

附表 1 黄山南岩体主量元素成分(%)

Table 1 The abundances of major elements in whole-rock from the Huangshannan intrusion (%)

| 样号 | HSN-144 | HSN-298 | HSN-349 | HSN-321.5 | HSN-718 | HSN-950 | HSN-365 | HSN-373 | HSN-467 | HSN-539 | HSN-607 | HSN-642 | HSN-850 | HSN-195 | HSN-386 | HSN-54 | HSN-768 | HSN-897 |
|--------------------------------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|-----------|---------|---------|---------|--------|---------|---------|
| 岩性 | 方辉橄榄岩 | | | 二辉橄榄岩 | | | 橄榄二辉岩 | | | | | (橄榄)辉长苏长岩 | | | 闪长岩 | | | |
| SiO ₂ | 45.6 | 42.8 | 42.5 | 44.3 | 45.7 | 43.5 | 50.5 | 50.8 | 52.0 | 51.9 | 49.0 | 50.9 | 48.9 | 44.4 | 50.1 | 48.9 | 54.7 | 57.4 |
| TiO ₂ | 0.36 | 0.22 | 0.19 | 0.40 | 0.40 | 0.21 | 0.48 | 0.43 | 0.26 | 0.29 | 0.21 | 0.25 | 0.45 | 2.74 | 1.41 | 2.01 | 1.30 | 1.41 |
| Al ₂ O ₃ | 3.07 | 2.42 | 2.75 | 3.17 | 5.77 | 4.56 | 3.90 | 5.11 | 4.03 | 3.97 | 3.13 | 3.14 | 4.84 | 17.2 | 19.5 | 17.3 | 17.4 | 17.2 |
| Fe ₂ O ₃ | 15.8 | 14.7 | 13.2 | 13.0 | 10.2 | 10.4 | 11.6 | 11.4 | 11.9 | 10.7 | 11.3 | 10.0 | 10.8 | 12.4 | 11.3 | 10.5 | 9.07 | 7.88 |
| MnO | 0.22 | 0.17 | 0.16 | 0.17 | 0.15 | 0.13 | 0.17 | 0.21 | 0.19 | 0.18 | 0.18 | 0.17 | 0.17 | 0.13 | 0.17 | 0.14 | 0.13 | 0.09 |
| MgO | 29.3 | 34.1 | 33.3 | 32.8 | 28.8 | 32.3 | 25.7 | 22.0 | 24.8 | 27.1 | 31.1 | 27.4 | 26.6 | 8.22 | 3.46 | 6.62 | 4.05 | 2.80 |
| CaO | 3.69 | 1.54 | 1.47 | 1.82 | 2.99 | 1.97 | 2.07 | 4.24 | 3.77 | 2.93 | 1.79 | 5.58 | 2.90 | 10.3 | 6.48 | 9.28 | 5.24 | 5.05 |
| Na ₂ O | 0.26 | 0.08 | 0.10 | 0.16 | 0.71 | 0.26 | 0.28 | 0.68 | 0.49 | 0.42 | 0.29 | 0.32 | 0.40 | 3.19 | 5.08 | 2.98 | 4.79 | 4.29 |
| K ₂ O | 0.04 | 0.05 | 0.02 | 0.12 | 0.60 | 0.12 | 0.06 | 1.58 | 0.11 | 0.30 | 0.27 | 0.08 | 0.30 | 0.47 | 1.34 | 0.67 | 0.97 | 1.33 |
| P ₂ O ₅ | 0.01 | 0.02 | 0.02 | 0.02 | 0.04 | 0.06 | 0.02 | 0.02 | 0.01 | 0.02 | 0.02 | 0.01 | 0.02 | 0.02 | 0.53 | 0.13 | 0.42 | 0.48 |
| LOI | 1.40 | 2.95 | 5.28 | 3.77 | 4.29 | 6.14 | 4.35 | 2.58 | 1.59 | 1.19 | 1.78 | 1.40 | 3.74 | 0.98 | 1.00 | 0.99 | 1.00 | 1.19 |
| Total | 99.76 | 99 | 99.03 | 99.62 | 99.59 | 99.64 | 99.08 | 99 | 99.17 | 99.02 | 99.11 | 99.11 | 99.16 | 100.07 | 100.34 | 99.55 | 99.08 | 99.11 |

附表 2 黄山南岩体微量元素成分($\times 10^{-6}$)Table 2 The abundances of trace elements in whole-rock from the Huangshannan intrusion ($\times 10^{-6}$)

| 样号 | HSN-144 | HSN-298 | HSN-349 | HSN-691 | HSN-321.5 | HSN-718 | HSN-918 | HSN-950 | HSN-365 | HSN-373 | HSN-467 | HSN-513 |
|----|---------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|
| 岩性 | 方辉橄榄岩 | | | | 二辉橄榄岩 | | | | 橄榄二辉岩 | | | |
| Sc | 23.8 | 12.1 | 9.10 | 16.9 | 12.6 | 14.5 | 11.4 | 9.82 | 18.9 | 18.3 | 24.4 | 19.1 |
| V | 176.4 | 52.7 | 42.3 | 91.5 | 70.9 | 70.1 | 57.1 | 46.6 | 81.5 | 81.1 | 99.5 | 76.7 |
| Cr | 2429 | 2621 | 2084 | 2654 | 2916 | 1354 | 2369 | 3097 | 2145 | 2144 | 1882 | 2183 |
| Mn | 1728 | 1399 | 1215 | 1268 | 1348 | 1139 | 1167 | 1069 | 1308 | 1590 | 1499 | 1378 |
| Co | 199 | 249 | 196 | 156 | 172 | 127 | 125 | 145 | 189 | 90.3 | 181 | 158 |
| Ni | 1627 | 6278 | 4010 | 1630 | 1990 | 1547 | 1418 | 2805 | 5949 | 1505 | 2023 | 2094 |
| Cu | 118 | 1688 | 439 | 144 | 100 | 135 | 148 | 353 | 1652 | 34.5 | 587 | 596 |
| Zn | 118 | 97.0 | 113 | 84.6 | 106 | 71.0 | 72.6 | 70.9 | 83.1 | 104 | 81.3 | 74.6 |
| Ga | 5.40 | 3.61 | 4.11 | 6.71 | 4.92 | 6.71 | 5.96 | 5.29 | 6.10 | 7.64 | 5.71 | 5.18 |
| Ge | 3.43 | 3.07 | 2.65 | 2.67 | 2.81 | 2.22 | 2.47 | 2.48 | 2.80 | 2.77 | 2.79 | 2.62 |
| Cs | 0.17 | 0.25 | 0.08 | 1.55 | 0.28 | 2.61 | 0.75 | 0.46 | 0.42 | 4.88 | 0.24 | 0.77 |
| Rb | 1.12 | 1.66 | 0.71 | 10.55 | 3.16 | 11.56 | 4.53 | 3.29 | 2.44 | 55.33 | 2.46 | 10.50 |
| Sr | 36.0 | 19.7 | 35.0 | 73.0 | 29.8 | 92.4 | 28.9 | 55.1 | 16.5 | 25.7 | 77.5 | 57.6 |
| Ba | 11.6 | 12.4 | 5.08 | 50.5 | 25.8 | 58.8 | 25.9 | 28.9 | 6.28 | 203 | 20.6 | 59.2 |
| Nb | 0.40 | 0.69 | 0.77 | 1.54 | 1.04 | 1.35 | 1.73 | 1.66 | 1.52 | 2.23 | 0.62 | 0.95 |
| Ta | 0.19 | 0.14 | 0.16 | 0.23 | 0.15 | 0.16 | 0.31 | 0.18 | 0.13 | 0.18 | 0.17 | 0.18 |
| Zr | 16.2 | 18.0 | 6.16 | 32.4 | 19.8 | 20.9 | 20.4 | 41.3 | 19.4 | 37.4 | 12.9 | 24.9 |
| Hf | 0.63 | 0.51 | 0.26 | 1.04 | 0.64 | 0.79 | 0.87 | 1.14 | 0.74 | 1.17 | 0.46 | 0.69 |
| Ti | 2012 | 1280 | 1014 | 2323 | 2308 | 2373 | 1119 | 1212 | 2805 | 2518 | 1480 | 1782 |
| La | 1.06 | 1.59 | 1.67 | 3.35 | 1.82 | 2.85 | 3.08 | 3.70 | 1.94 | 2.23 | 1.55 | 2.20 |
| Ce | 3.04 | 3.57 | 4.19 | 7.69 | 4.52 | 6.99 | 6.93 | 8.39 | 5.62 | 8.45 | 3.94 | 5.07 |
| Pr | 0.53 | 0.49 | 0.62 | 1.09 | 0.68 | 1.03 | 0.96 | 1.14 | 0.90 | 1.56 | 0.58 | 0.71 |
| Nd | 2.95 | 2.23 | 2.70 | 4.90 | 3.23 | 4.88 | 3.98 | 4.80 | 4.46 | 8.00 | 2.62 | 3.13 |
| Sm | 1.00 | 0.57 | 0.63 | 1.25 | 0.89 | 1.27 | 1.07 | 1.04 | 1.22 | 2.11 | 0.69 | 0.78 |
| Eu | 0.25 | 0.18 | 0.14 | 0.37 | 0.27 | 0.42 | 0.28 | 0.31 | 0.30 | 0.64 | 0.22 | 0.22 |
| Gd | 1.24 | 0.64 | 0.63 | 1.34 | 0.99 | 1.35 | 1.13 | 0.99 | 1.36 | 2.04 | 0.75 | 0.83 |
| Tb | 0.24 | 0.11 | 0.11 | 0.24 | 0.18 | 0.23 | 0.20 | 0.17 | 0.24 | 0.34 | 0.14 | 0.15 |
| Dy | 1.55 | 0.70 | 0.65 | 1.46 | 1.09 | 1.45 | 1.25 | 0.99 | 1.49 | 2.02 | 0.89 | 0.94 |
| Ho | 0.34 | 0.15 | 0.13 | 0.31 | 0.23 | 0.31 | 0.27 | 0.21 | 0.32 | 0.42 | 0.20 | 0.21 |
| Er | 0.96 | 0.41 | 0.38 | 0.86 | 0.64 | 0.84 | 0.75 | 0.60 | 0.87 | 1.11 | 0.55 | 0.58 |
| Tm | 0.14 | 0.06 | 0.06 | 0.12 | 0.09 | 0.12 | 0.12 | 0.09 | 0.13 | 0.16 | 0.09 | 0.09 |
| Yb | 0.98 | 0.42 | 0.36 | 0.81 | 0.61 | 0.80 | 0.80 | 0.61 | 0.84 | 1.03 | 0.60 | 0.59 |
| Lu | 0.15 | 0.07 | 0.06 | 0.12 | 0.09 | 0.12 | 0.13 | 0.10 | 0.13 | 0.16 | 0.10 | 0.10 |
| Y | 9.07 | 4.04 | 3.79 | 8.35 | 6.16 | 8.21 | 7.97 | 5.92 | 8.36 | 11.6 | 5.31 | 5.57 |
| U | 0.08 | 0.15 | 0.13 | 0.37 | 0.20 | 0.30 | 1.16 | 0.39 | 0.15 | 0.14 | 0.08 | 0.26 |
| Th | 0.25 | 0.48 | 0.67 | 1.32 | 0.64 | 0.84 | 2.61 | 1.19 | 0.51 | 0.43 | 0.23 | 0.72 |
| Pb | 0.57 | 1.87 | 1.16 | 2.78 | 1.39 | 2.67 | 1.10 | 1.92 | 2.74 | 2.36 | 0.97 | 2.25 |

附表 2 (续)

