Table 5-1 Mica compositions(wt%) for some early Paleozoic gneissic granites

in the Wuyi and Wugong domains

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | JX04 | JX04 | JX04 | JX04 | JX04 | JX14 | JX14 | JX14 | JX14 | JX35 | JX35 | JX35 | JX36 | JX39 |
| spot | Bi1.1 | Bi2.1 | Bi3.1 | Bi4.1 | Bi5.1 | Bi1.1 | Bi2.1 | Bi2.2 | Bi3.1 | Bi1.1 | Bi2.1 | Bi3.1 | Bi1.1 | Bi1.1 |
| SiO2 | 34.61 | 35.35 | 34.35 | 34.97 | 35.22 | 36.37 | 36.09 | 35.91 | 35.69 | 36.18 | 35.66 | 36.06 | 35.81 | 35.64 |
| TiO2 | 3.08 | 3.15 | 3.09 | 3.28 | 3.27 | 3.87 | 3.74 | 3.85 | 3.68 | 2.21 | 2.42 | 2.47 | 2.83 | 2.45 |
| Al2O3 | 18.27 | 18.92 | 18.17 | 18.56 | 18.28 | 18.24 | 18.33 | 18.11 | 18.16 | 18.88 | 19.08 | 18.76 | 18.50 | 18.24 |
| FeO | 21.93 | 22.26 | 22.81 | 22.56 | 21.73 | 20.07 | 19.88 | 20.22 | 20.24 | 19.08 | 19.68 | 19.60 | 20.33 | 20.10 |
| MnO | 0.31 | 0.29 | 0.33 | 0.35 | 0.34 | 0.09 | 0.11 | 0.14 | 0.10 | 0.57 | 0.56 | 0.55 | 0.50 | 0.37 |
| MgO | 6.61 | 6.54 | 6.49 | 6.44 | 6.52 | 8.84 | 9.08 | 8.99 | 8.93 | 8.68 | 8.63 | 8.77 | 7.54 | 9.81 |
| CaO | 0.08 | 0.00 | - | - | 0.10 | - | - | - | - | - | - | - | - | - |
| Na2O | 0.08 | 0.07 | 0.07 | 0.06 | 0.11 | 0.11 | 0.09 | 0.10 | 0.07 | 0.07 | 0.08 | 0.06 | 0.06 | 0.05 |
| K2O | 9.01 | 9.58 | 9.55 | 9.62 | 9.12 | 9.70 | 9.65 | 9.68 | 9.90 | 9.33 | 9.74 | 9.69 | 9.54 | 9.73 |
| F |  |  |  |  |  |  |  |  |  | - | 0.14 | - |  |  |
| Cl |  | 0.005 | 0.002 | 0.008 | 0.006 |  | 0.004 |  | 0.010 | 0.003 | 0.003 | 0.008 | 0.003 |  |
| Total | 93.97 | 96.16 | 94.84 | 95.86 | 94.68 | 97.28 | 96.97 | 97.00 | 96.77 | 95.00 | 95.98 | 95.95 | 95.11 | 96.40 |
| Si | 5.419 | 5.412 | 5.373 | 5.393 | 5.462 | 5.438 | 5.413 | 5.399 | 5.388 | 5.510 | 5.411 | 5.465 | 5.494 | 5.400 |
| AlⅣ | 2.581 | 2.588 | 2.627 | 2.607 | 2.538 | 2.562 | 2.587 | 2.601 | 2.612 | 2.490 | 2.589 | 2.535 | 2.506 | 2.600 |
| AlⅥ | 0.791 | 0.828 | 0.722 | 0.767 | 0.802 | 0.653 | 0.651 | 0.608 | 0.619 | 0.898 | 0.822 | 0.815 | 0.840 | 0.656 |
| Ti | 0.362 | 0.363 | 0.363 | 0.380 | 0.382 | 0.435 | 0.422 | 0.435 | 0.417 | 0.253 | 0.276 | 0.281 | 0.327 | 0.279 |
| Fe3+ | 0.556 | 0.538 | 0.449 | 0.505 | 0.596 | 0.540 | 0.519 | 0.496 | 0.459 | 0.541 | 0.472 | 0.477 | 0.552 | 0.359 |
| Fe2+ | 2.315 | 2.312 | 2.536 | 2.405 | 2.222 | 1.970 | 1.974 | 2.046 | 2.096 | 1.889 | 2.025 | 2.007 | 2.056 | 2.188 |
