Table S1. Paleomagnetic data from ~775 Ma mafic dikes in the Lulong region

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Slat | Slong | Trend/Dip |  |  | *D* | *I* |  | *α*95 | Plat | Plong | dp | dm |
| ID | Sites | (°N) | (°E) | (°) | n | N | (°) | (°) | *k* | (°) | (°N) | (°E) | (°) | (°) |
| LL04\* | 17LL10 | 39.912 | 118.994 | 65/84SES | 7 | 10 | 59.5 | 1.6 | 50.3 | 8.6 | 23.5 | 229.1 | 4.3 | 8.6 |
| LL05\* | 17LL0102 | 39.864 | 118.893 | 55/86SES | 15 | 20 | 51.8 | -27 | 81.7 | 4.3 | 17.6 | 245.9 | 2.5 | 4.7 |
| LL06 | 17LL11 | 39.909 | 118.968 | 63/88SES | 18 | 20 | 52.7 | -20.5 | 90.5 | 3.7 | 19.8 | 242.8 | 2.0 | 3.9 |
| LL07 | 18LL0102 | 39.917 | 118.973 | 66/83SES | 22 | 22 | 55.3 | -19.3 | 93.3 | 3.2 | 18.6 | 240.3 | 1.7 | 3.3 |
| LL08 | 18LL0405 | 39.929 | 118.996 | 67/79SES | 25 | 28 | 38.5 | 3.3 | 53.8 | 4 | 38.2 | 246.6 | 2.0 | 4.0 |
| LL09 | 18LL0607 | 39.924 | 119.008 | 63/85SES | 26 | 37 | 50.5 | -1.9 | 171.5 | 2.2 | 28.5 | 237.6 | 1.1 | 2.2 |
| LL10 | 19LL01 | 40.437 | 119.918 | 75/80SES | 5 | 12 | 216.5 | 7.3 | 67.5 | 9.4 | -34.7 | 73.7 | 4.8  | 9.5  |
| LL11 | 19LL0607 | 40.449 | 119.948 | 73/85NWN | 14 | 17 | 223.1 | 25.6 | 64.5 | 5 | -22.9 | 73.8 | 2.9  | 5.4  |
| LL12 | 19LL0809 | 40.456 | 119.919 | 73/77NWN | 10 | 21 | 222.5 | 26.2 | 28.3 | 9.2 | -22.9 | 74.5 | 5.4  | 10.0  |
| LL13 | 19LL1415 | 40.331 | 119.241 | 70/83NWN | 15 | 21 | 32.2 | 22.4 | 145.5 | 3.2 | 49.7 | 245.5 | 1.8  | 3.4  |
| LL14 | 19LL1819 | 40.339 | 119.250 | 75/80NWN | 7 | 24 | 47.1 | 18.9 | 24.4 | 12.5 | 38.4 | 232.2 | 6.8  | 13.0  |
| LL15 | 19LL2627 | 40.233 | 119.184 | 72/87SES | 16 | 21 | 53.1 | -3 | 61.7 | 4.7 | 26.2  | 236.2  | 2.4  | 4.7  |
| LL16 | 19LL3031 | 40.141 | 119.838 | 74/85SES | 19 | 20 | 37.7 | -14.9 | 73.5 | 3.9 | 31.0  | 254.9  | 2.1  | 4.0  |
| LL17 | 19LL3233 | 40.146 | 119.871 | 70/84SES | 20 | 23 | 43.2 | -11.6 | 288.8 | 1.9 | 29.2  | 248.6  | 1.0  | 1.9  |
| LL18 | 19LL3436 | 40.131 | 119.874 | 75/88SES | 18 | 26 | 42.4 | -10.2 | 84.6 | 3.8 | 30.3  | 248.8  | 1.9  | 3.8  |
| **Mean** |  | **15** |  |  | **237** | **322** | **225.8** | **8.3** | **22.6** | **8.3** | **-29.0** | **64.7** | **K = 51.3, A95 = 5.4** |

Note: Slat/Slong, sample locality latitude/longitude; n/N, number of samples used for the mean directions/number demagnetized; Dg/Ig, declination/inclination in the geographic coordinates; *D*/*I*, declination/inclination; *k*, fisher precision parameter for direction; *α*95/A95, radius of circle of 95% confidence about the direction/pole; Plat/Plong, Latitude/Longitude of VGP in the stratigraphic coordinates. dm/dp, semi-axes of elliptical error around the pole at a probability of 95%. All the 15 VGPs jointly pass a reversal test (McFadden and McElhinny, 1990), class C, with a critical angle of 12.9°, and the angular difference is 10.7°.

\* Paleomagnetic results from Ding et al. (2020).

Ding, J., et al., 2021, North China craton: The conjugate margin for northwestern Laurentia in Rodinia: Geology, v. 49, https://doi.org/10.1130/G48483.1