Table S1. Major element glass composition (normalised to 100%) of investigated tephras and cryptotephras from Lake Prespa core Co1215.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Tephra/**  **Crypto-**  **tephra** | **Depth (m)** | **Shards** | **SiO2** | **TiO2** | **Al2O3** | **FeOtot** | **MnO** | **MgO** | **CaO** | **Na2O** | **K2O** | **P2O5** | **ClO** | **Total** | **Tot. Alkali** | **Alk. Ratio** |
| **PT0915-1** | 0.554-0.556 | 1 | 46.38 | 1.07 | 22.60 | 7.34 | 0.29 | 2.23 | 9.03 | 4.76 | 5.22 | 0.16 | 0.93 | 100.01 | 9.98 | 1.10 |
|  |  | 2 | 48.57 | 0.83 | 19.89 | 6.57 | 0.12 | 2.37 | 9.07 | 4.31 | 7.19 | 0.11 | 0.97 | 100.00 | 11.50 | 1.67 |
|  |  | 3 | 49.76 | 1.19 | 20.51 | 6.64 | 0.15 | 1.62 | 7.49 | 5.16 | 6.16 | 0.27 | 1.05 | 100.00 | 11.32 | 1.19 |
|  |  | 4 | 48.67 | 1.01 | 19.86 | 7.21 | 0.21 | 2.36 | 10.46 | 4.63 | 4.56 | 0.00 | 1.01 | 99.98 | 9.19 | 0.98 |
|  |  | 5 | 47.90 | 0.88 | 20.26 | 6.67 | 0.20 | 2.15 | 8.76 | 4.63 | 7.39 | 0.14 | 1.00 | 99.98 | 12.02 | 1.60 |
|  |  | 6 | 46.71 | 1.21 | 19.34 | 8.28 | 0.18 | 2.59 | 10.39 | 5.07 | 4.73 | 0.23 | 1.25 | 99.98 | 9.80 | 0.93 |
|  |  | 7 | 50.19 | 0.94 | 20.86 | 6.79 | 0.17 | 1.48 | 7.43 | 5.53 | 5.35 | 0.26 | 1.00 | 100.00 | 10.88 | 0.97 |
|  |  | 8 | 50.03 | 0.83 | 21.82 | 5.47 | 0.30 | 1.26 | 5.88 | 5.15 | 7.93 | 0.33 | 1.02 | 100.02 | 13.08 | 1.54 |
|  |  | 9 | 50.53 | 0.60 | 21.26 | 5.50 | 0.00 | 1.57 | 6.54 | 3.53 | 9.43 | 0.14 | 0.90 | 100.00 | 12.96 | 2.67 |
|  |  | 10 | 48.09 | 1.01 | 19.71 | 7.66 | 0.23 | 2.22 | 9.28 | 5.05 | 5.13 | 0.38 | 1.23 | 99.99 | 10.18 | 1.02 |
|  |  | 11 | 46.57 | 1.06 | 22.04 | 7.47 | 0.31 | 2.03 | 8.73 | 4.46 | 5.87 | 0.34 | 1.11 | 99.99 | 10.33 | 1.32 |
|  |  | 12 | 49.89 | 0.73 | 20.08 | 6.65 | 0.15 | 2.11 | 8.05 | 4.35 | 6.98 | 0.06 | 0.95 | 100.00 | 11.33 | 1.60 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **PT0915-2** | 1.556-1.562 | 1 | 58.69 | 0.18 | 21.30 | 1.85 | 0.11 | 0.26 | 2.00 | 7.97 | 6.82 | 0.08 | 0.74 | 100.00 | 14.79 | 0.86 |
|  |  | 2 | 58.42 | 0.15 | 21.85 | 1.83 | 0.10 | 0.06 | 1.70 | 8.02 | 7.04 | 0.06 | 0.76 | 99.99 | 15.06 | 0.88 |
|  |  | 3 | 58.50 | 0.16 | 21.35 | 2.12 | 0.16 | 0.20 | 1.87 | 7.90 | 6.96 | 0.00 | 0.78 | 100.00 | 14.86 | 0.88 |
|  |  | 4 | 57.97 | 0.29 | 21.56 | 2.16 | 0.21 | 0.33 | 1.88 | 7.92 | 6.88 | 0.00 | 0.82 | 100.02 | 14.80 | 0.87 |
|  |  | 5 | 58.58 | 0.15 | 21.82 | 1.89 | 0.07 | 0.09 | 1.89 | 7.87 | 7.00 | 0.00 | 0.63 | 99.99 | 14.87 | 0.89 |
|  |  | 6 | 58.59 | 0.21 | 21.48 | 1.95 | 0.26 | 0.22 | 1.73 | 8.05 | 6.78 | 0.00 | 0.74 | 100.1 | 14.83 | 0.84 |
|  |  | 7 | 57.74 | 0.19 | 22.27 | 1.94 | 0.09 | 0.33 | 1.79 | 8.02 | 6.90 | 0.00 | 0.74 | 100.1 | 14.92 | 0.86 |
|  |  | 8 | 58.56 | 0.11 | 21.59 | 1.82 | 0.15 | 0.22 | 1.79 | 8.06 | 7.07 | 0.00 | 0.63 | 100.00 | 15.13 | 0.88 |
|  |  | 9 | 58.30 | 0.17 | 20.79 | 1.80 | 0.11 | 0.34 | 3.20 | 7.27 | 6.60 | 0.63 | 0.79 | 100.00 | 13.87 | 0.91 |
