|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table S1: Results of EPMA analysis on Ank3 and Ank7 samples.** | | | | | | | | | | | | | |
| **Sample** | **FeO** | **MgO** | **CaO** | **MnO** | **Al2O3** | **Na2O** | **K2O** | **SiO2** | **P2O5** | **TiO2** | **Cr2O3** | **Total** | **CO2** |
| **Ank3** | 11.88 | 12.06 | 28.10 | 2.11 | 0.06 | 0.02 | - | 0.02 | 0.02 | 0.09 | 0.19 | 54.54 | 45.46 |
|  | 12.12 | 12.05 | 27.54 | 2.11 | 0.08 | 0.08 | - | 0.02 | 0.02 | - | 0.19 | 54.22 | 45.78 |
|  | 11.59 | 12.46 | 27.33 | 2.01 | 0.10 | 0.02 | 0.01 | 0.01 | - | 0.01 | 0.05 | 53.59 | 46.41 |
|  | 11.75 | 12.27 | 26.94 | 2.11 | 0.08 | - | 0.01 | 0.06 | 0.03 | 0.04 | 0.14 | 53.42 | 46.58 |
|  | 11.48 | 12.81 | 27.30 | 2.17 | 0.04 | 0.01 | 0.00 | 0.09 | - | 0.03 | 0.20 | 54.13 | 45.87 |
|  | 11.83 | 12.53 | 27.50 | 1.97 | 0.09 | 0.05 | - | 0.05 | 0.04 | 0.02 | 0.18 | 54.26 | 45.74 |
| Average  composition | 11.8(2) | 12.4(3) | 27.5(4) | 2.08(7) | 0.07(2) | 0.03(3) | 0.00 | 0.04(3) | 0.03(1) | 0.04(3) | 0.16(6) | 54.0(4) | 46.0(4) |
| **Ank7** | 23.99 | 5.61 | 25.63 | 1.30 | 0.01 | 0.17 | 0.02 | - | 0.07 | 0.00 | 0.10 | 56.89 | 43.11 |
|  | 23.96 | 5.42 | 25.69 | 1.32 | 0.01 | - | 0.03 | - | 0.03 | - | 0.18 | 56.64 | 43.36 |
|  | 23.90 | 5.33 | 25.80 | 1.37 | 0.02 | - | - | 0.07 | - | - | 0.19 | 56.69 | 43.31 |
|  | 24.34 | 5.20 | 26.12 | 1.54 | 0.03 | 0.03 | 0.02 | 0.04 | 0.07 | 0.01 | 0.21 | 57.61 | 42.39 |
|  | 24.18 | 5.30 | 25.77 | 1.47 | 0.04 | 0.07 | 0.00 | 0.03 | 0.05 | 0.03 | 0.25 | 57.20 | 42.80 |
| Average  composition | **24.1(2)** | **5.4(2)** | **25.8(2)** | **1.4(1)** | **0.02(1)** | **0.09(7)** | **0.02(1)** | **0.05(2)** | **0.06(2)** | **0.01(1)** | **0.19(6)** | **57.0(4)** | **43(1)** |