Supplementary Table S1. Representative plagioclase compositions of the Jiacha Early Jurassic adakitic intrusions.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Analysis | SiO2 | TiO2 | Al2O3 | Cr2O3 | FeO | MnO | NiO | CaO | Na2O | K2O | MgO | Total |  | An | Ab | Or |
| quartz diorite: GD14-90-2 | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 59.17 | 0.01 | 25.41 | 0.03 | 0.06 | 0.00 | 0.03 | 7.98 | 6.63 | 0.24 | 0.00 | 99.57 |  | 39 | 59 | 1 |
| 2 | 59.08 | 0.00 | 25.32 | 0.00 | 0.08 | 0.00 | 0.00 | 8.36 | 6.35 | 0.18 | 0.01 | 99.38 |  | 42 | 57 | 1 |
| 3 | 58.53 | 0.01 | 25.53 | 0.00 | 0.07 | 0.00 | 0.00 | 8.49 | 6.35 | 0.15 | 0.00 | 99.12 |  | 42 | 57 | 1 |
| 4 | 58.92 | 0.00 | 25.64 | 0.03 | 0.12 | 0.01 | 0.00 | 8.35 | 6.36 | 0.13 | 0.00 | 99.56 |  | 42 | 57 | 1 |
| 5 | 61.03 | 0.01 | 24.41 | 0.02 | 0.13 | 0.01 | 0.03 | 6.51 | 7.47 | 0.27 | 0.00 | 99.90 |  | 32 | 66 | 2 |
| 6 | 58.32 | 0.00 | 25.66 | 0.00 | 0.10 | 0.00 | 0.05 | 8.43 | 6.45 | 0.23 | 0.00 | 99.24 |  | 41 | 57 | 1 |
| 7 | 58.52 | 0.00 | 25.61 | 0.00 | 0.06 | 0.01 | 0.00 | 8.50 | 6.26 | 0.21 | 0.00 | 99.17 |  | 42 | 56 | 1 |
| 8 | 58.47 | 0.00 | 25.73 | 0.00 | 0.09 | 0.00 | 0.01 | 8.35 | 6.33 | 0.23 | 0.00 | 99.21 |  | 42 | 57 | 1 |
| 9 | 58.25 | 0.02 | 25.60 | 0.00 | 0.09 | 0.00 | 0.02 | 8.81 | 6.26 | 0.23 | 0.01 | 99.27 |  | 43 | 55 | 1 |
| 10 | 58.93 | 0.03 | 25.48 | 0.04 | 0.10 | 0.01 | 0.00 | 7.94 | 6.58 | 0.25 | 0.01 | 99.37 |  | 39 | 59 | 1 |
| 11 | 59.70 | 0.01 | 24.99 | 0.02 | 0.09 | 0.03 | 0.00 | 7.50 | 6.63 | 0.20 | 0.00 | 99.16 |  | 38 | 61 | 1 |
| 12 | 58.98 | 0.00 | 25.20 | 0.00 | 0.10 | 0.00 | 0.00 | 8.23 | 6.57 | 0.23 | 0.00 | 99.31 |  | 40 | 58 | 1 |
| 13 | 59.61 | 0.01 | 25.11 | 0.00 | 0.10 | 0.01 | 0.00 | 7.66 | 6.60 | 0.24 | 0.00 | 99.33 |  | 39 | 60 | 1 |
| 14 | 58.78 | 0.00 | 25.46 | 0.00 | 0.06 | 0.04 | 0.05 | 8.24 | 6.38 | 0.15 | 0.00 | 99.17 |  | 41 | 58 | 1 |
| 15 | 60.93 | 0.03 | 24.37 | 0.00 | 0.10 | 0.02 | 0.00 | 6.32 | 7.31 | 0.20 | 0.00 | 99.29 |  | 32 | 67 | 1 |
| 16 | 58.95 | 0.00 | 25.44 | 0.01 | 0.10 | 0.00 | 0.01 | 8.10 | 6.37 | 0.24 | 0.00 | 99.23 |  | 41 | 58 | 1 |
| 17 | 58.26 | 0.00 | 25.77 | 0.00 | 0.18 | 0.02 | 0.00 | 8.62 | 6.19 | 0.25 | 0.00 | 99.30 |  | 43 | 56 | 1 |
| 18 | 58.80 | 0.04 | 25.47 | 0.01 | 0.08 | 0.00 | 0.01 | 8.16 | 6.65 | 0.13 | 0.00 | 99.37 |  | 40 | 59 | 1 |
| 19 | 59.47 | 0.00 | 25.14 | 0.00 | 0.09 | 0.00 | 0.01 | 7.49 | 6.73 | 0.19 | 0.00 | 99.12 |  | 38 | 61 | 1 |
| 20 | 57.00 | 0.03 | 26.79 | 0.00 | 0.13 | 0.00 | 0.00 | 9.86 | 5.43 | 0.11 | 0.00 | 99.33 |  | 50 | 50 | 1 |