| Mn | 0.041 | 0.037 | 0.044 | 0.046 | 0.045 | 0.011 | 0.013 | 0.018 | 0.012 | 0.074 | 0.072 | 0.071 | 0.065 | 0.048 |
| Mg | 1.543 | 1.493 | 1.513 | 1.479 | 1.506 | 1.970 | 2.029 | 2.015 | 2.011 | 1.970 | 1.951 | 1.981 | 1.723 | 2.216 |
| Ca | 0.013 | 0.000 | 0.000 | 0.000 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Na | 0.024 | 0.020 | 0.020 | 0.019 | 0.033 | 0.031 | 0.025 | 0.030 | 0.020 | 0.022 | 0.024 | 0.017 | 0.017 | 0.015 |
| K | 1.799 | 1.872 | 1.905 | 1.893 | 1.804 | 1.851 | 1.847 | 1.856 | 1.906 | 1.812 | 1.885 | 1.873 | 1.868 | 1.881 |
| Mf | 0.35 | 0.34 | 0.33 | 0.33 | 0.34 | 0.44 | 0.45 | 0.44 | 0.44 | 0.44 | 0.43 | 0.44 | 0.39 | 0.46 |
| *P*(108Pa) | 3.69 | 3.82 | 3.62 | 3.69 | 3.59 | 3.21 | 3.28 | 3.19 | 3.26 | 3.74 | 3.81 | 3.62 | 3.61 | 3.34 |
| Sample | JX39 | JX39 | JX52 | JX52 | JX52 | JX66-5 | JX66-5 | JX66-5 | JX66-5 | CQ3-2 | CQ3-2 | CQ3-2 | CQ3-2 | JX71 |
| spot | Bi2.1 | Bi3.1 | Bi1.1 | Bi2.1 | Bi3.1 | Bi1.1 | Bi2.1 | Bi3.1 | Bi3.2 | Bi1.1 | Bi2.1 | Bi3.1 | Bi4.1 | Bi1.1 |
| SiO2 | 35.70 | 35.87 | 35.12 | 35.10 | 35.57 | 36.40 | 36.13 | 36.17 | 35.87 | 35.80 | 36.35 | 35.30 | 36.23 | 37.74 |
| TiO2 | 2.32 | 3.34 | 2.46 | 2.42 | 2.53 | 3.39 | 3.39 | 3.33 | 2.73 | 3.18 | 3.28 | 3.07 | 3.30 | 2.23 |
| Al2O3 | 17.88 | 18.12 | 17.09 | 16.96 | 16.87 | 16.79 | 16.86 | 16.94 | 16.29 | 18.18 | 18.16 | 18.10 | 18.63 | 16.66 |
| FeO | 19.43 | 19.70 | 21.99 | 21.90 | 21.77 | 20.95 | 21.24 | 20.52 | 21.68 | 20.49 | 20.73 | 20.56 | 20.07 | 18.54 |
| MnO | 0.36 | 0.41 | 0.50 | 0.51 | 0.45 | 0.45 | 0.47 | 0.40 | 0.52 | 0.34 | 0.35 | 0.36 | 0.40 | 0.44 |
| MgO | 10.68 | 9.25 | 8.68 | 8.81 | 8.46 | 8.52 | 8.55 | 8.30 | 9.34 | 7.48 | 7.67 | 7.88 | 7.64 | 10.62 |
| CaO | - | - | - | - | 0.03 | - | 0.01 | 0.01 | - | 0.09 | 0.06 | 0.07 | 0.05 | 0.01 |
| Na2O | 0.09 | 0.10 | 0.05 | 0.05 | 0.02 | 0.10 | 0.03 | 0.12 | 0.04 | 0.06 | 0.08 | 0.04 | 0.09 | 0.03 |
| K2O | 9.82 | 9.98 | 9.70 | 9.66 | 9.81 | 9.63 | 9.76 | 9.58 | 9.81 | 9.26 | 9.34 | 9.49 | 9.40 | 9.81 |
| F |  | 0.401 |  | 0.3 |  |  |  |  |  |  |  |  |  |  |
| Cl |  | 0.017 | 0.008 | 0.001 | 0.008 | 0.004 | 0.030 | 0.029 | 0.042 | 0.006 | 0.002 | 0.007 | 0.011 | 0.021 |
| Total | 96.28 | 97.18 | 95.60 | 95.72 | 95.51 | 96.23 | 96.48 | 95.37 | 96.31 | 94.88 | 96.00 | 94.87 | 95.81 | 96.08 |

Cations calculated based on 22 oxygens；*P*(108Pa)=3.03×TAl﹣6.53(±0.33)(Etsuo et al., 2007)；

