Table 2. (cont.)

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**Atoms per 29 O**

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Superscripts denote the number of analyses averaged per report.
Boron is assumed present in stoichiometric proportion.
FeO* - total iron as FeO.
Table 2. (cont.)

tourmaline

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Atoms per 29 O

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<p>| XMg/XFe | 0.05                | 0.05                | 0.47                    | 0.45                    |
| XAl/XSi | 1.14                | 1.13                | 0.86                    | 0.92                    |
| XNa/XCa | 58.00               | 59.00               | 1.52                    | 1.39                    |</p>
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|                  |            |            |            |            |            |            |
| **Atoms per 29 O**|            |            |            |            |            |            |
| Si               | 5.84       | 5.85       | 5.88       | 5.89       | 5.85       | 5.87       |
| Al               | 5.73       | 5.74       | 5.62       | 6.13       | 5.21       | 5.32       |
| B                | 3.00       | 3.00       | 3.00       | 3.00       | 3.00       | 3.00       |
| Mg               | 1.27       | 1.28       | 1.10       | 0.73       | 1.66       | 1.61       |
| Fe               | 1.60       | 1.64       | 1.72       | 1.54       | 1.71       | 1.65       |
| Ti               | 0.13       | 0.07       | 0.15       | 0.03       | 0.20       | 0.18       |
| Mn               | 0.02       | 0.02       | 0.02       | 0.03       | 0.01       | 0.01       |
| Ca               | 0.21       | 0.24       | 0.13       | 0.26       | 0.40       | 0.37       |
| Na               | 0.68       | 0.66       | 0.70       | 0.79       | 0.54       | 0.50       |
| K                | 0.01       | 0.01       | 0.01       | 0.01       | 0.01       | 0.01       |
| Rb               | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       |
| Cs               | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       | 0.00       |
| F                | 0.60       | 0.53       | 0.54       | 0.50       | 0.15       | 0.13       |
| **Total**        | 19.08      | 19.04      | 18.82      | 18.91      | 18.73      | 18.65      |

|                  |            |            |            |            |            |            |
| **XMg/XFe**      | 0.79       | 0.78       | 0.64       | 0.47       | 0.97       | 0.98       |
| **XAl/XFe**      | 0.98       | 0.98       | 0.96       | 1.04       | 0.89       | 0.91       |
| **XNa/XSi**      | 3.24       | 2.75       | 5.38       | 3.04       | 1.35       | 1.35       |
### Table 2. (cont.)

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Superscripts denote the number of analyses averaged in each mineral grain.

FI = fluorine index at 600°C (after Munoz, 1984).
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15.57 15.61 15.32 15.31 15.62 15.86

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| XRb/β | 0.52       | 0.53       | 0.47       | 0.65       | 0.53       | 0.59       |
| XRb/XCs | 1.80     | 1.86       | 1.67       | 1.71       | 1.63       | 1.17       |
| XCs/XK | 0.05       | 0.08       | 0.06       | 0.10       | 0.14       | 0.13       |
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<p>| F(pfu)           | 1.32      | 1.64      | 1.44      | 1.08       | 0.74       | 0.82       |
| X₅Mg/X₇Fe       | 0.79      | 0.89      | 0.82      | 0.78       | 0.62       | 0.69       |
| X₆Rb/X₅Si       | 0.49      | 0.47      | 0.49      | 0.52       | 0.58       | 0.54       |
| X₆Rb/X₇Cs       | 1.67      | 0.93      | 1.21      | 3.17       | 2.83       | 2.67       |
| X₅Cs/X₇K        | 0.33      | 0.21      | 0.27      | 0.11       | 0.10       | 0.10       |
| X₇K/X₅          | 0.20      | 0.23      | 0.22      | 0.04       | 0.04       | 0.04       |
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Superscripts indicate the number of analyses averaged per report.

FeO* = total iron as FeO.
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**Cations per 12.5 O**

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| XAl/XSi | 0.88       | 0.87       | 0.63       | 0.79       |
| XNa/XCa | 0.00       | 0.00       | 0.01       | 0.00       |
Table 2. (cont.)

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|                |           |           |           |            |            |
| **Atoms per 14 O**|         |           |           |            |            |
| Si             | 2.90      | 2.71      | 2.74      | 2.73       | 2.91       |
| Al             | 2.42      | 2.64      | 2.67      | 2.84       | 2.65       |
| Mg             | 0.96      | 0.97      | 0.98      | 1.23       | 1.23       |
| Fe             | 3.43      | 3.57      | 3.50      | 2.88       | 2.72       |
| Ti             | 0.01      | 0.01      | 0.01      | 0.00       | 0.01       |
| Mn             | 0.04      | 0.04      | 0.04      | 0.09       | 0.08       |
| Ca             | 0.01      | 0.01      | 0.00      | 0.07       | 0.01       |
| Na             | 0.00      | 0.00      | 0.00      | 0.02       | 0.02       |
| K              | 0.19      | 0.01      | 0.00      | 0.01       | 0.17       |
| Rb             | 0.00      | 0.00      | 0.00      | 0.01       | 0.02       |
| Cs             | 0.01      | 0.00      | 0.00      | 0.01       | 0.02       |
| F              | 0.04      | 0.02      | 0.04      | 0.09       | 0.14       |

|                |           |           |           |            |            |
| XMg/XFe        | 0.28      | 0.27      | 0.28      | 0.43       | 0.45       |
| XAl/XSi        | 0.83      | 0.97      | 0.97      | 1.04       | 0.91       |

Superscripts indicate the number of analyses averaged per mineral grain.

FeO* indicates that total Fe is reported as FeO.
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| F(pfu)         | 0.04| 0.04 | 0.02 | 0.02 |
| XMg/XFe        | 0.61| 0.67 | 0.27 | 0.40 |
| XAl/XSi        | 0.23| 0.29 | 0.24 | 0.23 |
| Assemblage     | B   | B    | P ± B| P ± B |

Superscripts indicate the number of analyses averaged.
FeO* - total iron as FeO.
Assemblage (associations): B = biotite, T = tourmaline, P = propylitic alteration.
Molar quantity of Lithium is derived by difference (see text).
## Table 2. (cont.)

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