| 21 | 57.93 | 0.00 | 26.65 | 0.01 | 0.20 | 0.03 | 0.01 | 8.58 | 6.16 | 0.15 | 0.00 | 99.71 |  | 43 | 56 | 1 |
| mafic enclave: GD14-90-3 | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 22 | 58.06 | 0.00 | 26.49 | 0.00 | 0.04 | 0.00 | 0.00 | 9.49 | 5.61 | 0.20 | 0.00 | 99.89 |  | 48 | 51 | 1 |
| 23 | 58.01 | 0.00 | 26.04 | 0.01 | 0.09 | 0.00 | 0.00 | 9.70 | 5.66 | 0.18 | 0.00 | 99.70 |  | 48 | 51 | 1 |
| 24 | 52.60 | 0.00 | 29.54 | 0.03 | 0.11 | 0.00 | 0.00 | 13.66 | 3.50 | 0.10 | 0.00 | 99.53 |  | 68 | 32 | 1 |
| 25 | 58.80 | 0.01 | 25.53 | 0.00 | 0.08 | 0.02 | 0.01 | 8.78 | 6.24 | 0.24 | 0.00 | 99.71 |  | 43 | 55 | 1 |
| 26 | 57.75 | 0.00 | 26.36 | 0.00 | 0.10 | 0.00 | 0.00 | 9.85 | 5.50 | 0.21 | 0.00 | 99.76 |  | 49 | 50 | 1 |
| 27 | 58.81 | 0.00 | 25.65 | 0.00 | 0.07 | 0.00 | 0.06 | 8.66 | 6.26 | 0.26 | 0.00 | 99.78 |  | 43 | 56 | 2 |
| 28 | 59.16 | 0.00 | 25.42 | 0.00 | 0.04 | 0.00 | 0.00 | 8.48 | 6.45 | 0.15 | 0.00 | 99.71 |  | 42 | 57 | 1 |
| 29 | 57.86 | 0.00 | 26.44 | 0.05 | 0.11 | 0.00 | 0.01 | 9.79 | 5.53 | 0.16 | 0.01 | 99.97 |  | 49 | 50 | 1 |
| 30 | 59.14 | 0.00 | 25.44 | 0.00 | 0.31 | 0.00 | 0.00 | 8.85 | 5.94 | 0.23 | 0.00 | 99.91 |  | 45 | 54 | 1 |
| 31 | 58.45 | 0.02 | 25.98 | 0.00 | 0.15 | 0.01 | 0.02 | 9.34 | 5.72 | 0.23 | 0.00 | 99.92 |  | 47 | 52 | 1 |
| 32 | 58.38 | 0.03 | 25.85 | 0.00 | 0.08 | 0.00 | 0.00 | 9.46 | 5.71 | 0.18 | 0.00 | 99.70 |  | 47 | 52 | 1 |
| 33 | 60.18 | 0.01 | 24.71 | 0.05 | 0.06 | 0.00 | 0.01 | 7.74 | 6.54 | 0.17 | 0.01 | 99.47 |  | 39 | 60 | 1 |
| 34 | 58.38 | 0.01 | 25.86 | 0.00 | 0.23 | 0.00 | 0.02 | 8.97 | 5.95 | 0.20 | 0.00 | 99.63 |  | 45 | 54 | 1 |
| 35 | 57.74 | 0.00 | 26.28 | 0.00 | 0.13 | 0.01 | 0.00 | 9.37 | 5.84 | 0.14 | 0.00 | 99.50 |  | 47 | 53 | 1 |
| 36 | 59.22 | 0.00 | 25.29 | 0.00 | 0.14 | 0.00 | 0.01 | 8.37 | 6.37 | 0.20 | 0.00 | 99.58 |  | 42 | 57 | 1 |
| 37 | 59.09 | 0.00 | 25.25 | 0.00 | 0.05 | 0.00 | 0.00 | 8.49 | 6.45 | 0.20 | 0.02 | 99.53 |  | 42 | 57 | 1 |
| tonalite: GD14-102-1 | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 40 | 61.56 | 0.00 | 24.16 | 0.00 | 0.13 | 0.02 | 0.00 | 0.01 | 6.80 | 7.61 | 0.16 | 100.46 |  | 33 | 66 | 1 |
| 41 | 59.29 | 0.00 | 25.48 | 0.04 | 0.16 | 0.00 | 0.01 | 0.00 | 7.08 | 7.10 | 0.17 | 99.32 |  | 35 | 64 | 1 |
| 42 | 56.86 | 0.00 | 26.76 | 0.03 | 0.19 | 0.00 | 0.00 | 0.00 | 9.08 | 6.04 | 0.27 | 99.22 |  | 45 | 54 | 2 |
| 43 | 57.80 | 0.01 | 26.05 | 0.00 | 0.23 | 0.00 | 0.00 | 0.00 | 8.26 | 6.52 | 0.27 | 99.13 |  | 41 | 58 | 2 |