Table 2 (continued)

| 样号 | HSN-539 | HSN-607 | HSN-642 | HSN-850 | HSN-217 | HSN-386 | HSN-578 | HSN-666 | HSN-705 | HSN-768 | HSN-897 |
|----|---------|---------|---------|---------|-----------|---------|---------|---------|---------|---------|---------|
| 岩性 | 橄榄二辉岩 | | | | (橄榄)辉长苏长岩 | | | | | | 闪长岩 |
| Sc | 22.3 | 17.2 | 30.0 | 21.6 | 23.5 | 21.0 | 17.0 | 20.3 | 26.9 | 17.0 | 16.7 |
| V | 89.3 | 73.8 | 138 | 125 | 187 | 64.6 | 49.8 | 121 | 225 | 84.9 | 81.1 |
| Cr | 2303 | 2849 | 2255 | 2127 | 217 | 57.4 | 39.4 | 1027 | 52.9 | 118 | 23.6 |
| Mn | 1387 | 1336 | 1264 | 1285 | 1086 | 1298 | 1148 | 792 | 794 | 981 | 674 |
| Co | 156 | 141 | 148 | 139 | 107 | 85.5 | 92.5 | 97.5 | 93.3 | 126 | 109 |
| Ni | 1928 | 1843 | 894 | 1059 | 199 | 46.1 | 40.8 | 603 | 39.8 | 204 | 27.5 |
| Cu | 577 | 214 | 64.6 | 117 | 66.1 | 37.7 | 19.6 | 74.4 | 34.0 | 226 | 324 |
| Zn | 76.7 | 77.9 | 64.5 | 77.6 | 87.2 | 121 | 135 | 85.9 | 75.5 | 94.8 | 79.1 |
| Ga | 5.52 | 4.55 | 4.40 | 6.44 | 19.2 | 24.3 | 25.7 | 16.0 | 20.4 | 21.2 | 19.3 |
| Ge | 2.54 | 2.79 | 2.59 | 2.78 | 2.75 | 2.94 | 2.82 | 2.61 | 2.30 | 2.65 | 2.41 |
| Cs | 0.41 | 1.26 | 0.22 | 1.04 | 1.74 | 1.24 | 1.80 | 7.07 | 1.19 | 2.85 | 3.79 |
| Rb | 8.88 | 8.80 | 1.90 | 8.35 | 14.6 | 48.6 | 67.3 | 106 | 18.9 | 36.9 | 50.8 |
| Sr | 60.2 | 34.5 | 37.6 | 36.8 | 365 | 592 | 567 | 95.8 | 548 | 449 | 423 |
| Ba | 38.0 | 33.4 | 14.6 | 37.0 | 110 | 680 | 747 | 518 | 170 | 293 | 313 |
| Nb | 0.81 | 0.69 | 0.40 | 1.48 | 4.70 | 9.90 | 11.7 | 5.96 | 4.63 | 11.8 | 13.4 |
| Ta | 0.18 | 0.10 | 0.15 | 0.20 | 0.48 | 0.58 | 0.61 | 0.44 | 0.45 | 0.98 | 0.67 |
| Zr | 22.3 | 14.4 | 11.8 | 23.4 | 72.2 | 561 | 563 | 254.5 | 68.5 | 392 | 364 |
| Hf | 0.67 | 0.46 | 0.40 | 0.84 | 2.55 | 12.1 | 12.6 | 6.08 | 2.53 | 8.79 | 8.36 |
| Ti | 1602 | 1128 | 1326 | 2696 | 8224 | 8044 | 7038 | 5960 | 10227 | 7443 | 8538 |
| La | 1.96 | 1.31 | 0.96 | 2.40 | 7.88 | 11.5 | 15.3 | 10.9 | 8.05 | 19.2 | 16.9 |
| Ce | 4.81 | 3.37 | 2.39 | 6.04 | 21.6 | 33.0 | 39.2 | 24.7 | 22.6 | 46.4 | 41.5 |
| Pr | 0.67 | 0.53 | 0.38 | 0.94 | 3.49 | 5.56 | 5.89 | 3.54 | 3.74 | 6.41 | 5.79 |
| Nd | 2.84 | 2.54 | 1.87 | 4.52 | 17.8 | 28.1 | 28.5 | 16.6 | 19.2 | 28.7 | 25.7 |
| Sm | 0.70 | 0.72 | 0.57 | 1.24 | 4.97 | 7.23 | 7.00 | 4.31 | 5.43 | 6.62 | 6.07 |
| Eu | 0.22 | 0.15 | 0.18 | 0.35 | 1.76 | 2.50 | 2.35 | 1.65 | 1.51 | 1.86 | 1.73 |
| Gd | 0.74 | 0.78 | 0.67 | 1.36 | 5.46 | 7.28 | 7.21 | 4.59 | 5.63 | 6.39 | 6.12 |
| Tb | 0.13 | 0.15 | 0.13 | 0.24 | 0.96 | 1.14 | 1.20 | 0.75 | 0.96 | 0.94 | 1.01 |
| Dy | 0.85 | 0.93 | 0.85 | 1.50 | 5.89 | 6.37 | 7.29 | 4.46 | 5.82 | 5.06 | 5.87 |
| Ho | 0.19 | 0.20 | 0.19 | 0.32 | 1.21 | 1.26 | 1.55 | 0.91 | 1.18 | 0.92 | 1.22 |
| Er | 0.55 | 0.56 | 0.52 | 0.88 | 3.25 | 3.17 | 4.31 | 2.35 | 3.07 | 2.24 | 3.19 |
| Tm | 0.09 | 0.09 | 0.08 | 0.13 | 0.45 | 0.43 | 0.63 | 0.32 | 0.42 | 0.30 | 0.44 |
| Yb | 0.58 | 0.56 | 0.53 | 0.83 | 2.89 | 2.66 | 4.05 | 2.01 | 2.60 | 1.89 | 2.75 |
| Lu | 0.10 | 0.08 | 0.09 | 0.13 | 0.43 | 0.42 | 0.66 | 0.30 | 0.38 | 0.31 | 0.42 |
| Y | 5.20 | 5.50 | 5.01 | 8.63 | 32.2 | 32.5 | 41.6 | 23.5 | 30.9 | 25.3 | 31.9 |
| U | 0.15 | 0.19 | 0.10 | 0.36 | 0.50 | 0.63 | 0.83 | 0.76 | 0.58 | 1.11 | 0.72 |
| Th | 0.34 | 0.42 | 0.27 | 0.77 | 2.05 | 0.49 | 1.11 | 2.20 | 1.14 | 5.35 | 4.88 |
| Pb | 2.21 | 1.96 | 0.61 | 0.93 | 6.67 | 5.73 | 6.87 | 3.41 | 7.09 | 15.3 | 9.67 |

附表 3 黄山南岩体 Rb–Sr、Sm–Nd 和 Pb 同位素组成

Table 3 Rb–Sr, Sm–Nd and Pb isotopes in rocks from the Huangshannan intrusion

| 样号 | HSN-144 | HSN-298 | HSN-349 | HSN-718 | HSN-365 | HSN-373 | HSN-414 | HSN-607 | HSN-850 | HSN-493 | HSN-977 |
|---------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|
| 岩性 | 方辉橄榄岩 | | | 二辉橄榄岩 | 橄榄二辉岩 | | | | (橄榄)辉长苏长岩 | | |
| $^{87}\text{Sr}/^{86}\text{Sr}$ | 0.705414 | 0.705115 | 0.706086 | 0.705239 | 0.707218 | 0.726797 | 0.71607 | 0.706196 | 0.70706 | 0.70622 | 0.709027 |
| $\pm 2\sigma$ | 0.000011 | 0.000011 | 0.000013 | 0.00001 | 0.000013 | 0.000013 | 0.000013 | 0.000013 | 0.000013 | 0.00001 | 0.000011 |
| $(^{87}\text{Sr}/^{86}\text{Sr})_i$ | 0.70505 | 0.70414 | 0.70585 | 0.70378 | 0.70550 | 0.70169 | 0.70528 | 0.70323 | 0.70442 | 0.70497 | 0.70689 |
| $^{143}\text{Nd}/^{144}\text{Nd}$ | 0.512833 | 0.512767 | 0.512643 | 0.512782 | 0.512631 | 0.512653 | 0.512663 | 0.512792 | 0.512725 | 0.512678 | 0.51247 |
| $\pm 2\sigma$ | 0.000008 | 0.000007 | 0.000008 | 0.000009 | 0.000008 | 0.000007 | 0.000009 | 0.000009 | 0.000008 | 0.000009 | 0.000007 |
| $(^{143}\text{Nd}/^{144}\text{Nd})_i$ | 0.51246 | 0.51248 | 0.51238 | 0.51249 | 0.51232 | 0.51236 | 0.51234 | 0.51248 | 0.51242 | 0.51242 | 0.51221 |
| $\epsilon_{\text{Nd}}(t)$ | 3.53 | 4.00 | 2.09 | 4.22 | 0.97 | 1.63 | 1.24 | 3.93 | 2.83 | 2.78 | -1.31 |
| $^{206}\text{Pb}/^{204}\text{Pb}$ | 18.5661 | 18.3546 | 18.513 | 18.4492 | 18.2917 | 18.378 | 18.1604 | 19.181 | 18.9982 | 18.3096 | 18.8892 |
| $\pm 2\sigma$ | 0.0007 | 0.0007 | 0.0008 | 0.0009 | 0.0008 | 0.0008 | 0.0032 | 0.0007 | 0.0007 | 0.001 | 0.0007 |
| $(^{206}\text{Pb}/^{204}\text{Pb})_i$ | 18.17 | 18.13 | 18.19 | 18.13 | 18.13 | 18.21 | 17.67 | 18.90 | 17.88 | 18.11 | 18.27 |
| $^{207}\text{Pb}/^{204}\text{Pb}$ | 15.6036 | 15.5887 | 15.5942 | 15.592 | 15.5823 | 15.5906 | 15.2628 | 15.6126 | 15.6548 | 15.5691 | 15.666 |
| $\pm 2\sigma$ | 0.0007 | 0.0007 | 0.0007 | 0.0009 | 0.0008 | 0.0008 | 0.0031 | 0.0007 | 0.0008 | 0.0009 | 0.0007 |
| $(^{207}\text{Pb}/^{204}\text{Pb})_i$ | 15.58 | 15.58 | 15.58 | 15.58 | 15.57 | 15.58 | 15.24 | 15.60 | 15.60 | 15.56 | 15.63 |
| $^{208}\text{Pb}/^{204}\text{Pb}$ | 38.5712 | 38.3122 | 38.5894 | 38.4032 | 38.2345 | 38.3311 | 37.4933 | 38.326 | 38.8739 | 38.0836 | 39.127 |
| $\pm 2\sigma$ | 0.0021 | 0.0020 | 0.0021 | 0.0025 | 0.0021 | 0.0022 | 0.0094 | 0.0020 | 0.0022 | 0.0027 | 0.0025 |
| $(^{208}\text{Pb}/^{204}\text{Pb})_i$ | 38.16 | 38.07 | 38.05 | 38.11 | 38.06 | 38.16 | 37.20 | 38.13 | 38.09 | 38.00 | 38.30 |

