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Mineralogical evolution of the northern Bossoroca ophiolite, São Gabriel terrane

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Supplementary Table 14. Electron microprobe analyses of apatite. La₂O₃, Ce₂O₃, Pr₂O₃, Nd₂O₃ below detection limit.

Tourmalinite, sample BO19, mount 2.

| Analysis | 55 | 56 | 58 |
|--|--------|--------|--------|
| CaO | 55.33 | 55.20 | 55.39 |
| Na ₂ O | 0.11 | 0.06 | 0.04 |
| MnO | 0.07 | 0.05 | 0.07 |
| FeO | 0.32 | 0.18 | 0.54 |
| P ₂ O ₅ | 41.45 | 42.15 | 40.78 |
| SiO ₂ | 0.04 | 0.02 | 0.52 |
| Cl | 0.01 | 0.01 | 0.00 |
| F | 1.27 | 1.65 | 1.67 |
| Total | 98.06 | 98.62 | 98.31 |
| Structural formulae of apatite based on 25 O | | | |
| Ca | 9.910 | 9.775 | 9.898 |
| Na | 0.036 | 0.019 | 0.013 |
| Mn | 0.010 | 0.007 | 0.010 |
| Fe | 0.045 | 0.025 | 0.075 |
| P | 5.867 | 5.898 | 5.758 |
| Si | 0.007 | 0.003 | 0.087 |
| Cl | 0.003 | 0.003 | 0.000 |
| F | 0.671 | 0.862 | 0.881 |
| OH | 0.326 | 0.135 | 0.119 |
| Total | 16.874 | 16.727 | 16.842 |

Chloritite, sample BO17.

| Analysis | 29 | 30 | 31 | 32 | 33 | 34 |
|-------------------------------|-------|-------|-------|-------|-------|-------|
| CaO | 57.06 | 57.62 | 57.36 | 57.12 | 56.99 | 57.27 |
| Na ₂ O | 0.09 | 0.11 | 0.07 | 0.06 | 0.08 | 0.09 |
| MnO | 0.13 | 0.11 | 0.06 | 0.05 | 0.10 | 0.05 |
| FeO | 0.02 | 0.16 | 0.10 | 0.04 | 0.02 | 0.05 |
| P ₂ O ₅ | 40.66 | 40.15 | 40.60 | 40.90 | 40.05 | 40.42 |
| SiO ₂ | 0.00 | 0.03 | 0.05 | 0.06 | 0.05 | 0.00 |
| Cl | 0.00 | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 |
| F | 1.54 | 1.50 | 1.02 | 1.50 | 1.40 | 1.19 |
| Total | 98.85 | 99.06 | 98.84 | 99.10 | 98.11 | 98.58 |

Structural formulae of apatite based on 25 O

| | | | | | | |
|----|--------|--------|--------|--------|--------|--------|
| Ca | 10.200 | 10.324 | 10.290 | 10.173 | 10.291 | 10.297 |
| Na | 0.029 | 0.036 | 0.023 | 0.019 | 0.026 | 0.029 |
| Mn | 0.018 | 0.016 | 0.009 | 0.007 | 0.014 | 0.007 |
| Fe | 0.003 | 0.022 | 0.014 | 0.006 | 0.003 | 0.007 |
| P | 5.743 | 5.685 | 5.755 | 5.756 | 5.715 | 5.743 |
| Si | 0.000 | 0.005 | 0.008 | 0.010 | 0.008 | 0.000 |

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| | | | | | | |
|-------|--------|--------|--------|--------|--------|--------|
| Cl | 0.000 | 0.003 | 0.003 | 0.000 | 0.003 | 0.003 |
| F | 0.813 | 0.793 | 0.540 | 0.789 | 0.746 | 0.632 |
| OH | 0.187 | 0.204 | 0.457 | 0.211 | 0.251 | 0.366 |
| Total | 16.993 | 17.088 | 17.099 | 16.971 | 17.058 | 17.083 |

Chloritite, sample BO17.

| Analysis | 23 | 24 | 25 |
|--|--------|--------|--------|
| CaO | 54.7 | 56.07 | 54.70 |
| Na ₂ O | 0.04 | 0.03 | 0.06 |
| MnO | 0.06 | 0.01 | 0.05 |
| FeO | 0.05 | 0.03 | 0.11 |
| P ₂ O ₅ | 42.98 | 41.57 | 42.78 |
| SiO ₂ | 0.02 | 0.03 | 0.04 |
| Cl | 0.02 | 0.00 | 0.02 |
| F | 1.60 | 1.50 | 1.41 |
| Total | 98.79 | 98.61 | 98.57 |
| Structural formulae of apatite based on 25 O | | | |
| Ca | 9.621 | 9.976 | 9.660 |
| Na | 0.013 | 0.010 | 0.019 |
| Mn | 0.008 | 0.001 | 0.007 |
| Fe | 0.007 | 0.004 | 0.015 |
| P | 5.973 | 5.844 | 5.970 |
| Si | 0.003 | 0.005 | 0.007 |
| Cl | 0.006 | 0.000 | 0.006 |
| F | 0.831 | 0.788 | 0.735 |
| OH | 0.164 | 0.212 | 0.259 |
| Total | 16.625 | 16.840 | 16.678 |