

Table 1. Bulk element compositions of symplectite-bearing peridotites.

| Sample Lithology | AJE 1049 grt hz | AJE 1171 c hz | Bf 6 f hz | Bf 16 c hz | Bf 24 c hz | Bf 106 metas. | Bf 110 metas. | Bf 116 metas. | Bf 122 metas. |
|--------------------------------|--------------------|------------------|--------------|---------------|---------------|------------------|------------------|------------------|------------------|
| Major elements in wt % oxide | | | | | | | | | |
| SiO ₂ | 46.96 | 45.78 | 44.16 | 47.30 | 46.28 | 46.87 | 45.44 | 45.31 | 48.84 |
| TiO ₂ | 0.01 | 0.15 | 0.00 | 0.01 | 0.01 | 0.03 | 0.05 | 0.03 | 0.01 |
| Al ₂ O ₃ | 0.35 | 1.06 | 0.73 | 1.09 | 1.05 | 1.15 | 1.11 | 0.78 | 1.27 |
| Fe ₂ O ₃ | 6.06 | 7.08 | 7.20 | 6.41 | 6.75 | 6.40 | 6.85 | 6.58 | 6.32 |
| MnO | 0.11 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.12 | 0.10 |
| MgO | 44.63 | 42.66 | 46.20 | 43.99 | 43.86 | 42.94 | 44.33 | 45.20 | 41.52 |
| CaO | 0.39 | 0.83 | 0.25 | 0.38 | 0.48 | 0.44 | 0.44 | 0.23 | 0.82 |
| Na ₂ O | 0.24 | 0.15 | 0.15 | 0.15 | 0.16 | 0.21 | 0.27 | 0.06 | 0.20 |
| K ₂ O | 0.05 | 0.93 | 0.02 | 0.03 | 0.03 | 0.43 | 0.13 | 0.63 | 0.07 |
| P ₂ O ₅ | 0.03 | 0.04 | 0.00 | 0.02 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 |
| Total | 98.83 | 98.80 | 98.83 | 99.50 | 98.75 | 98.60 | 98.76 | 98.96 | 99.17 |
| Trace elements in ppm | | | | | | | | | |
| Nb | 3.6 | 2.8 | 1.3 | 3.7 | 1.2 | 3.3 | 2.1 | 6.2 | 7.6 |
| Zr | 6 | 15 | 1 | 2 | 2 | 5 | 3 | 4 | 4 |
| Y | 0.2 | 0.4 | 0.2 | 0.4 | 0.2 | 0.5 | 0.1 | 0.1 | 0.1 |
| Sr | 43 | 68 | 25 | 48 | 12 | 48 | 26 | 26 | 82 |
| U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rb | 2.2 | 33.9 | 0.9 | 0.9 | 1.1 | 13 | 4.5 | 21.3 | 1.9 |
| Th | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pb | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| Ga | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| Zn | 38 | 48 | 40 | 35 | 38 | 39 | 38 | 38 | 37 |
| Ni | 2256 | 2092 | 2294 | 2101 | 2256 | 1968 | 2181 | 2198 | 1553 |
| Cr | 1212 | 2101 | 1964 | 2688 | 2219 | 2930 | 2360 | 2325 | 3083 |
| V | 19 | 24 | 18 | 25 | 22 | 30 | 25 | 21 | 28 |
| Ce | 12 | 8 | 2 | 20 | 2 | 4 | 9 | 2 | 6 |
| Ba | 31 | 84 | 20 | 54 | 14 | 238 | 33 | 64 | 56 |