附表4 黄山南岩体橄榄石电子探针分析结果

Table 4 EMPA analytical results of olivines from the Huangshannan intrusion

| 岩性 | 样号 | 点号 | SiO ₂ | MgO | Al ₂ O ₃ | FeO | K ₂ O | CaO | TiO ₂ | MnO | Na ₂ O | Cr ₂ O ₃ | NiO | Total | Fo | Ni(ppm) | Ca(ppm) |
|-------|---------|------|------------------|------|--------------------------------|------|------------------|------|------------------|------|-------------------|--------------------------------|------|-------|------|---------|---------|
| 方辉橄榄岩 | HSN-144 | #1 | 38.7 | 43.8 | - | 15.9 | - | 0.01 | - | 0.2 | - | - | 0.34 | 99 | 83.1 | 2672 | 71.5 |
| | | #2 | 39.6 | 45.5 | - | 14.7 | - | 0 | - | 0.18 | - | - | 0.33 | 100 | 84.7 | 2593 | 0.00 |
| | HSN-298 | #1 | 38.9 | 44.7 | 0.01 | 15.3 | 0.02 | 0.01 | 0 | 0.18 | 0.02 | 0.02 | 0.4 | 99.6 | 83.9 | 3143 | 71.5 |
| | | #2 | 39.3 | 44.4 | 0 | 15.3 | 0 | 0.01 | 0 | 0.24 | 0.01 | 0 | 0.4 | 99.6 | 83.8 | 3143 | 71.5 |
| | | #3 | 39.5 | 44.6 | 0.02 | 15.6 | 0 | 0.04 | 0 | 0.22 | 0 | 0.01 | 0.36 | 100 | 83.6 | 2829 | 286 |
| | | #4 | 39.4 | 43.9 | 0 | 15.7 | 0 | 0.17 | 0 | 0.21 | 0.01 | 0.03 | 0.35 | 99.8 | 83.3 | 2750 | 1215 |
| | | #5 | 38.6 | 43.5 | 0 | 16 | 0 | 0 | 0.01 | 0.19 | 0 | 0 | 0.33 | 98.6 | 82.9 | 2593 | 0.00 |
| | | #6 | 39 | 43.9 | 0.02 | 15.9 | 0.01 | 0.01 | 0.01 | 0.18 | 0 | 0.02 | 0.4 | 99.5 | 83.1 | 3143 | 71.5 |
| | | #7 | 39 | 44.3 | 0 | 15.8 | 0.01 | 0 | 0 | 0.18 | 0 | 0.03 | 0.38 | 99.8 | 83.3 | 2986 | 0.00 |
| | | #8 | 39.2 | 44.4 | 0.01 | 15.5 | 0.01 | 0 | 0.01 | 0.17 | 0 | 0.02 | 0.4 | 99.7 | 83.6 | 3143 | 0.00 |
| | | #9 | 39.1 | 43.4 | 0.01 | 16.1 | 0.01 | 0 | 0.02 | 0.18 | 0 | 0.02 | 0.41 | 99.3 | 82.8 | 3222 | 0.00 |
| | | #10 | 38.9 | 43.4 | 0.03 | 15.7 | 0.01 | 0 | 0 | 0.16 | 0 | 0.03 | 0.44 | 98.6 | 83.1 | 3458 | 0.00 |
| | | #11 | 38.8 | 43.6 | 0 | 15.9 | 0.01 | 0 | 0 | 0.19 | 0.03 | 0.03 | 0.4 | 98.9 | 83.0 | 3143 | 0.00 |
| | | #12 | 38.9 | 44 | 0 | 14.8 | 0.01 | 0 | 0 | 0.21 | 0.02 | 0 | 0.35 | 98.4 | 84.1 | 2750 | 0.00 |
| | | #13 | 39.2 | 44.6 | 0 | 15.5 | 0.01 | 0.01 | 0.01 | 0.22 | 0.01 | 0.03 | 0.43 | 100 | 83.7 | 3379 | 71.5 |
| | | #14 | 39.1 | 44.7 | 0.02 | 15.4 | 0.01 | 0.01 | 0 | 0.22 | 0.06 | 0 | 0.35 | 99.8 | 83.8 | 2750 | 71.5 |
| | | #15 | 38.4 | 43.9 | 0 | 16 | 0 | 0 | 0.01 | 0.2 | 0.01 | 0.01 | 0.23 | 98.8 | 83.0 | 1807 | 0.00 |
| | | #16 | 39.2 | 43.8 | 0 | 16 | 0.01 | 0 | 0 | 0.17 | 0 | 0.01 | 0.39 | 99.5 | 83.0 | 3065 | 0.00 |
| | | #17 | 39 | 43.8 | 0 | 16.4 | 0 | 0 | 0.01 | 0.23 | 0 | 0.01 | 0.45 | 99.9 | 82.6 | 3536 | 0.00 |
| | | #18 | 39.1 | 43.9 | 0 | 15.9 | 0 | 0 | 0 | 0.18 | 0.02 | 0.02 | 0.35 | 99.4 | 83.1 | 2750 | 0.00 |
| | | #19 | 38.7 | 43.4 | 0.02 | 15.9 | 0.01 | 0 | 0 | 0.2 | 0.02 | 0.02 | 0.34 | 98.6 | 83.0 | 2672 | 0.00 |
| | | #20 | 38.7 | 43.8 | 0 | 15.5 | 0.02 | 0 | 0 | 0.19 | 0.01 | 0.02 | 0.39 | 98.6 | 83.4 | 3065 | 0.00 |
| | | #21 | 39.4 | 44.6 | 0 | 15.2 | 0 | 0 | 0 | 0.21 | 0 | 0 | 0.35 | 99.9 | 83.9 | 2750 | 0.00 |
| | | #22 | 39.5 | 45 | 0 | 15.5 | 0 | 0.01 | 0 | 0.19 | 0 | 0.01 | 0.33 | 101 | 83.8 | 2593 | 71.5 |
| | | #23 | 39.3 | 44.4 | 0.01 | 15.5 | 0 | 0 | 0.01 | 0.22 | 0 | 0.02 | 0.34 | 99.8 | 83.6 | 2672 | 0.00 |
| | | #24 | 39.5 | 44.4 | 0 | 15.6 | 0 | 0 | 0 | 0.23 | 0.02 | 0 | 0.36 | 100 | 83.5 | 2829 | 0.00 |
| | | #25 | 39 | 44.2 | 0.05 | 15.9 | 0.01 | 0 | 0 | 0.21 | 0 | 0.01 | 0.28 | 99.6 | 83.2 | 2200 | 0.00 |
| | | #26 | 39 | 43.9 | 0.01 | 15.3 | 0 | 0 | 0 | 0.2 | 0 | 0.03 | 0.34 | 98.8 | 83.6 | 2672 | 0.00 |
| | | #27 | 39.2 | 44.1 | 0.02 | 15.2 | 0.01 | 0 | 0.01 | 0.2 | 0.01 | 0 | 0.43 | 99.2 | 83.8 | 3379 | 0.00 |
| | | #28 | 38.7 | 43.8 | 0 | 15.6 | 0 | 0.01 | 0 | 0.15 | 0.02 | 0 | 0.47 | 98.9 | 83.3 | 3693 | 71.5 |
| | | #29 | 38.8 | 43.9 | 0 | 16.1 | 0.01 | 0 | 0 | 0.2 | 0.01 | 0.13 | 0.4 | 99.5 | 82.9 | 3143 | 0.00 |
| | | #30 | 38.9 | 43.7 | 0 | 15.2 | 0 | 0 | 0 | 0.23 | 0 | 0.04 | 0.41 | 98.6 | 83.7 | 3222 | 0.00 |
| | | #31 | 39.7 | 44.5 | 0 | 15.8 | 0.01 | 0 | 0 | 0.19 | 0.01 | 0.01 | 0.36 | 101 | 83.4 | 2829 | 0.00 |
| | | #32 | 39.2 | 44.5 | 0.01 | 15.6 | 0.01 | 0 | 0.02 | 0.15 | 0 | 0.02 | 0.31 | 99.8 | 83.6 | 2436 | 0.00 |
| | | #33 | 40 | 44.2 | - | 16 | 0.01 | - | - | 0.18 | 0.05 | - | 0.34 | 101 | 83.1 | 2672 | |
| | | #34 | 39.1 | 43.7 | - | 16.8 | 0.01 | - | - | 0.17 | - | - | 0.23 | 100 | 82.3 | 1807 | |
| | | #35 | 39.8 | 44 | 0.01 | 15.9 | 0.01 | - | - | 0.19 | 0.01 | - | 0.29 | 100 | 83.1 | 2279 | |
| | | #36 | 39.8 | 44.3 | - | 16 | 0 | - | - | 0.19 | 0.03 | - | 0.21 | 101 | 83.2 | 1650 | |
| #37 | 39.7 | 43.8 | 0.01 | 16.1 | 0.01 | - | - | 0.21 | 0.01 | 0 | 0.29 | 100 | 82.9 | 2279 | | | |
| #38 | 39.7 | 43.5 | 0.01 | 15.8 | - | - | 0 | 0.17 | 0.01 | 0.02 | 0.24 | 99.4 | 83.1 | 1886 | | | |

附表 4 (续)

Table 4 (Continued)

