 14.96395425 | 0.00089206 | 0.282238929 | 0.0000211996254313493 | 784.6 | -2.00 | 0.73 | 1.42 | 1.59 |
| 9 | V-131 Spot 47 | 0.26302012 | 0.00001221 | 0.281216162 | 0.0000177692369609045 | 1921.9 | -12.20 | 0.58 | 2.77 | 2.99 |
| 10 | V-131 Spot 60 | 20.45611621 | 0.00136175 | 0.281831936 | 0.0000244111627855486 | 387.5 | -25.09 | 0.86 | 2.01 | 2.44 |
| 11 | V-131 Spot 64 | 23.98395411 | 0.00153234 | 0.282545838 | 0.0000242304605195845 | 590.5 | 4.42 | 0.84 | 1.01 | 1.11 |
| 12 | V-131 Spot 74 | 26.82376508 | 0.00163776 | 0.281010178 | 0.0000182044579398454 | 2623.4 | -6.31 | 0.59 | 3.17 | 3.25 |
| 13 | V-131 Spot 90 | 16.51226686 | 0.00127094 | 0.282580965 | 0.0000166729711987274 | 501.2 | 3.86 | 0.58 | 0.96 | 1.07 |
| 14 | V-131 Spot 97 | 6.63156980 | 0.00040514 | 0.280907057 | 0.0000153498863478118 | 2556.6 | -9.31 | 0.48 | 3.21 | 3.34 |
| 15 | V-131 Spot 106 | 45.36174795 | 0.00334305 | 0.281954818 | 0.0000177644918912930 | 379.4 | -21.41 | 0.62 | 1.94 | 2.25 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tabl. S2 (сontinued) | | | | | | | | | | |
| No | Analysis | (176Yb + 176Lu) / 176Hf, (%) | 176Lu/177Hf | 176Hf/177Hf | ±1s, % | Age, Ma | ɛHf(t) | ± | tHf(DM), Ga | tHf(С), Ga |
| 16 | V-131 Spot 112 | 15.91587987 | 0.00104966 | 0.282614709 | 0.0000187291595458532 | 486.4 | 4.81 | 0.65 | 0.90 | 1.01 |
| 17 | V-131 Spot 114 | 6.74835692 | 0.00041342 | 0.281199350 | 0.0000184284675320196 | 1911.4 | -13.55 | 0.61 | 2.82 | 3.05 |
| 18 | V-131 Spot 127 | 7.29234447 | 0.00043260 | 0.281595882 | 0.0000175797933107533 | 1895.9 | 0.16 | 0.58 | 2.28 | 2.36 |
| ***Sample V-118: a metasandstone of the Ir-Galam Formation*** | | | | | | | | | | |
| 1 | V-118 Spot 1 | 6.13282847 | 0.00040766 | 0.281261157 | 0.0000198963296096569 | 2471.0 | 1.33 | 0.65 | 2.73 | 2.76 |
| 2 | V-118 Spot 6 | 23.14727050 | 0.00131421 | 0.281816358 | 0.0000236418429828305 | 433.8 | -24.65 | 0.83 | 2.03 | 2.45 |
| 3 | V-118 Spot 14 | 20.68086887 | 0.00154262 | 0.282022159 | 0.0000153374594094680 | 393.5 | -18.28 | 0.53 | 1.76 | 2.10 |
| 4 | V-118 Spot 22 | 8.79031578 | 0.00052419 | 0.281257898 | 0.0000196285456496698 | 1883.8 | -12.23 | 0.65 | 2.75 | 2.96 |
| 5 | V-118 Spot 24 | 21.40553441 | 0.00153989 | 0.282618135 | 0.0000175942881492614 | 416.1 | 3.29 | 0.61 | 0.91 | 1.03 |
| 6 | V-118 Spot 31 | 46.31506450 | 0.00261705 | 0.281633700 | 0.0000202081850478111 | 2064.0 | 2.25 | 0.67 | 2.37 | 2.39 |
| 7 | V-118 Spot 43 | 22.62098193 | 0.00165704 | 0.282341672 | 0.0000210878644841601 | 379.2 | -7.30 | 0.74 | 1.31 | 1.54 |
| 8 | V-118 Spot 46 | 10.76340539 | 0.00073729 | 0.282019534 | 0.0000153637698917091 | 382.2 | -18.40 | 0.53 | 1.72 | 2.10 |
| 9 | V-118 Spot 52 | 8.54127745 | 0.00061008 | 0.281980038 | 0.0000173834966242929 | 376.5 | -19.89 | 0.61 | 1.77 | 2.17 |
| 10 | V-118 Spot 55 | 15.17613596 | 0.00088006 | 0.281118123 | 0.0000183915738972714 | 2705.3 | 0.73 | 0.59 | 2.96 | 2.97 |
| 11 | V-118 Spot 57 | 5.27365712 | 0.00034017 | 0.281324951 | 0.0000138106823676254 | 1928.2 | -8.62 | 0.44 | 2.64 | 2.82 |
| 12 | V-118 Spot 78 | 54.88004114 | 0.00402072 | 0.282044221 | 0.0000271555041899024 | 391.0 | -18.19 | 0.95 | 1.85 | 2.10 |
| 13 | V-118 Spot 83 | 7.76326792 | 0.00067887 | 0.281893362 | 0.0000180369047058530 | 375.6 | -23.00 | 0.63 | 1.89 | 2.33 |
| 14 | V-118 Spot 100 | 6.58880178 | 0.00052668 | 0.281689120 | 0.0000172539001012739 | 1899.6 | 3.43 | 0.57 | 2.16 | 2.20 |