Mf=Mg/(Mg+Fe2++Fe3++Mn)

Table 5-1(Continued).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | JX39 | JX39 | JX52 | JX52 | JX52 | JX66-5 | JX66-5 | JX66-5 | JX66-5 | CQ3-2 | CQ3-2 | CQ3-2 | CQ3-2 | JX71 |
| spot | Bi2.1 | Bi3.1 | Bi1.1 | Bi2.1 | Bi3.1 | Bi1.1 | Bi2.1 | Bi3.1 | Bi3.2 | Bi1.1 | Bi2.1 | Bi3.1 | Bi4.1 | Bi1.1 |
| Si | 5.404 | 5.386 | 5.435 | 5.423 | 5.500 | 5.545 | 5.506 | 5.549 | 5.500 | 5.501 | 5.519 | 5.444 | 5.497 | 5.676 |
| AlⅣ | 2.596 | 2.614 | 2.565 | 2.577 | 2.500 | 2.455 | 2.494 | 2.451 | 2.500 | 2.499 | 2.481 | 2.556 | 2.503 | 2.324 |
| AlⅥ | 0.595 | 0.592 | 0.552 | 0.512 | 0.574 | 0.560 | 0.534 | 0.611 | 0.445 | 0.795 | 0.769 | 0.735 | 0.828 | 0.628 |
| Ti | 0.264 | 0.377 | 0.287 | 0.281 | 0.294 | 0.388 | 0.389 | 0.384 | 0.315 | 0.367 | 0.374 | 0.356 | 0.377 | 0.252 |
| Fe3+ | 0.303 | 0.494 | 0.316 | 0.363 | 0.362 | 0.491 | 0.459 | 0.512 | 0.328 | 0.600 | 0.603 | 0.507 | 0.618 | 0.462 |
| Fe2+ | 2.158 | 1.980 | 2.530 | 2.467 | 2.453 | 2.178 | 2.247 | 2.120 | 2.453 | 2.033 | 2.028 | 2.145 | 1.928 | 1.869 |
| Mn | 0.047 | 0.052 | 0.066 | 0.067 | 0.059 | 0.057 | 0.060 | 0.051 | 0.067 | 0.044 | 0.044 | 0.047 | 0.051 | 0.055 |
| Mg | 2.410 | 2.070 | 2.003 | 2.029 | 1.949 | 1.935 | 1.943 | 1.897 | 2.135 | 1.715 | 1.736 | 1.813 | 1.727 | 2.381 |
| Ca | 0.000 | 0.000 | 0.000 | 0.000 | 0.005 | 0.000 | 0.001 | 0.001 | 0.000 | 0.014 | 0.010 | 0.011 | 0.008 | 0.001 |
| Na | 0.025 | 0.028 | 0.016 | 0.014 | 0.006 | 0.028 | 0.010 | 0.035 | 0.010 | 0.017 | 0.022 | 0.011 | 0.025 | 0.007 |
| K | 1.897 | 1.912 | 1.915 | 1.904 | 1.934 | 1.871 | 1.897 | 1.876 | 1.919 | 1.816 | 1.808 | 1.868 | 1.819 | 1.881 |
| Mf | 0.49 | 0.45 | 0.41 | 0.41 | 0.40 | 0.42 | 0.41 | 0.41 | 0.43 | 0.39 | 0.39 | 0.40 | 0.40 | 0.50 |
| *P*(108Pa) | 3.14 | 3.19 | 2.92 | 2.83 | 2.79 | 2.61 | 2.65 | 2.75 | 2.39 | 3.45 | 3.32 | 3.44 | 3.57 | 2.42 |
| Sample | JX71 | JX04 | JX04 | JX14 | JX14 | JX36 | JX52 | JX66-5 | JX66-5 | JX66-5 | CQ3-2 | CQ3-2 |  |  |
| spot | Bi2.1 | Ms1.1 | Ms2.1 | Ms1.1 | Ms2.1 | Ms1.1 | Ms1.1 | Ms1.1 | Ms2.1 | Ms2.2 | Ms1.1 | Ms2.1 |  |  |
| SiO2 | 37.75 | 46.28 | 46.75 | 46.94 | 47.70 | 47.28 | 45.49 | 46.58 | 45.87 | 46.09 | 48.27 | 48.80 |  |  |
| TiO2 | 2.02 | 0.99 | 0.92 | 0.85 | 0.90 | 0.70 | 0.06 | 1.11 | 1.32 | 1.24 | 1.12 | 1.03 |  |  |