| 岩性 | 样号 | 点号 | SiO ₂ | MgO | Al ₂ O ₃ | FeO | K ₂ O | CaO | TiO ₂ | MnO | Na ₂ O | Cr ₂ O ₃ | NiO | Total | Fo | Ni(ppm) | Ca(ppm) |
|---------|---------|------|------------------|------|--------------------------------|------|------------------|------|------------------|------|-------------------|--------------------------------|------|-------|------|---------|---------|
| 二辉橄榄岩 | HSN-298 | #39 | 39.2 | 43.7 | - | 16.4 | 0.01 | - | - | 0.22 | - | 0.02 | 0.35 | 99.9 | 82.6 | 2750 | |
| | | #40 | 39.3 | 44.5 | - | 16.4 | 0.01 | - | 0 | 0.19 | - | 0.01 | 0.33 | 101 | 82.9 | 2593 | |
| | | #41 | 40 | 43.4 | - | 16.4 | - | 0 | 0.01 | 0.19 | 0.01 | 0.02 | 0.29 | 100 | 82.5 | 2279 | 0.00 |
| | HSN-112 | 70 | 40.4 | 39 | - | 18.8 | - | 0.01 | - | 0.27 | - | - | 0.15 | 98.6 | 78.7 | 1179 | 71.5 |
| | | 77 | 39.6 | 41.3 | - | 19 | - | 0.02 | - | 0.27 | - | - | 0.15 | 100 | 79.5 | 1179 | 143 |
| | | 78 | 38.7 | 41.7 | - | 18.6 | - | 0.03 | - | 0.24 | - | - | 0.17 | 99.4 | 80.0 | 1336 | 214 |
| | | 79 | 38.8 | 42.3 | - | 18.9 | - | 0.01 | - | 0.26 | - | - | 0.16 | 100 | 80.0 | 1257 | 71.5 |
| | | 80 | 38.7 | 41.9 | - | 18.9 | - | 0.01 | - | 0.26 | - | - | 0.17 | 99.9 | 79.8 | 1336 | 71.5 |
| | | #1 | 38.5 | 42.8 | - | 18.2 | - | - | - | 0.22 | 0.01 | 0.02 | 0.14 | 99.8 | 80.7 | 1100 | |
| | | #2 | 38.9 | 43 | 0 | 18.1 | 0 | - | 0.01 | 0.2 | 0.01 | - | 0.12 | 100 | 80.9 | 943 | |
| | | #3 | 38.4 | 42.6 | 0.01 | 18.1 | 0.01 | - | - | 0.26 | - | - | 0.16 | 99.6 | 80.8 | 1257 | |
| | | #4 | 39.1 | 42.4 | 0.01 | 18.3 | 0 | - | - | 0.29 | - | 0.04 | 0.13 | 100 | 80.5 | 1022 | |
| | | #5 | 38.6 | 42.7 | - | 18.4 | - | - | 0 | 0.26 | 0 | 0.01 | 0.12 | 100 | 80.5 | 943 | |
| | | #6 | 38.7 | 42.8 | 0.02 | 18 | 0.01 | - | 0 | 0.25 | - | 0.01 | 0.17 | 100 | 80.9 | 1336 | |
| | | #7 | 38.2 | 43.2 | - | 18.5 | 0 | - | - | 0.23 | 0.01 | - | 0.17 | 100 | 80.6 | 1336 | |
| | | #8 | 38.9 | 42.1 | - | 18.3 | - | - | 0.01 | 0.26 | 0 | 0.05 | 0.2 | 99.8 | 80.4 | 1572 | |
| | | #9 | 38.7 | 43.2 | - | 18.4 | 0 | - | - | 0.26 | - | 0.02 | 0.17 | 101 | 80.7 | 1336 | |
| | | #10 | 38.2 | 43.2 | - | 18.3 | 0.01 | - | - | 0.24 | 0.01 | - | 0.18 | 100 | 80.8 | 1414 | |
| | | #11 | 38.5 | 42.7 | - | 18.5 | 0 | - | - | 0.26 | - | - | 0.12 | 100 | 80.4 | 943 | |
| | | #12 | 38.4 | 42.5 | 0.02 | 18 | - | - | 0.01 | 0.26 | 0.01 | - | 0.13 | 99.3 | 80.8 | 1022 | |
| | | #13 | 38.4 | 43.3 | - | 18.2 | 0.01 | - | - | 0.23 | 0.01 | - | 0.17 | 100 | 80.9 | 1336 | |
| | | #14 | 38.4 | 43.3 | 0.01 | 18.1 | - | - | - | 0.27 | 0.04 | 0.03 | 0.16 | 100 | 81.0 | 1257 | |
| | | #15 | 37.9 | 44.1 | 0.03 | 18 | - | - | - | 0.24 | 0.03 | 0.04 | 0.16 | 101 | 81.4 | 1257 | |
| | | #16 | 39.1 | 42.9 | - | 18.4 | 0.01 | - | - | 0.23 | 0.02 | - | 0.12 | 101 | 80.6 | 943 | |
| | | #17 | 39 | 42.4 | - | 18.4 | 0 | - | 0.01 | 0.27 | 0.04 | 0.04 | 0.15 | 100 | 80.4 | 1179 | |
| #18 | 38.4 | 42.4 | - | 18.4 | 0 | - | 0 | 0.27 | - | 0.03 | 0.13 | 99.6 | 80.4 | 1022 | | | |
| #19 | 38.8 | 42.3 | - | 18.3 | - | - | - | 0.27 | - | 0.02 | 0.16 | 99.9 | 80.5 | 1257 | | | |
| #20 | 39.1 | 42.1 | - | 18.4 | 0.01 | - | - | 0.28 | - | - | 0.13 | 100 | 80.3 | 1022 | | | |
| #21 | 38.6 | 41.9 | - | 18.5 | 0 | 0.01 | - | 0.31 | 0.03 | 0.02 | 0.17 | 99.6 | 80.1 | 1336 | 71.5 | | |
| #22 | 38.9 | 41.9 | - | 18.5 | 0.01 | - | - | 0.27 | - | - | 0.13 | 99.7 | 80.1 | 1022 | | | |
| #23 | 38.9 | 41.5 | - | 18.5 | - | - | - | 0.23 | 0.01 | 0.02 | 0.16 | 99.3 | 80.0 | 1257 | | | |
| #24 | 37.8 | 42.8 | - | 18.3 | 0.01 | - | - | 0.22 | 0.05 | - | 0.13 | 99.3 | 80.7 | 1022 | | | |
| #25 | 38.5 | 42.6 | 0.03 | 18.2 | 0 | - | - | 0.23 | - | - | 0.21 | 99.8 | 80.7 | 1650 | | | |
| HSN-189 | #1 | 39.4 | 43 | - | 16.4 | - | 0.02 | - | 0.19 | - | - | 0.33 | 99.4 | 82.4 | 2593 | 143 | |
| | #2 | 39 | 44 | - | 16 | - | 0.03 | - | 0.18 | - | - | 0.32 | 99.5 | 83.1 | 2515 | 214 | |
| | #3 | 39.3 | 43.8 | - | 15.9 | - | 0.01 | - | 0.2 | - | - | 0.33 | 99.5 | 83.1 | 2593 | 71.5 | |
| HSN-416 | #1 | 39.2 | 44.7 | - | 15.3 | - | 0 | - | 0.18 | - | - | 0.2 | 99.6 | 83.9 | 1572 | 0.00 | |
| | #2 | 38.8 | 43.8 | - | 16.4 | - | 0 | - | 0.2 | - | - | 0.19 | 99.5 | 82.6 | 1493 | 0.00 | |
| | #3 | 38.6 | 44.9 | - | 15.2 | - | 0.01 | - | 0.16 | - | - | 0.24 | 99.1 | 84.0 | 1886 | 71.5 | |
| | #4 | 40 | 43.6 | - | 15.3 | - | 0.01 | - | 0.19 | - | - | 0.26 | 99.3 | 83.6 | 2043 | 71.5 | |

附表 4 (续)

Table 4 (Continued)

| 岩性 | 样号 | 点号 | SiO ₂ | MgO | Al ₂ O ₃ | FeO | K ₂ O | CaO | TiO ₂ | MnO | Na ₂ O | Cr ₂ O ₃ | NiO | Total | Fo | Ni(ppm) | Ca(ppm) | | |
|-------|---------|-----|------------------|------|--------------------------------|------|------------------|------|------------------|------|-------------------|--------------------------------|------|-------|------|---------|---------|------|------|
| | HSN-416 | #5 | 39.5 | 44.8 | - | 15.1 | - | 0 | - | 0.2 | - | - | 0.22 | 99.8 | 84.1 | 1729 | 0.00 | | |
| | | #6 | 39.3 | 45.3 | 0 | 14 | 0.01 | 0 | 0 | 0.18 | 0.03 | 0.03 | 0.22 | 99.1 | 85.2 | 1729 | 0.00 | | |
| | | #7 | 39.7 | 45.4 | 0 | 13.8 | 0.03 | 0.03 | 0 | 0.21 | 0.09 | 0.03 | 0.29 | 99.5 | 85.4 | 2279 | 214 | | |
| | | #8 | 39.8 | 46 | 0 | 14.6 | 0 | 0 | 0 | 0.21 | 0.01 | 0 | 0.2 | 101 | 84.9 | 1572 | 0.00 | | |
| | | #9 | 38.9 | 44.3 | 0 | 15.3 | 0.01 | 0.01 | 0 | 0.21 | 0 | 0 | 0.14 | 98.9 | 83.8 | 1100 | 71.5 | | |
| | | #10 | 39.4 | 44.4 | 0 | 15.7 | 0.01 | 0 | 0 | 0.21 | 0.02 | 0 | 0.21 | 99.9 | 83.4 | 1650 | 0.00 | | |
| | | #11 | 39.2 | 45.3 | 0 | 14.2 | 0.01 | 0 | 0 | 0.21 | 0.01 | 0 | 0.22 | 99.1 | 85.0 | 1729 | 0.00 | | |
| | | #12 | 40.2 | 45.8 | 0.12 | 14.4 | 0.01 | 0.11 | 0 | 0.19 | 0.03 | 0.09 | 0.29 | 101 | 85.0 | 2279 | 786 | | |
| | | #13 | 40.4 | 46.1 | 0 | 14.2 | 0.02 | 0 | 0.01 | 0.25 | 0.04 | 0.02 | 0.29 | 101 | 85.3 | 2279 | 0.00 | | |
| | | #14 | 38.9 | 44.7 | 0.02 | 14.2 | 0.03 | 0.02 | 0 | 0.17 | 0.09 | 0.01 | 0.23 | 98.4 | 84.9 | 1807 | 143 | | |
| | | #15 | 39.2 | 45.3 | 0 | 14 | 0 | 0 | 0 | 0.24 | 0.01 | 0.05 | 0.21 | 98.9 | 85.2 | 1650 | 0.00 | | |
| | | #16 | 39.6 | 45 | 0 | 13.9 | 0 | 0.34 | 0 | 0.18 | 0.01 | 0 | 0.2 | 99.2 | 85.2 | 1572 | 2430 | | |
| | | #17 | 38.9 | 44 | 0.03 | 15.1 | 0.01 | 0 | 0.01 | 0.2 | 0 | 0.03 | 0.19 | 98.5 | 83.9 | 1493 | 0.00 | | |
| | | #18 | 38.8 | 44.8 | 0 | 14.3 | 0.02 | 0 | 0 | 0.14 | 0.01 | 0.01 | 0.27 | 98.3 | 84.8 | 2122 | 0.00 | | |
| | | | HSN-950 | #1 | 39.7 | 45.4 | - | 14 | 0.01 | 0 | - | 0.15 | - | - | 0.33 | 99.6 | 85.3 | 2593 | 0.00 |
| | | | | #2 | 39.7 | 44.4 | - | 14.3 | 0 | 0 | - | 0.16 | 0.04 | 0.02 | 0.32 | 99 | 84.7 | 2515 | 0.00 |
| | | | | #3 | 38.7 | 44.1 | - | 17.5 | - | - | - | 0.23 | 0.03 | - | 0.39 | 101 | 81.8 | 3065 | |
| | | | | #4 | 39.9 | 44.8 | 0.01 | 14.7 | 0.01 | 0.01 | 0 | 0.18 | 0.01 | 0.02 | 0.31 | 99.9 | 84.5 | 2436 | 71.5 |
| #5 | 39.9 | | | 43.6 | - | 15.2 | 0.02 | 0.01 | - | 0.18 | 0.05 | 0.04 | 0.38 | 99.4 | 83.6 | 2986 | 71.5 | | |
| #6 | 39.2 | | | 43.8 | - | 17 | - | 0.01 | 0.01 | 0.23 | 0.02 | 0.03 | 0.34 | 101 | 82.1 | 2672 | 71.5 | | |
| #7 | 39.4 | | | 43.5 | 0.53 | 15.9 | 0.01 | 0.01 | - | 0.21 | 0.02 | 0.05 | 0.36 | 100 | 83.0 | 2829 | 71.5 | | |
| #8 | 39.5 | | | 45.2 | - | 14.5 | 0.01 | - | - | 0.13 | 0 | 0 | 0.34 | 99.8 | 84.7 | 2672 | | | |
| #9 | 38.9 | | | 45.1 | 0.01 | 14.7 | 0.01 | 0.02 | - | 0.17 | - | 0.01 | 0.35 | 99.2 | 84.5 | 2750 | 143 | | |
| #10 | 40.9 | | | 46.5 | 0.01 | 12.8 | 0 | 0 | - | 0.22 | - | - | 0.24 | 101 | 86.6 | 1886 | 0.00 | | |
| 橄榄二辉岩 | HSN-159 | #1 | 39 | 46 | - | 15.5 | - | 0 | - | 0.18 | - | - | 0.36 | 101 | 84.1 | 2829 | 0.00 | | |
| | | #2 | 39.4 | 44 | - | 16.1 | - | 0.01 | - | 0.17 | - | - | 0.36 | 100 | 83.0 | 2829 | 71.5 | | |
| | | #3 | 38 | 39.2 | - | 20.8 | - | 0.01 | - | 0.24 | - | - | 0.35 | 98.6 | 77.1 | 2750 | 71.5 | | |
| | | #4 | 39.2 | 43.7 | - | 16.1 | - | 0.02 | - | 0.21 | - | - | 0.39 | 99.6 | 82.9 | 3065 | 143 | | |
| | | #5 | 39.1 | 44.2 | - | 15.7 | - | 0 | - | 0.18 | - | - | 0.37 | 99.6 | 83.4 | 2907 | 0.00 | | |
| | | #6 | 39.1 | 42.6 | - | 18 | - | 0.02 | - | 0.21 | - | - | 0.35 | 100 | 80.8 | 2750 | 143 | | |
| | | #7 | 38.6 | 42.2 | - | 18.2 | - | 0 | - | 0.19 | - | - | 0.35 | 99.5 | 80.5 | 2750 | 0.00 | | |
| | HSN-330 | #1 | 39.4 | 44.8 | 0.02 | 14.1 | 0 | 0.01 | - | 0.17 | 0 | - | 0.39 | 98.9 | 85.0 | 3065 | 71.5 | | |
| | | #2 | 39.6 | 44.6 | 0.01 | 15 | 0.01 | - | - | 0.16 | 0.01 | 0 | 0.4 | 99.8 | 84.1 | 3143 | | | |
| | | #3 | 39 | 45 | 0.01 | 14.8 | 0.01 | - | - | 0.13 | - | 0.02 | 0.32 | 99.3 | 84.4 | 2515 | | | |
| | | #7 | 39.5 | 44.4 | - | 15.5 | 0.01 | - | - | 0.15 | 0.02 | - | 0.36 | 100 | 83.6 | 2829 | | | |
| | | #8 | 39.2 | 44.5 | 0.02 | 15.5 | 0.01 | - | 0.02 | 0.16 | 0.01 | 0.03 | 0.38 | 99.8 | 83.7 | 2986 | | | |
| | | #9 | 39.3 | 44.6 | 0 | 15.7 | 0.01 | - | 0.01 | 0.14 | 0.01 | 0.02 | 0.37 | 100 | 83.5 | 2907 | | | |
| | | #10 | 39.5 | 46.1 | 0.01 | 13.7 | 0.01 | - | 0.01 | 0.13 | 0.03 | 0.01 | 0.33 | 99.9 | 85.7 | 2593 | | | |
| | | #11 | 39.5 | 45.7 | - | 13.5 | 0 | - | 0.01 | 0.13 | 0.03 | - | 0.37 | 99.2 | 85.8 | 2907 | | | |
| | | #12 | 40 | 45.6 | 0.03 | 13.9 | 0.01 | - | 0.01 | 0.18 | - | 0 | 0.34 | 100 | 85.4 | 2672 | | | |