| 44 | 58.64 | 0.00 | 26.19 | 0.00 | 0.17 | 0.00 | 0.03 | 0.01 | 9.28 | 5.87 | 0.30 | 100.48 |  | 46 | 52 | 2 |
| 45 | 57.45 | 0.02 | 26.60 | 0.00 | 0.21 | 0.02 | 0.00 | 0.00 | 9.71 | 5.74 | 0.23 | 99.96 |  | 48 | 51 | 1 |
| 46 | 57.94 | 0.04 | 26.23 | 0.01 | 0.10 | 0.00 | 0.00 | 0.00 | 8.04 | 6.73 | 0.27 | 99.37 |  | 39 | 59 | 2 |
| 47 | 60.13 | 0.00 | 25.38 | 0.02 | 0.03 | 0.01 | 0.00 | 0.01 | 7.87 | 6.98 | 0.09 | 100.52 |  | 38 | 61 | 1 |
| 48 | 57.10 | 0.00 | 26.67 | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 8.87 | 6.30 | 0.20 | 99.38 |  | 43 | 56 | 1 |
| 49 | 58.77 | 0.00 | 25.88 | 0.00 | 0.17 | 0.00 | 0.00 | 0.00 | 9.08 | 6.26 | 0.22 | 100.38 |  | 44 | 55 | 1 |
| 50 | 58.57 | 0.03 | 26.00 | 0.00 | 0.12 | 0.00 | 0.01 | 0.00 | 9.33 | 6.08 | 0.15 | 100.31 |  | 45 | 54 | 1 |
| 51 | 58.51 | 0.00 | 26.18 | 0.00 | 0.19 | 0.00 | 0.00 | 0.00 | 8.98 | 6.24 | 0.20 | 100.31 |  | 44 | 55 | 1 |
| 52 | 56.94 | 0.02 | 26.99 | 0.00 | 0.16 | 0.00 | 0.01 | 0.00 | 9.07 | 6.22 | 0.13 | 99.55 |  | 44 | 55 | 1 |
| 53 | 58.58 | 0.01 | 25.98 | 0.00 | 0.16 | 0.00 | 0.00 | 0.00 | 9.15 | 6.09 | 0.23 | 100.20 |  | 45 | 54 | 1 |
| 54 | 57.03 | 0.01 | 27.12 | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | 8.92 | 6.17 | 0.20 | 99.58 |  | 44 | 55 | 1 |
| 55 | 60.82 | 0.02 | 24.65 | 0.01 | 0.17 | 0.02 | 0.02 | 0.00 | 7.38 | 7.19 | 0.21 | 100.50 |  | 36 | 63 | 1 |
| 56 | 60.70 | 0.00 | 24.75 | 0.01 | 0.12 | 0.00 | 0.00 | 0.00 | 7.40 | 7.11 | 0.18 | 100.28 |  | 36 | 63 | 1 |
| tonalite: GD14-101-1 | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 57 | 59.17 | 0.00 | 25.77 | 0.00 | 0.07 | 0.02 | 0.00 | 0.00 | 8.85 | 6.46 | 0.14 | 100.48 |  | 43 | 56 | 1 |
| 58 | 59.45 | 0.00 | 25.35 | 0.00 | 0.13 | 0.01 | 0.00 | 0.00 | 8.23 | 6.61 | 0.11 | 99.89 |  | 41 | 59 | 1 |
| 59 | 60.29 | 0.00 | 24.68 | 0.01 | 0.12 | 0.01 | 0.00 | 0.00 | 7.89 | 6.87 | 0.16 | 100.03 |  | 38 | 61 | 1 |
| 60 | 60.65 | 0.03 | 24.66 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | 7.57 | 7.18 | 0.19 | 100.40 |  | 36 | 63 | 1 |
| 61 | 62.32 | 0.00 | 23.55 | 0.00 | 0.16 | 0.00 | 0.01 | 0.00 | 6.38 | 7.70 | 0.21 | 100.33 |  | 31 | 68 | 1 |
| 62 | 61.73 | 0.00 | 24.02 | 0.04 | 0.06 | 0.00 | 0.00 | 0.02 | 6.52 | 7.56 | 0.12 | 100.08 |  | 32 | 67 | 1 |
| 63 | 57.99 | 0.00 | 26.71 | 0.00 | 0.10 | 0.00 | 0.03 | 0.00 | 8.53 | 6.38 | 0.16 | 99.90 |  | 42 | 57 | 1 |
| 64 | 60.42 | 0.02 | 24.93 | 0.02 | 0.15 | 0.01 | 0.03 | 0.02 | 7.90 | 6.78 | 0.20 | 100.46 |  | 39 | 60 | 1 |