| Al2O3 | 16.76 | 34.29 | 33.83 | 34.73 | 34.96 | 34.17 | 32.60 | 30.39 | 30.96 | 30.65 | 35.31 | 34.79 |  |  |
| FeO | 19.42 | 1.36 | 1.57 | 1.12 | 1.21 | 1.29 | 2.28 | 3.16 | 3.10 | 3.07 | 1.66 | 2.19 |  |  |
| MnO | 0.49 | - | 0.04 | 0.01 | 0.01 | 0.01 | 0.01 | 0.04 | 0.03 | 0.02 | 0.04 | 0.02 |  |  |
| MgO | 10.80 | 0.64 | 0.78 | 0.57 | 0.73 | 0.87 | 0.38 | 1.45 | 1.09 | 1.27 | 1.32 | 1.66 |  |  |
| CaO | - | 0.002 | 0.01 | - | 0.01 | - | - | - | - | 0.003 | 0.01 | 0.05 |  |  |
| Na2O | 0.06 | 0.53 | 0.47 | 0.49 | 0.54 | 0.52 | 0.19 | 0.35 | 0.33 | 0.34 | 0.30 | 0.23 |  |  |
| K2O | 10.04 | 10.70 | 10.57 | 10.49 | 10.02 | 10.00 | 10.55 | 10.84 | 10.89 | 10.82 | 7.55 | 6.60 |  |  |
| F |  | 0.022 | 0.004 |  |  |  |  |  |  |  |  |  |  |  |
| Cl | 0.042 | 0.005 |  |  |  | 0.011 | 0.015 |  |  | 0.015 |  | 0.004 |  |  |
| Total | 97.39 | 94.81 | 94.95 | 95.19 | 96.09 | 94.83 | 91.57 | 93.93 | 93.58 | 93.51 | 95.58 | 95.38 |  |  |
| Si | 5.633 | 6.203 | 6.256 | 6.240 | 6.261 | 6.293 | 6.330 | 6.379 | 6.308 | 6.339 | 6.278 | 6.335 |  |  |
| AlⅣ | 2.367 | 1.797 | 1.744 | 1.760 | 1.739 | 1.707 | 1.670 | 1.621 | 1.692 | 1.661 | 1.722 | 1.665 |  |  |
| AlⅥ | 0.581 | 3.620 | 3.591 | 3.681 | 3.669 | 3.653 | 3.676 | 3.284 | 3.327 | 3.307 | 3.690 | 3.659 |  |  |
| Ti | 0.227 | 0.099 | 0.092 | 0.085 | 0.089 | 0.070 | 0.006 | 0.115 | 0.136 | 0.128 | 0.109 | 0.101 |  |  |
| Fe3+ | 0.374 | 0.152 | 0.175 | 0.124 | 0.133 | 0.143 | 0.265 | 0.362 | 0.356 | 0.353 | 0.181 | 0.238 |  |  |
| Fe2+ | 2.050 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |  |  |
| Mn | 0.062 | 0.000 | 0.005 | 0.001 | 0.001 | 0.001 | 0.001 | 0.004 | 0.004 | 0.002 | 0.005 | 0.002 |  |  |
| Mg | 2.402 | 0.128 | 0.156 | 0.113 | 0.143 | 0.172 | 0.079 | 0.296 | 0.224 | 0.261 | 0.256 | 0.320 |  |  |
| Ca | 0.000 | 0.000 | 0.001 | 0.000 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.007 |  |  |
| Na | 0.018 | 0.137 | 0.122 | 0.126 | 0.138 | 0.133 | 0.052 | 0.093 | 0.087 | 0.090 | 0.074 | 0.057 |  |  |
| K | 1.912 | 1.829 | 1.805 | 1.779 | 1.678 | 1.698 | 1.872 | 1.894 | 1.911 | 1.898 | 1.253 | 1.094 |  |  |
| Mf | 0.49 | 0.46 | 0.46 | 0.47 | 0.52 | 0.55 | 0.23 | 0.45 | 0.38 | 0.42 | 0.58 | 0.57 |  |  |
| *P*(108Pa) | 2.40 |  |  |  |  |  |  |  |  |  |  |  |  |  |

Cations calculated based on 22 oxygens；*P*(108Pa)=3.03×TAl﹣6.53(±0.33)(Etsuo et al., 2007)；Mf=Mg/(Mg+Fe2++Fe3++Mn)