附表 4 (续)

Table 4 (Continued)

| 岩性 | 样号 | 点号 | SiO ₂ | MgO | Al ₂ O ₃ | FeO | K ₂ O | CaO | TiO ₂ | MnO | Na ₂ O | Cr ₂ O ₃ | NiO | Total | Fo | Ni(ppm) | Ca(ppm) |
|----|---------|-----|------------------|------|--------------------------------|------|------------------|------|------------------|------|-------------------|--------------------------------|------|-------|------|---------|---------|
| | HSN-330 | #13 | 39.4 | 45.3 | - | 14 | 0.01 | - | 0.01 | 0.19 | 0.03 | 0.02 | 0.39 | 99.4 | 85.2 | 3065 | |
| | | #14 | 39.2 | 45.9 | - | 14.2 | 0.01 | 0.01 | 0.01 | 0.17 | - | - | 0.33 | 99.8 | 85.2 | 2593 | 71.5 |
| | | #15 | 39.3 | 45.8 | 0.02 | 14 | - | 0 | 0 | 0.16 | - | 0.01 | 0.4 | 99.7 | 85.4 | 3143 | 0.00 |
| | | #16 | 39.4 | 44 | - | 15.7 | 0 | - | - | 0.2 | 0.03 | 0.01 | 0.35 | 99.6 | 83.3 | 2750 | |
| | | #17 | 40.1 | 43.9 | 0.02 | 15.5 | 0 | - | - | 0.18 | 0.05 | 0.08 | 0.42 | 100 | 83.5 | 3300 | |
| | | #18 | 39.2 | 44.2 | 0.01 | 15.7 | 0.02 | 0 | 0.01 | 0.22 | 0.02 | 0.02 | 0.35 | 99.8 | 83.4 | 2750 | 0.00 |
| | | #19 | 39.8 | 44.2 | - | 15.6 | 0.02 | - | - | 0.21 | 0.03 | 0 | 0.4 | 100 | 83.5 | 3143 | |
| | | #20 | 39.2 | 44.6 | 0.02 | 15.7 | - | - | 0 | 0.19 | 0.02 | 0.02 | 0.37 | 100 | 83.5 | 2907 | |
| | | #21 | 38.7 | 43.7 | 0.02 | 15.4 | 0.03 | 0.01 | 0.01 | 0.18 | 0.04 | 0.01 | 0.42 | 98.5 | 83.5 | 3300 | 71.5 |
| | | #22 | 39.4 | 44.6 | 0 | 14.3 | 0.01 | - | 0.01 | 0.21 | - | - | 0.38 | 98.9 | 84.8 | 2986 | |
| | | #23 | 39.7 | 44.7 | 0.01 | 15.3 | 0.01 | 0 | 0.01 | 0.13 | 0.01 | - | 0.39 | 100 | 83.9 | 3065 | 0.00 |
| | | #24 | 39.8 | 44.7 | - | 15.4 | 0.01 | - | 0.01 | 0.18 | 0.01 | - | 0.37 | 100 | 83.8 | 2907 | |
| | | #25 | 38.6 | 45.1 | - | 15 | - | 0.01 | - | 0.21 | - | - | 0.32 | 99.2 | 84.3 | 2515 | 71.5 |
| | | #26 | 38.8 | 43.1 | - | 15.8 | - | 0.04 | - | 0.15 | - | - | 0.32 | 98.3 | 82.9 | 2515 | 286 |
| | | #27 | 39 | 44.7 | - | 14.9 | - | 0.02 | - | 0.2 | - | - | 0.33 | 99.1 | 84.2 | 2593 | 143 |
| | HSN-414 | #1 | 39.3 | 42 | - | 17.8 | - | 0.01 | - | 0.19 | - | - | 0.41 | 99.7 | 80.8 | 3222 | 71.5 |
| | | #2 | 38 | 44.6 | - | 17.1 | - | 0.02 | - | 0.21 | - | - | 0.42 | 100 | 82.3 | 3300 | 143 |
| | | #3 | 39.5 | 44 | - | 16 | 0 | - | 0.01 | 0.2 | 0.01 | 0.02 | 0.43 | 100 | 83.1 | 3379 | |
| | | #4 | 39.5 | 45 | - | 16.1 | 0.01 | - | 0.01 | 0.17 | 0.02 | - | 0.41 | 101 | 83.3 | 3222 | |
| | | #5 | 39.6 | 44.2 | - | 16 | 0 | 0 | - | 0.22 | 0 | 0 | 0.43 | 100 | 83.1 | 3379 | 0.00 |
| | | #6 | 39.4 | 43.9 | 0.01 | 16.4 | - | - | 0 | 0.2 | 0.01 | - | 0.43 | 100 | 82.7 | 3379 | |
| | | #7 | 39.2 | 44 | - | 16.6 | - | - | - | 0.22 | - | - | 0.44 | 101 | 82.5 | 3458 | |
| | | #8 | 39.4 | 42.7 | - | 16.4 | 0.01 | - | 0.01 | 0.25 | - | - | 0.46 | 99.2 | 82.3 | 3615 | |
| | | #9 | 40 | 44.3 | 0.01 | 17 | 0.01 | - | - | 0.24 | - | 0.03 | 0.36 | 102 | 82.3 | 2829 | |
| | | #10 | 39.2 | 43.3 | 0.09 | 16.7 | 0.01 | - | - | 0.19 | 0.01 | 0.05 | 0.41 | 99.9 | 82.2 | 3222 | |
| | | #11 | 39.4 | 44.8 | - | 16.4 | 0 | 0.01 | - | 0.17 | - | 0.02 | 0.38 | 101 | 83.0 | 2986 | 71.5 |
| | HSN-513 | #1 | 40.7 | 44.9 | 0 | 13.8 | 0 | - | - | 0.15 | - | - | 0.27 | 99.8 | 85.3 | 2122 | |
| | | #2 | 39.7 | 45.7 | 0.01 | 14 | 0.01 | - | - | 0.17 | 0.02 | 0.03 | 0.32 | 100 | 85.3 | 2515 | |
| | | #3 | 39.7 | 45.3 | 0.01 | 13.6 | 0.01 | - | 0.01 | 0.18 | 0.01 | 0.02 | 0.36 | 99.3 | 85.6 | 2829 | |
| | | #4 | 39.6 | 45.7 | 0 | 14 | 0 | 0 | 0 | 0.17 | 0 | 0.02 | 0.36 | 99.8 | 85.3 | 2829 | 0.00 |
| | | #5 | 40 | 45.5 | 0 | 14.1 | 0 | 0 | 0.01 | 0.19 | 0.01 | 0.02 | 0.39 | 100 | 85.2 | 3065 | 0.00 |
| | HSN-513 | #6 | 39.8 | 46.1 | 0.03 | 13.3 | 0.01 | 0 | 0.01 | 0.21 | 0.02 | 0.01 | 0.33 | 99.9 | 86.1 | 2593 | 0.00 |
| | | #7 | 39.7 | 45.9 | 0 | 13.3 | 0 | 0 | 0 | 0.18 | 0.01 | 0.01 | 0.31 | 99.5 | 86.0 | 2436 | 0.00 |
| | | #8 | 39.2 | 46 | 0 | 13.4 | 0 | 0 | 0 | 0.17 | 0.02 | 0 | 0.37 | 99.1 | 86.0 | 2907 | 0.00 |
| | | #9 | 39.6 | 46.1 | 0 | 13.4 | 0.01 | 0 | 0 | 0.22 | 0.01 | 0.02 | 0.35 | 99.7 | 86.0 | 2750 | 0.00 |
| | | #10 | 39.4 | 45.8 | 0.01 | 13.4 | 0.02 | 0.01 | 0 | 0.16 | 0.06 | 0 | 0.4 | 99.3 | 85.9 | 3143 | 71.5 |
| | | #11 | 39.8 | 45.9 | 0 | 13.3 | 0.02 | 0 | 0 | 0.19 | 0.02 | 0 | 0.37 | 99.6 | 86.0 | 2907 | 0.00 |
| | | #12 | 39.6 | 45.7 | 0 | 13.6 | 0.01 | 0.01 | 0.01 | 0.14 | 0.04 | 0 | 0.42 | 99.6 | 85.7 | 3300 | 71.5 |
| | | #13 | 39.2 | 46 | 0 | 12.7 | 0 | 0.01 | 0.01 | 0.21 | 0.03 | 0.05 | 0.41 | 98.5 | 86.6 | 3222 | 71.5 |
| | | #14 | 39.5 | 46 | 0.02 | 13.7 | 0 | 0 | 0 | 0.15 | 0.01 | 0.02 | 0.35 | 99.8 | 85.7 | 2750 | 0.00 |

附表 4 (续)

Table 4 (Continued)