| 15 | V-118 Spot 109 | 15.18878415 | 0.00121286 | 0.281992523 | 0.0000207086235341301 | 367.4 | -19.80 | 0.72 | 1.78 | 2.16 |
| 16 | V-118 Spot 117 | 11.58285684 | 0.00070576 | 0.281545276 | 0.0000146301399908031 | 1868.7 | -2.59 | 0.47 | 2.37 | 2.47 |
| 17 | V-118 Spot 118 | 31.51728022 | 0.00187907 | 0.282447506 | 0.0000199467210069847 | 502.9 | -1.03 | 0.69 | 1.16 | 1.32 |
| 18 | V-118 Spot 121 | 7.36735354 | 0.00050370 | 0.282349707 | 0.0000170809320559853 | 570.5 | -2.56 | 0.59 | 1.26 | 1.45 |
| 19 | V-118 Spot 129 | 5.27354346 | 0.00032683 | 0.281418388 | 0.0000152863815848584 | 1840.0 | -7.27 | 0.50 | 2.52 | 2.68 |
| ***Sample V-138: a metasandstone of the Dzhalyak Formation*** | | | | | | | | | | |
| 1 | V-138 Spot 1 | 3.12998895 | 0.00022463 | 0.281474567 | 0.0000324067145097110 | 1905.6 | -3.66 | 1.10 | 2.43 | 2.55 |
| 2 | V-138 Spot 2 | 8.11701578 | 0.00051442 | 0.281553442 | 0.0000225525356278867 | 1905.6 | -1.24 | 0.76 | 2.35 | 2.43 |
| 3 | V-138 Spot 8 | 6.68721032 | 0.00042833 | 0.281548568 | 0.0000306763013000246 | 1902.8 | -1.36 | 1.04 | 2.35 | 2.44 |
| 4 | V-138 Spot 11 | 15.15396355 | 0.00100351 | 0.282373764 | 0.0000240300673084817 | 795.4 | 2.96 | 0.83 | 1.24 | 1.35 |
| 5 | V-138 Spot 15 | 6.94438583 | 0.00041972 | 0.281193765 | 0.0000203238772209260 | 1984.6 | -12.11 | 0.67 | 2.82 | 3.03 |
| 6 | V-138 Spot 16 | 34.24635368 | 0.00215613 | 0.282799506 | 0.0000262754088738693 | 511.0 | 11.51 | 0.92 | 0.66 | 0.69 |
| 7 | V-138 Spot 17 | 16.45234353 | 0.00101166 | 0.282468849 | 0.0000289086362454388 | 485.4 | -0.36 | 1.01 | 1.11 | 1.27 |
| 8 | V-138 Spot 31 | 18.44803772 | 0.00127823 | 0.282811864 | 0.0000274998138901299 | 508.1 | 12.18 | 0.96 | 0.63 | 0.65 |
| 9 | V-138 Spot 34 | 24.04451794 | 0.00148489 | 0.281631518 | 0.0000327504101919924 | 1979.9 | 1.91 | 1.12 | 2.30 | 2.34 |
| 10 | V-138 Spot 52 | 6.33342973 | 0.00044584 | 0.281466531 | 0.0000207543627988422 | 1906.6 | -4.21 | 0.69 | 2.46 | 2.58 |
| 11 | V-138 Spot 55 | 12.21795000 | 0.00076945 | 0.281601979 | 0.0000262072990405841 | 1986.8 | 1.97 | 0.88 | 2.30 | 2.34 |
| 12 | V-138 Spot 62 | 12.39134843 | 0.00080824 | 0.281130784 | 0.0000267903024217843 | 2507.6 | -3.15 | 0.89 | 2.94 | 3.00 |
| 13 | V-138 Spot 69 | 9.50236633 | 0.00060565 | 0.281531206 | 0.0000275321559098811 | 1985.5 | -0.35 | 0.93 | 2.38 | 2.45 |
| 14 | V-138 Spot 81 | 2.96506122 | 0.00022650 | 0.281554053 | 0.0000122410007825890 | 1906.9 | -0.81 | 0.39 | 2.33 | 2.41 |
| 15 | V-138 Spot 87 | 9.91318705 | 0.00068503 | 0.281563396 | 0.0000344610603166588 | 1974.2 | 0.43 | 1.18 | 2.34 | 2.41 |
| 16 | V-138 Spot 97 | 6.63300750 | 0.00043326 | 0.281457856 | 0.0000206786466847477 | 1901.8 | -4.61 | 0.69 | 2.47 | 2.60 |
| 17 | V-138 Spot 99 | 7.13093712 | 0.00042945 | 0.281100878 | 0.0000238218903443337 | 2493.3 | -3.90 | 0.79 | 2.95 | 3.03 |
| 18 | V-138 Spot 107 | 13.38108369 | 0.00087799 | 0.282676355 | 0.0000303573846145317 | 479.6 | 6.91 | 1.06 | 0.81 | 0.90 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Tabl. S2 (the end) | | | | | | | | | | |
| No | Analysis | (176Yb + 176Lu) / 176Hf, (%) | 176Lu/177Hf | 176Hf/177Hf | ±1s, % | Age, Ma | ɛHf(t) | ± | tHf(DM), Ga | tHf(С), Ga |
| 19 | V-138 Spot 123 | 39.27527284 | 0.00239333 | 0.282580037 | 0.0000224695798484449 | 799.0 | 9.60 | 0.78 | 0.99 | 1.01 |
| 20 | V-138 Spot 129 | 36.56565824 | 0.00234951 | 0.282406765 | 0.0000311742395545938 | 829.8 | 4.13 | 1.09 | 1.24 | 1.32 |

Note. The mantle model age tHf(DM), the crustal model age tHf(C).