Table 1. Bulk chemical compositions of symplectite-bearing peridotites continued

| Sample Lithology | Bf 126 grt hz | Bf 127 f hz | Bf 144 grt hz | Kf 2 c hz | Pl 33 f hz | Pl 34 metas. | Pl 40 metas | Pl 45 c hz | Pl 47 f hz |
|--------------------------------|------------------|----------------|------------------|--------------|---------------|-----------------|----------------|---------------|---------------|
| Major elements wt % oxides | | | | | | | | | |
| SiO ₂ | 45.73 | 45.69 | 46.10 | 46.28 | 45.51 | 45.96 | 45.74 | 46.79 | 45.76 |
| TiO ₂ | 0.12 | 0.01 | 0.02 | 0.01 | 0.00 | 0.06 | 0.09 | 0.01 | 0.00 |
| Al ₂ O ₃ | 0.37 | 0.91 | 0.35 | 1.05 | 0.59 | 1.04 | 1.07 | 1.07 | 1.28 |
| Fe ₂ O ₃ | 6.30 | 7.17 | 6.27 | 6.75 | 6.77 | 6.90 | 6.74 | 6.56 | 6.61 |
| MnO | 0.11 | 0.11 | 0.08 | 0.12 | 0.12 | 0.13 | 0.12 | 0.12 | 0.12 |
| MgO | 45.61 | 45.01 | 45.89 | 43.86 | 45.19 | 44.25 | 43.70 | 43.21 | 44.53 |
| CaO | 0.24 | 0.34 | 0.20 | 0.48 | 0.14 | 0.28 | 0.85 | 0.47 | 0.39 |
| Na ₂ O | 0.21 | 0.18 | 0.23 | 0.16 | 0.17 | 0.21 | 0.10 | 0.18 | 0.08 |
| K ₂ O | 0.02 | 0.01 | 0.04 | 0.03 | 0.01 | 0.68 | 0.70 | 0.03 | 0.02 |
| P ₂ O ₅ | 0.03 | 0.01 | 0.03 | 0.01 | 0.00 | 0.01 | 0.02 | 0.02 | 0.01 |
| Total | 98.74 | 99.44 | 99.21 | 98.75 | 98.50 | 99.52 | 99.13 | 98.46 | 98.06 |
| Trace elements in ppm | | | | | | | | | |
| Nb | 4.8 | 1 | 4.1 | 2.4 | 0.4 | 4.9 | 5.0 | 1.8 | 1.5 |
| Zr | 8 | 1 | 7 | 3 | 0 | 3 | 7 | 2 | 0 |
| Y | 0.4 | 0.6 | 0.7 | 0.1 | 0 | 0.3 | 0.6 | 0.1 | 0.2 |
| Sr | 27 | 23 | 34 | 20 | 7 | 31 | 42 | 24 | 13 |
| U | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rb | 1.2 | 0.7 | 1.8 | 1.3 | 1 | 20.3 | 19.1 | 1.6 | 1.8 |
| Th | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Pb | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ga | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| Zn | 38 | 38 | 36 | 37 | 36 | 44 | 38 | 37 | 37 |
| Ni | 2286 | 2198 | 2287 | 1964 | 2162 | 2068 | 2024 | 2078 | 2185 |
| Cr | 1839 | 2342 | 1191 | 3084 | 2374 | 2600 | 2449 | 2445 | 2403 |
| V | 17 | 23 | 17 | 31 | 20 | 24 | 28 | 21 | 23 |
| Ce | 7 | 3 | 8 | 15 | 0 | 7 | 5 | 5 | 2 |
| Ba | 17 | 34 | 16 | 27 | 1 | 207 | 264 | 25 | 12 |

Table 1. Bulk chemical compositions of symplectite-bearing peridotites continued

| Sample Lithology | Pl 48 f hz | Pl 67 c hz | Pl 97 f hz |
|--------------------------------|---------------|---------------|---------------|
| Major elements as wt % oxides | | | |
| SiO ₂ | 44.66 | 45.97 | 47.08 |
| TiO ₂ | 0.00 | 0.00 | 0.01 |
| Al ₂ O ₃ | 0.94 | 1.13 | 1.28 |
| Fe ₂ O ₃ | 7.03 | 6.75 | 6.52 |
| MnO | 0.12 | 0.12 | 0.12 |
| MgO | 44.88 | 44.09 | 43.94 |
| CaO | 0.34 | 0.41 | 0.46 |
| Na ₂ O | 0.07 | 0.23 | 0.15 |
| K ₂ O | 0.01 | 0.02 | 0.01 |
| P ₂ O ₅ | 0.00 | 0.02 | 0.00 |
| Total | 98.05 | 98.74 | 99.57 |
| Trace elements in ppm | | | |
| Nb | 0.6 | 1.7 | 0.1 |
| Zr | 1 | 1 | 0 |
| Y | 0.1 | 0.3 | 0 |
| Sr | 7 | 27 | 12 |
| U | 0 | 0 | 0 |
| Rb | 1 | 1.3 | 1 |
| Th | 0 | 0 | 0 |
| Pb | 0 | 0 | 0 |
| Ga | 0 | 0 | 0 |
| Zn | 39 | 38 | 37 |
| Ni | 2342 | 2199 | 2075 |
| Cr | 2145 | 2184 | 2638 |
| V | 21 | 22 | 27 |
| Ce | 0 | 2 | 0 |
| Ba | 0 | 12 | 5 |