| 岩性 | 样号 | 点号 | SiO ₂ | MgO | Al ₂ O ₃ | FeO | K ₂ O | CaO | TiO ₂ | MnO | Na ₂ O | Cr ₂ O ₃ | NiO | Total | Fo | Ni(ppm) | Ca(ppm) |
|---------------|---------|---------|------------------|------|--------------------------------|------|------------------|------|------------------|------|-------------------|--------------------------------|------|-------|------|---------|---------|
| | HSN-513 | #15 | 39.5 | 46.1 | - | 13.8 | - | 0.02 | - | 0.15 | - | - | 0.33 | 99.9 | 85.6 | 2593 | 143 |
| | HSN-607 | #1 | 39 | 45.1 | - | 14.5 | - | 0.01 | - | 0.23 | - | - | 0.35 | 99.3 | 84.7 | 2750 | 71.5 |
| | | #2 | 40.1 | 42.7 | - | 15.4 | - | 0.01 | - | 0.19 | - | - | 0.35 | 98.8 | 83.2 | 2750 | 71.5 |
| | | #3 | 38.9 | 43.3 | - | 15.5 | - | 0.03 | - | 0.18 | - | - | 0.35 | 98.2 | 83.3 | 2750 | 214 |
| | | #4 | 39.3 | 43.6 | - | 15.5 | - | 0.02 | - | 0.18 | - | - | 0.37 | 99 | 83.4 | 2907 | 143 |
| | HSN-850 | #1 | 40.1 | 40.1 | - | 18.2 | - | 0.01 | - | 0.21 | - | - | 0.3 | 99 | 79.7 | 2357 | 71.5 |
| | | #2 | 37.4 | 44.8 | - | 18.2 | - | 0.02 | - | 0.2 | - | - | 0.29 | 101 | 81.4 | 2279 | 143 |
| | | #3 | 39.3 | 41.6 | - | 17.9 | - | 0.01 | - | 0.17 | - | - | 0.32 | 99.3 | 80.6 | 2515 | 71.5 |
| | HSN-937 | #1 | 39 | 43.5 | - | 16.8 | - | 0 | - | 0.19 | - | - | 0.27 | 99.9 | 82.2 | 2122 | 0.00 |
| | | #2 | 39.3 | 43.7 | - | 17.1 | - | 0 | - | 0.19 | - | - | 0.26 | 101 | 82.0 | 2043 | 0.00 |
| | | #3 | 38.7 | 43.7 | - | 17 | - | 0 | - | 0.2 | - | - | 0.29 | 99.8 | 82.1 | 2279 | 0.00 |
| | | #4 | 38.6 | 43.7 | - | 17 | - | 0 | - | 0.16 | - | - | 0.29 | 99.8 | 82.1 | 2279 | 0.00 |
| | HSN-539 | #1 | 40 | 46 | - | 13.7 | - | 0 | - | 0.16 | - | - | 0.24 | 100 | 85.7 | 1886 | 0.00 |
| | | #2 | 39.7 | 46.3 | - | 13.3 | - | 0.01 | - | 0.15 | - | - | 0.22 | 99.7 | 86.1 | 1729 | 71.5 |
| | | #3 | 40.1 | 45.1 | - | 13.9 | - | 0 | - | 0.16 | - | - | 0.24 | 99.6 | 85.3 | 1886 | 0.00 |
| | | #4 | 39.4 | 45.7 | - | 14 | - | 0.01 | - | 0.17 | - | - | 0.25 | 99.5 | 85.3 | 1965 | 71.5 |
| | | #6 | 40 | 46.4 | 0.02 | 13.6 | 0 | 0.01 | 0.01 | 0.17 | 0 | 0.06 | 0.27 | 101 | 85.9 | 2122 | 71.5 |
| | | #7 | 40.3 | 46.4 | 0 | 13.3 | - | - | 0 | 0.19 | 0.02 | - | 0.28 | 101 | 86.1 | 2200 | |
| | | #8 | 40 | 46.2 | - | 13.8 | - | - | - | 0.13 | - | 0.03 | 0.31 | 101 | 85.6 | 2436 | |
| | | #9 | 40.1 | 45.8 | - | 13.6 | - | - | - | 0.15 | 0.03 | - | 0.3 | 100 | 85.7 | 2357 | |
| | | #10 | 39.9 | 46.3 | - | 13.7 | 0 | - | 0.01 | 0.11 | 0.01 | - | 0.34 | 101 | 85.8 | 2672 | |
| | | #11 | 40.2 | 45.6 | 0.01 | 13.4 | 0.01 | - | - | 0.2 | 0.03 | 0.02 | 0.25 | 99.8 | 85.8 | 1965 | |
| | | #12 | 39.8 | 46 | 0.02 | 13.4 | 0.01 | - | 0.01 | 0.15 | 0.02 | 0.04 | 0.25 | 99.7 | 86.0 | 1965 | |
| | | #13 | 39.7 | 45.9 | 0.01 | 13.5 | 0.01 | 0 | - | 0.16 | - | - | 0.34 | 99.6 | 85.8 | 2672 | 0.00 |
| | | #14 | 39.9 | 46.7 | 0.02 | 13.4 | 0.01 | - | 0.01 | 0.19 | 0.01 | 0 | 0.23 | 101 | 86.1 | 1807 | |
| | | #15 | 40.2 | 46.1 | - | 12.8 | - | - | - | 0.14 | 0.01 | - | 0.31 | 99.6 | 86.5 | 2436 | |
| | | #16 | 40.4 | 46.3 | 0.02 | 13.3 | 0 | - | - | 0.14 | 0.01 | - | 0.31 | 101 | 86.1 | 2436 | |
| | | #17 | 40.3 | 45.8 | 0.01 | 13.2 | 0 | - | 0.02 | 0.14 | - | 0.02 | 0.27 | 99.8 | 86.1 | 2122 | |
| | | #18 | 39.9 | 45.9 | 0.01 | 13.4 | 0.01 | 0 | - | 0.13 | 0.02 | 0.01 | 0.27 | 99.7 | 85.9 | 2122 | 0.00 |
| | | #19 | 40.1 | 45.9 | 0.01 | 13.4 | 0.01 | - | 0.01 | 0.16 | 0.02 | 0.04 | 0.3 | 99.9 | 85.9 | 2357 | |
| (橄榄)辉长 苏长岩 | | HSN-299 | #1 | 38.5 | 41.9 | 0 | 17.4 | 0.03 | 0 | 0 | 0.22 | 0.02 | 0 | 0.35 | 98.5 | 81.1 | 2750 |
| | #2 | | 38.9 | 43.7 | 0.02 | 16.1 | 0 | 0 | 0 | 0.2 | 0.01 | 0 | 0.39 | 99.3 | 82.9 | 3065 | 0.00 |
| | #3 | | 38.7 | 42.5 | 0 | 16.1 | 0 | 0.01 | 0 | 0.21 | 0 | 0.07 | 0.29 | 97.9 | 82.5 | 2279 | 71.5 |
| | #4 | | 38.9 | 43.9 | 0 | 15.6 | 0 | 0 | 0.01 | 0.24 | 0 | 0.02 | 0.39 | 99.1 | 83.4 | 3065 | 0.00 |
| | #5 | | 38.4 | 42.3 | 0.01 | 16.9 | 0 | 0.01 | 0 | 0.22 | 0 | 0.05 | 0.29 | 98.1 | 81.7 | 2279 | 71.5 |
| | HSN-567 | #1 | 40 | 45.5 | - | 13 | 0 | 0 | - | 0.14 | 0.01 | 0.01 | 0.18 | 98.8 | 86.2 | 1414 | 0.00 |
| | | #2 | 39.8 | 46 | - | 13.5 | 0.01 | - | 0 | 0.13 | 0.02 | - | 0.3 | 99.8 | 85.9 | 2357 | |
| | | #4 | 39.5 | 45.5 | - | 14.6 | - | 0.01 | - | 0.17 | - | - | 0.24 | 100 | 84.7 | 1886 | 71.5 |
| | | #5 | 39.9 | 45.7 | - | 14.1 | - | 0.01 | - | 0.14 | - | - | 0.25 | 100 | 85.2 | 1965 | 71.5 |

附表 5 黄山南岩体斜方辉石电子探针分析结果

Table 5 EMPA analytical results of orthopyroxenes from the Huangshannan intrusion

| 岩性 | 样号 | 点号 | SiO ₂ | TiO ₂ | Al ₂ O ₃ | FeO | MnO | MgO | CaO | Cr ₂ O ₃ | K ₂ O | Na ₂ O | Total | Mg# | Ferrosilite | Wollastonite | Enstatite |
|---------|---------|---------|------------------|------------------|--------------------------------|------|------|------|------|--------------------------------|------------------|-------------------|-------|-------|-------------|--------------|-----------|
| 方辉橄榄岩 | HSN-144 | #1 | 55.1 | 0.02 | 0.27 | 9.88 | 0.25 | 32.7 | 0.13 | 0.09 | 0.00 | 0.00 | 98.4 | 85.5 | 14.8 | 0.25 | 85.0 |
| | | #2 | 54.5 | 0.13 | 3.37 | 9.49 | 0.20 | 31.0 | 0.74 | 0.33 | 0.00 | 0.00 | 99.7 | 85.3 | 14.7 | 1.44 | 83.9 |
| 二辉橄榄岩 | HSN-189 | #1 | 55.5 | 0.15 | 2.25 | 10.1 | 0.21 | 30.5 | 1.31 | 0.44 | 0.03 | 0.03 | 100.5 | 84.3 | 15.6 | 2.52 | 81.9 |
| | | #2 | 55.0 | 0.19 | 3.13 | 10.4 | 0.20 | 29.9 | 1.14 | 0.48 | 0.01 | 0.02 | 100.4 | 83.7 | 16.2 | 2.24 | 81.6 |
| | | #3 | 54.2 | 0.20 | 3.31 | 10.8 | 0.22 | 30.6 | 0.88 | 0.46 | 0.02 | 0.03 | 100.7 | 83.5 | 16.5 | 1.69 | 81.8 |
| | HSN-416 | #1 | 55.9 | 0.18 | 2.54 | 9.23 | 0.20 | 31.0 | 1.26 | 0.43 | 0.00 | 0.04 | 100.8 | 85.7 | 14.2 | 2.43 | 83.3 |
| | | #2 | 55.1 | 0.17 | 2.16 | 9.46 | 0.19 | 32.7 | 1.47 | 0.43 | 0.00 | 0.02 | 101.7 | 86.0 | 13.8 | 2.69 | 83.5 |
| | 橄榄二辉岩 | HSN-330 | #1 | 55.8 | 0.16 | 1.70 | 8.92 | 0.20 | 31.7 | 1.38 | 0.24 | 0.00 | 0.04 | 100.1 | 86.4 | 13.5 | 2.62 |
| #2 | | | 56.2 | 0.17 | 1.33 | 11.9 | 0.22 | 30.2 | 0.65 | 0.07 | 0.00 | 0.00 | 100.7 | 81.9 | 18.2 | 1.24 | 80.6 |
| #3 | | | 54.9 | 0.14 | 1.85 | 10.0 | 0.21 | 31.2 | 1.09 | 0.25 | 0.00 | 0.07 | 99.7 | 84.7 | 15.2 | 2.07 | 82.7 |
| #4 | | | 55.1 | 0.16 | 2.04 | 10.3 | 0.19 | 30.0 | 1.87 | 0.34 | 0.00 | 0.02 | 100.0 | 83.9 | 15.8 | 3.61 | 80.6 |
| HSN-414 | | #1 | 55.0 | 0.07 | 1.02 | 13.3 | 0.30 | 31.7 | 0.23 | 0.13 | 0.00 | 0.01 | 101.8 | 80.9 | 19.3 | 0.42 | 80.3 |
| | | #2 | 54.8 | 0.08 | 1.42 | 14.9 | 0.27 | 29.5 | 0.41 | 0.10 | 0.01 | 0.03 | 101.5 | 77.9 | 22.2 | 0.77 | 77.0 |
| | | #3 | 52.4 | 0.15 | 2.37 | 11.3 | 0.19 | 30.6 | 1.43 | 0.26 | 0.02 | 0.11 | 98.8 | 82.9 | 16.9 | 2.70 | 80.4 |
| | | #4 | 55.7 | 0.14 | 2.12 | 12.1 | 0.23 | 29.4 | 0.74 | 0.20 | 0.00 | 0.02 | 100.7 | 81.2 | 18.8 | 1.44 | 79.7 |
| HSN-519 | | #1 | 54.9 | 0.16 | 2.21 | 10.6 | 0.21 | 30.7 | 1.48 | 0.27 | 0.00 | 0.02 | 100.5 | 83.7 | 16.1 | 2.81 | 81.1 |
| | | #2 | 54.8 | 0.21 | 2.23 | 11.3 | 0.22 | 29.0 | 2.55 | 0.29 | 0.02 | 0.04 | 100.7 | 82.0 | 17.4 | 4.91 | 77.7 |
| | | #3 | 55.2 | 0.16 | 2.14 | 10.3 | 0.19 | 31.2 | 1.21 | 0.21 | 0.00 | 0.02 | 100.5 | 84.4 | 15.5 | 2.30 | 82.2 |
| HSN-607 | | #1 | 54.9 | 0.14 | 2.72 | 9.68 | 0.18 | 30.8 | 1.07 | 0.50 | 0.00 | 0.07 | 100.0 | 85.0 | 14.9 | 2.07 | 83.0 |
| | | #2 | 55.3 | 0.15 | 2.22 | 9.87 | 0.19 | 31.0 | 1.27 | 0.51 | 0.00 | 0.07 | 100.6 | 84.8 | 15.0 | 2.44 | 82.5 |
| | | #3 | 55.4 | 0.13 | 2.33 | 9.88 | 0.19 | 30.3 | 1.41 | 0.41 | 0.00 | 0.01 | 100.0 | 84.5 | 15.3 | 2.75 | 81.9 |

| | | | | | | | | | | | | | | | | |
|---------|----|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|
| HSN-850 | #1 | 54.6 | 0.18 | 2.70 | 11.7 | 0.23 | 30.2 | 0.77 | 0.34 | 0.02 | 0.02 | 100.7 | 82.1 | 17.9 | 1.48 | 80.6 |
| HSN-937 | #1 | 54.6 | 0.19 | 2.66 | 10.0 | 0.20 | 30.8 | 1.56 | 0.57 | 0.01 | 0.03 | 100.7 | 84.6 | 15.2 | 2.98 | 81.8 |

附表 5 (续)

Table 5 (Continued)

| 岩性 | 样号 | 点号 | SiO ₂ | TiO ₂ | Al ₂ O ₃ | FeO | MnO | MgO | CaO | Cr ₂ O ₃ | K ₂ O | Na ₂ O | Total | Mg# | Ferrosilite | Wollastonite | Enstatite |
|---------------|---------|------|------------------|------------------|--------------------------------|------|------|------|------|--------------------------------|------------------|-------------------|-------|------|-------------|--------------|-----------|
| (橄榄)辉长 苏长岩 | HSN-539 | #1 | 55.5 | 0.14 | 2.37 | 9.10 | 0.20 | 32.6 | 1.40 | 0.58 | 0.00 | 0.02 | 101.9 | 86.5 | 13.4 | 2.58 | 84.0 |
| | | #2 | 55.5 | 0.33 | 1.92 | 10.5 | 0.22 | 30.7 | 1.55 | 0.42 | 0.00 | 0.02 | 101.1 | 83.9 | 15.9 | 2.95 | 81.2 |
| | | #3 | 55.8 | 0.20 | 1.80 | 10.0 | 0.23 | 31.1 | 1.14 | 0.41 | 0.00 | 0.02 | 100.7 | 84.7 | 15.2 | 2.17 | 82.6 |
| | | #4 | 56.2 | 0.05 | 1.30 | 11.6 | 0.23 | 31.0 | 0.12 | 0.25 | 0.04 | 0.04 | 100.8 | 82.7 | 17.6 | 0.23 | 82.2 |
| | | #5 | 55.2 | 0.18 | 2.21 | 9.49 | 0.18 | 31.0 | 1.61 | 0.53 | 0.01 | 0.05 | 100.5 | 85.3 | 14.4 | 3.08 | 82.5 |
| | HSN-567 | #1 | 55.3 | 0.36 | 2.02 | 9.65 | 0.21 | 30.8 | 1.53 | 0.51 | 0.02 | 0.03 | 100.4 | 85.0 | 14.8 | 2.93 | 82.3 |
| | | #2 | 55.6 | 0.15 | 1.91 | 9.14 | 0.19 | 31.3 | 1.36 | 0.37 | 0.01 | 0.05 | 100.1 | 85.9 | 13.9 | 2.60 | 83.5 |
| | | #3 | 56.1 | 0.15 | 2.02 | 9.19 | 0.18 | 31.4 | 1.49 | 0.48 | 0.02 | 0.05 | 101.1 | 85.9 | 13.9 | 2.83 | 83.2 |
| | HSN-69 | #1 | 52.9 | 0.35 | 2.18 | 19.5 | 0.35 | 24.4 | 1.45 | 0.02 | 0.01 | 0.00 | 101.1 | 69.0 | 30.5 | 2.85 | 66.6 |
| | | #2 | 51.5 | 0.27 | 2.20 | 19.9 | 0.34 | 26.1 | 1.26 | 0.06 | 0.00 | 0.02 | 101.6 | 70.0 | 29.6 | 2.35 | 68.0 |
| #3 | | 52.9 | 0.35 | 2.18 | 19.5 | 0.35 | 24.4 | 1.45 | 0.02 | 0.01 | 0.00 | 101.1 | 69.0 | 30.5 | 2.9 | 66.6 | |
| #4 | | 51.5 | 0.27 | 2.20 | 19.9 | 0.34 | 26.1 | 1.26 | 0.06 | 0.00 | 0.02 | 101.6 | 70.0 | 29.6 | 2.4 | 68.0 | |

附表 6 黄山南岩体单斜辉石电子探针分析结果

Table 6 EMPA analytical results of clinopyroxenes from the Huangshannan intrusion

| 岩性 | 样号 | 点号 | SiO ₂ | TiO ₂ | Al ₂ O ₃ | FeO | MnO | MgO | CaO | Cr ₂ O ₃ | K ₂ O | Na ₂ O | Total | Mg# | Ferrosilite | Wollastonite | Enstatite |
|-------|---------|---------|------------------|------------------|--------------------------------|------|------|------|------|--------------------------------|------------------|-------------------|-------|------|-------------|--------------|-----------|
| 方辉橄榄岩 | HSN-144 | #1 | 51.6 | 0.94 | 3.40 | 9.14 | 0.23 | 14.3 | 19.9 | 0.22 | 0.00 | 0.47 | 100.2 | 73.6 | 15.5 | 42.3 | 42.2 |
| | | #2 | 51.4 | 0.90 | 2.90 | 10.5 | 0.22 | 14.5 | 19.2 | 0.21 | 0.01 | 0.35 | 100.2 | 71.2 | 17.5 | 40.2 | 42.3 |
| | | #3 | 50.6 | 1.01 | 3.63 | 9.66 | 0.24 | 14.4 | 19.7 | 0.23 | 0.00 | 0.41 | 99.9 | 72.7 | 16.3 | 41.5 | 42.2 |
| 橄榄二辉岩 | HSN-519 | #1 | 52.7 | 0.13 | 1.29 | 8.34 | 0.27 | 14.1 | 22.4 | 0.12 | 0.01 | 0.45 | 99.8 | 75.1 | 13.8 | 45.9 | 40.3 |
| | | HSN-330 | #1 | 52.2 | 0.44 | 3.64 | 4.15 | 0.13 | 16.1 | 21.6 | 0.41 | 0.02 | 0.47 | 99.2 | 87.4 | 7.06 | 45.6 |
| 辉长苏长岩 | HSN-69 | #1 | 51.2 | 0.68 | 3.22 | 11.0 | 0.26 | 14.1 | 19.4 | 0.03 | 0.00 | 0.39 | 100.2 | 69.5 | 18.4 | 40.7 | 40.9 |

附表 7 黄山南岩体橄榄石 LA-ICPMS 分析结果

Table 7 LA-ICPMS analytical results of olivines from the Huangshannan intrusion

| 样号 | HSN-298 | | | | | | | | | | | | | | | | | | | |
|-------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 岩性 | 方辉橄榄岩 | | | | | | | | | | | | | | | | | | | |
| 点号 | #1 | #2 | #3 | #4 | #5 | #6 | #7 | #8 | #9 | #10 | #11 | #12 | #13 | #14 | #15 | #16 | #17 | #18 | #19 | #20 |
| Li | 6.36 | 4.69 | 6.03 | 7.25 | 9.41 | 4.82 | 7.64 | 5.04 | 4.63 | 8.92 | 4.95 | 6.31 | 5.50 | 6.48 | 5.65 | 4.89 | 7.68 | 8.12 | 5.64 | 8.48 |
| Mg | 210101 | 206746 | 214107 | 208023 | 214572 | 211381 | 215075 | 209957 | 214489 | 212890 | 205676 | 210786 | 205001 | 213794 | 216055 | 217173 | 226983 | 214762 | 208450 | 210794 |
| Al | 86.0 | 344 | 30.1 | 86.9 | 1.89 | 89.6 | 80.9 | 19.8 | 94.1 | 76.2 | 1883 | 14.3 | 69.1 | 111 | 149 | 99.3 | - | 161 | 82.6 | 2.35 |
| Ca | - | - | - | - | - | - | - | - | - | - | 2774 | - | - | 281 | 286 | 477 | - | - | - | - |
| Sc | 5.86 | 6.00 | 6.20 | 6.46 | 6.37 | 5.98 | 6.29 | 6.21 | 5.53 | 6.23 | 9.00 | 6.08 | 5.92 | 6.09 | 7.37 | 6.70 | 6.70 | 5.86 | 5.78 | 5.47 |
| Ti | 23.9 | 19.5 | 23.0 | 26.8 | 13.1 | 62.2 | 26.9 | 22.1 | 42.1 | 43.5 | 71.3 | 20.5 | 31.0 | 37.1 | 20.2 | 30.4 | 11.2 | 49.2 | 30.7 | 23.5 |
| Mn | 1480 | 1452 | 1514 | 1482 | 1529 | 1473 | 1567 | 1434 | 1504 | 1459 | 1472 | 1501 | 1454 | 1547 | 1496 | 1535 | 1546 | 1519 | 1468 | 1455 |
| Fe | 110909 | 109339 | 110231 | 111654 | 112954 | 114434 | 115273 | 113530 | 112705 | 114986 | 109839 | 114914 | 116480 | 116832 | 114010 | 113746 | 120254 | 117347 | 117332 | 117845 |
| Co | 153 | 159 | 174 | 159 | 168 | 132 | 152 | 129 | 141 | 143 | 161 | 130 | 131 | 153 | 173 | 176 | 133 | 132 | 142 | 137 |
| Ni | 2729 | 2590 | 2671 | 2596 | 2553 | 2637 | 2744 | 1831 | 2463 | 2414 | 2539 | 2581 | 2681 | 2805 | 2584 | 2608 | 1738 | 2489 | 2376 | 2100 |
| Zn | 110 | 112 | 113 | 107 | 102 | 115 | 105 | 109 | 116 | 118 | 133 | 114 | 114 | 114 | 115 | 119 | 118 | 109 | 106 | 118 |
| Fo | 81.3 | 81.3 | 81.7 | 81.1 | 81.4 | 80.9 | 81.1 | 80.9 | 81.4 | 81.0 | 81.1 | 80.8 | 80.2 | 80.8 | 81.3 | 81.4 | 81.3 | 80.8 | 80.3 | 80.4 |
| Mn/Zn | 13.5 | 12.9 | 13.3 | 13.9 | 15.0 | 12.8 | 14.9 | 13.2 | 12.9 | 12.4 | 11.1 | 13.2 | 12.7 | 13.5 | 13.0 | 12.9 | 13.1 | 14.0 | 13.8 | 12.4 |
| 100*Mn/Fe | 1.33 | 1.33 | 1.37 | 1.33 | 1.35 | 1.29 | 1.36 | 1.26 | 1.33 | 1.27 | 1.34 | 1.31 | 1.25 | 1.32 | 1.31 | 1.35 | 1.29 | 1.29 | 1.25 | 1.23 |
| 10000*Zn/Fe | 9.89 | 10.3 | 10.3 | 9.56 | 9.01 | 10.0 | 9.13 | 9.60 | 10.3 | 10.3 | 12.1 | 9.93 | 9.80 | 9.78 | 10.1 | 10.4 | 9.79 | 9.26 | 9.05 | 9.98 |
| 100Ni/Mg | 1.30 | 1.25 | 1.25 | 1.25 | 1.19 | 1.25 | 1.28 | 0.87 | 1.15 | 1.13 | 1.23 | 1.22 | 1.31 | 1.31 | 1.20 | 1.20 | 0.77 | 1.16 | 1.14 | 1.00 |

附表 7 (续)

Table 7 (Continued)

| 样号 | HSN-298 | | | | | | | | | | | | HSN-189 | | | | | HSN-416 | | |
|-------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|---------|--------|--------|
| 岩性 | 方辉橄榄岩 | | | | | | | | | | | | 二辉橄榄岩 | | | | | | | |
| 点号 | #21 | #22 | #23 | #24 | #25 | #26 | #27 | #28 | #29 | #30 | #31 | #32 | #33 | #1 | #2 | #3 | #4 | #5 | #1 | #2 |
| Li | 4.60 | 7.29 | 6.09 | 5.73 | 11.61 | 8.59 | 7.76 | 8.59 | 7.78 | 4.36 | 4.79 | 6.04 | 6.95 | 4.43 | 4.13 | 3.92 | 4.22 | 5.46 | 4.70 | 5.00 |
| Mg | 208103 | 217754 | 214047 | 215067 | 211703 | 215432 | 212862 | 214258 | 212480 | 211997 | 216816 | 215699 | 213335 | 209549 | 209254 | 207027 | 224263 | 211859 | 254465 | 221277 |
| Al | 4.73 | 45.6 | 71.1 | 26.5 | 34.1 | 6.82 | 250 | 34.2 | 8.41 | 431 | 168 | 39.8 | 55.4 | 287 | 104 | 48.7 | 36.0 | 23.7 | 270 | 83.9 |
| Ca | - | - | - | - | - | - | - | - | - | 558 | - | - | - | 529 | 355 | 408 | - | - | - | 312 |
| Sc | 5.62 | 6.23 | 6.71 | 6.50 | 6.24 | 6.56 | 5.89 | 6.03 | 6.70 | 6.57 | 6.14 | 6.27 | 6.07 | 6.33 | 6.18 | 5.98 | 6.54 | 6.33 | 6.01 | 5.64 |
| Ti | 21.7 | 28.1 | 37.8 | 16.1 | 55.1 | 39.9 | 46.2 | 52.8 | 34.7 | 42.1 | 45.6 | 20.4 | 16.5 | 38.1 | 25.8 | 17.2 | 23.5 | 39.3 | 53.1 | 29.0 |
| Mn | 1461 | 1538 | 1525 | 1529 | 1448 | 1450 | 1466 | 1464 | 1461 | 1448 | 1507 | 1508 | 1459 | 1397 | 1373 | 1410 | 1452 | 1391 | 1412 | 1336 |
| Fe | 116948 | 116288 | 114075 | 113492 | 116873 | 116393 | 116573 | 118830 | 117564 | 116382 | 118787 | 119255 | 115679 | 108517 | 107753 | 107978 | 112637 | 112738 | 113805 | 108018 |
| Co | 139 | 171 | 173 | 170 | 134 | 148 | 124 | 125 | 133 | 132 | 144 | 153 | 152 | 188 | 188 | 186 | 195 | 196 | 225 | 192 |
| Ni | 2265 | 2714 | 2659 | 2542 | 2634 | 2484 | 2396 | 2453 | 2537 | 2031 | 2715 | 2572 | 2813 | 2587 | 2599 | 2537 | 2686 | 2639 | 2080 | 1863 |
| Zn | 115 | 117 | 118 | 117 | 113 | 109 | 113 | 112 | 112 | 118 | 113 | 119 | 112 | 99.4 | 96.2 | 91.7 | 96.7 | 92.6 | 71.7 | 89.1 |
| Fo | 80.3 | 81.1 | 81.2 | 81.3 | 80.6 | 81.0 | 80.8 | 80.6 | 80.6 | 80.7 | 80.7 | 80.6 | 80.9 | 81.6 | 81.7 | 81.5 | 82.1 | 81.2 | 83.7 | 82.5 |
| Mn/Zn | 12.6 | 13.1 | 12.9 | 13.1 | 12.9 | 13.3 | 13.0 | 13.1 | 13.0 | 12.2 | 13.4 | 12.7 | 13.0 | 14.1 | 14.3 | 15.4 | 15.0 | 15.0 | 19.7 | 15.0 |
| 100*Mn/Fe | 1.25 | 1.32 | 1.34 | 1.35 | 1.24 | 1.25 | 1.26 | 1.23 | 1.24 | 1.24 | 1.27 | 1.26 | 1.26 | 1.29 | 1.27 | 1.31 | 1.29 | 1.23 | 1.24 | 1.24 |
| 10000*Zn/Fe | 9.87 | 10.1 | 10.3 | 10.3 | 9.63 | 9.38 | 9.71 | 9.42 | 9.54 | 10.2 | 9.50 | 9.94 | 9.69 | 9.16 | 8.93 | 8.49 | 8.58 | 8.22 | 6.30 | 8.25 |
| 100Ni/Mg | 1.09 | 1.25 | 1.24 | 1.18 | 1.24 | 1.15 | 1.13 | 1.14 | 1.19 | 0.96 | 1.25 | 1.19 | 1.32 | 1.23 | 1.24 | 1.23 | 1.20 | 1.25 | 0.82 | 0.84 |

附表 7 (续)

Table 7 (Continued)

| 样号 | HSN-416 | | | | | | | | | | HSN-539 | | | | HSN-513 | | | | | |
|-------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
| 岩性 | 二辉橄榄岩 | | | | | | | | | | 橄榄二辉岩 | | | | | | | | | |
| 点号 | #3 | #4 | #5 | #6 | #7 | #8 | #9 | #10 | #11 | #12 | #1 | #2 | #3 | #4 | #1 | #2 | #3 | #4 | #5 | #6 |
| Li | 6.34 | 3.40 | 3.65 | 5.10 | 4.57 | 3.57 | 4.48 | 3.78 | 5.27 | 3.93 | 3.62 | 3.13 | 3.78 | 3.28 | 3.37 | 3.78 | 3.66 | 4.28 | 3.77 | 4.45 |
| Mg | 216464 | 214082 | 228800 | 245282 | 229753 | 231670 | 227812 | 231777 | 224774 | 225297 | 229129 | 231099 | 233581 | 221874 | 218985 | 221178 | 230493 | 231553 | 233615 | 228594 |
| Al | 376 | 128 | 286 | 62.1 | 206 | 217 | 226 | 165 | 28.6 | 163 | 275 | 227 | 319 | 160 | 534.35 | 93.7 | 145 | 72.3 | 40.7 | 133 |
| Ca | 290 | - | 435 | - | 346 | - | 420 | 522 | 407 | - | 1112 | 257 | 426 | 370 | 1383 | 341 | 541 | 222 | - | - |
| Sc | 5.80 | 5.71 | 6.36 | 5.82 | 5.96 | 5.96 | 5.87 | 6.62 | 5.85 | 6.97 | 7.18 | 5.69 | 5.99 | 6.63 | 7.59 | 6.39 | 6.78 | 6.53 | 7.34 | 6.93 |
| Ti | 21.4 | 17.6 | 40.1 | 27.9 | 34.2 | 33.6 | 26.5 | 48.9 | 27.3 | 21.8 | 44.7 | 30.8 | 42.8 | 42.2 | 40.6 | 30.1 | 32.5 | 25.4 | 63.0 | 50.0 |
| Mn | 1366 | 1395 | 1420 | 1459 | 1408 | 1426 | 1395 | 1407 | 1397 | 1366 | 1311 | 1308 | 1355 | 1215 | 1308 | 1330 | 1406 | 1374 | 1359 | 1208 |
| Fe | 113408 | 116473 | 109941 | 114743 | 109108 | 111790 | 109773 | 108894 | 113418 | 111702 | 102420 | 98583 | 101380 | 103176 | 102841 | 103191 | 105183 | 103249 | 101970 | 95912 |
| Co | 171 | 154 | 205 | 202 | 196 | 211 | 205 | 191 | 181 | 191 | 174 | 169 | 174 | 199 | 189 | 192 | 193 | 190 | 195 | 203 |
| Ni | 1454 | 1451 | 1958 | 1889 | 2033 | 1942 | 1901 | 1766 | 1818 | 1755 | 2094 | 1882 | 2062 | 1880 | 2512 | 2550 | 2605 | 2558 | 2588 | 2687 |
| Zn | 106 | 104 | 93.7 | 97.2 | 92.5 | 106 | 101 | 102 | 87.6 | 96.8 | 55.7 | 63.5 | 70.5 | 87.8 | 77.9 | 72.2 | 81.8 | 78.1 | 83.1 | 75.9 |
| Fo | 81.4 | 80.9 | 82.7 | 83.1 | 82.9 | 82.6 | 82.7 | 83.0 | 82.0 | 82.2 | 83.7 | 84.3 | 84.1 | 83.2 | 83.0 | 83.1 | 83.4 | 83.7 | 84.0 | 84.6 |
| Mn/Zn | 12.9 | 13.4 | 15.2 | 15.0 | 15.2 | 13.5 | 13.8 | 13.8 | 15.9 | 14.1 | 23.5 | 20.6 | 19.2 | 13.8 | 16.8 | 18.4 | 17.2 | 17.6 | 16.4 | 15.9 |
| 100*Mn/Fe | 1.20 | 1.20 | 1.29 | 1.27 | 1.29 | 1.28 | 1.27 | 1.29 | 1.23 | 1.22 | 1.28 | 1.33 | 1.34 | 1.18 | 1.27 | 1.29 | 1.34 | 1.33 | 1.33 | 1.26 |
| 10000*Zn/Fe | 9.37 | 8.96 | 8.52 | 8.47 | 8.48 | 9.47 | 9.19 | 9.37 | 7.73 | 8.67 | 5.44 | 6.44 | 6.95 | 8.51 | 7.57 | 7.00 | 7.78 | 7.56 | 8.15 | 7.91 |
| 100Ni/Mg | 0.67 | 0.68 | 0.86 | 0.77 | 0.88 | 0.84 | 0.83 | 0.76 | 0.81 | 0.78 | 0.91 | 0.81 | 0.88 | 0.85 | 1.15 | 1.15 | 1.13 | 1.10 | 1.11 | 1.18 |

附表 7 (续)

Table 7 (Continued)

| 样号 | HSN-513 | | | | | | HSN-567 | | |
|-------------|---------|--------|--------|--------|--------|--------|-----------|--------|--------|
| 岩性 | 橄榄二辉岩 | | | | | | (橄榄)辉长苏长岩 | | |
| 点号 | #7 | #8 | #9 | #10 | #11 | #12 | #1 | #2 | #3 |
| Li | 4.69 | 3.62 | 3.96 | 4.08 | 3.73 | 4.16 | 4.35 | 4.51 | 2.89 |
| Mg | 230298 | 220893 | 231145 | 237359 | 233204 | 237799 | 230721 | 229771 | 227632 |
| Al | 165 | 192 | 284 | 230 | 550 | 82.2 | 71.9 | 86.2 | 187 |
| Ca | - | 543 | 219 | 325 | 725 | - | - | 222 | - |
| Sc | 6.62 | 7.14 | 6.36 | 6.43 | 7.61 | 6.25 | 7.00 | 7.23 | 6.32 |
| Ti | 68.2 | 22.7 | 40.6 | 34.0 | 41.8 | 27.1 | 16.9 | 25.9 | 39.0 |
| Mn | 1341 | 1353 | 1310 | 1443 | 1434 | 1310 | 1422 | 1383 | 1179 |
| Fe | 105558 | 102931 | 104328 | 105238 | 103561 | 102067 | 102716 | 102251 | 98838 |
| Co | 203 | 183 | 200 | 192 | 182 | 194 | 193 | 194 | 197 |
| Ni | 2579 | 2494 | 2677 | 2635 | 2498 | 2506 | 1908 | 1942 | 1997 |
| Zn | 75.8 | 82.6 | 100 | 86.3 | 78.2 | 76.9 | 62.6 | 71.9 | 94.7 |
| Fo | 83.4 | 83.1 | 83.6 | 83.8 | 83.8 | 84.3 | 83.8 | 83.8 | 84.1 |
| Mn/Zn | 17.7 | 16.4 | 13.1 | 16.7 | 18.3 | 17.0 | 22.7 | 19.2 | 12.4 |
| 100*Mn/Fe | 1.27 | 1.31 | 1.26 | 1.37 | 1.38 | 1.28 | 1.38 | 1.35 | 1.19 |
| 10000*Zn/Fe | 7.18 | 8.03 | 9.57 | 8.20 | 7.55 | 7.53 | 6.09 | 7.03 | 9.58 |
| 100Ni/Mg | 1.12 | 1.13 | 1.16 | 1.11 | 1.07 | 1.05 | 0.83 | 0.85 | 0.88 |