|  |  | 10 | 58.09 | 0.20 | 21.90 | 1.87 | 0.25 | 0.35 | 1.80 | 8.24 | 6.49 | 0.08 | 0.71 | 99.98 | 14.73 | 0.79 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **PT0915-3** | 2.65-2.67 | 1 | 61.06 | 0.56 | 18.86 | 2.84 | 0.21 | 0.61 | 2.06 | 4.80 | 8.42 | 0.00 | 0.57 | 99.99 | 13.22 | 1.75 |
|  |  | 2 | 60.83 | 0.48 | 19.01 | 2.89 | 0.13 | 0.48 | 2.18 | 4.43 | 8.98 | 0.00 | 0.58 | 99.99 | 13.41 | 2.03 |
|  |  | 3 | 61.79 | 0.33 | 18.89 | 2.84 | 0.00 | 0.46 | 2.12 | 4.01 | 8.94 | 0.00 | 0.60 | 99.98 | 12.95 | 2.23 |
|  |  | 4 | 60.82 | 0.54 | 19.04 | 2.98 | 0.31 | 0.44 | 2.09 | 4.24 | 9.02 | 0.00 | 0.51 | 99.99 | 13.26 | 2.13 |
|  |  | 5 | 61.44 | 0.26 | 19.00 | 2.86 | 0.00 | 0.51 | 2.06 | 4.64 | 8.69 | 0.00 | 0.54 | 100.00 | 13.33 | 1.87 |
|  |  | 6 | 61.32 | 0.54 | 18.71 | 2.72 | 0.19 | 0.46 | 2.26 | 4.12 | 9.17 | 0.00 | 0.51 | 100.00 | 13.29 | 2.23 |
|  |  | 7 | 61.22 | 0.50 | 19.06 | 2.93 | 0.12 | 0.56 | 2.18 | 4.24 | 8.61 | 0.00 | 0.59 | 100.01 | 12.85 | 2.03 |
|  |  | 8 | 61.78 | 0.54 | 19.06 | 2.93 | 0.19 | 0.63 | 2.31 | 5.04 | 6.93 | 0.00 | 0.58 | 99.99 | 11.97 | 1.38 |
|  |  | 9 | 60.93 | 0.59 | 19.25 | 3.31 | 0.14 | 0.68 | 2.59 | 3.77 | 8.19 | 0.00 | 0.56 | 100.01 | 11.96 | 2.17 |
|  |  | 10 | 61.36 | 0.25 | 19.08 | 2.77 | 0.10 | 0.52 | 2.16 | 4.45 | 8.84 | 0.00 | 0.48 | 100.01 | 13.29 | 1.99 |
|  |  | 11 | 61.60 | 0.34 | 19.01 | 2.67 | 0.10 | 0.54 | 2.06 | 4.43 | 8.69 | 0.00 | 0.55 | 99.99 | 13.12 | 1.96 |
|  |  | 12 | 61.41 | 0.46 | 18.98 | 2.79 | 0.16 | 0.56 | 2.01 | 4.45 | 8.61 | 0.00 | 0.56 | 99.99 | 13.06 | 1.93 |
|  |  | 13 | 61.47 | 0.38 | 18.77 | 2.85 | 0.23 | 0.53 | 2.21 | 4.37 | 8.66 | 0.00 | 0.53 | 100.00 | 13.03 | 1.98 |
|  |  | 14 | 61.25 | 0.38 | 18.94 | 2.74 | 0.11 | 0.59 | 2.21 | 4.18 | 9.06 | 0.00 | 0.54 | 100.00 | 13.24 | 2.17 |
|  |  | 15 | 61.62 | 0.36 | 19.01 | 2.83 | 0.09 | 0.65 | 2.11 | 4.27 | 8.52 | 0.00 | 0.54 | 100.00 | 12.79 | 2.00 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **PT0915-4** | 2.87-2.89 | 1 | 61.30 | 0.40 | 18.91 | 2.92 | 0.13 | 0.60 | 2.19 | 4.32 | 8.67 | 0.00 | 0.57 | 100.01 | 12.99 | 2.01 |
|  |  | 2 | 58.95 | 0.71 | 21.62 | 2.79 | 0.27 | 0.69 | 2.10 | 3.87 | 8.52 | 0.00 | 0.49 | 100.01 | 12.39 | 2.20 |
|  |  | 3 | 61.64 | 0.31 | 18.79 | 2.68 | 0.00 | 0.58 | 1.95 | 4.26 | 9.19 | 0.00 | 0.59 | 99.99 | 13.45 | 2.16 |
|  |  | 4 | 61.35 | 0.54 | 18.89 | 2.47 | 0.31 | 0.57 | 2.05 | 4.44 | 8.53 | 0.00 | 0.58 | 99.73 | 12.97 | 1.92 |
|  |  | 5 | 60.98 | 0.48 | 19.02 | 2.91 | 0.06 | 0.55 | 2.25 | 4.13 | 9.14 | 0.00 | 0.50 | 100.02 | 13.27 | 2.21 |
|  |  | 6 | 61.32 | 0.33 | 18.99 | 2.93 | 0.13 | 0.58 | 2.21 | 4.10 | 8.90 | 0.00 | 0.52 | 100.01 | 13.00 | 2.17 |
|  |  | 7 | 61.34 | 0.35 | 19.13 | 2.75 | 0.11 | 0.46 | 2.24 | 4.22 | 8.80 | 0.00 | 0.60 | 100.00 | 13.02 | 2.09 |
|  |  | 8 | 61.38 | 0.42 | 18.83 | 2.71 | 0.13 | 0.43 | 2.23 | 4.21 | 9.07 | 0.00 | 0.61 | 100.02 | 13.28 | 2.15 |
|  |  | 9 | 60.86 | 0.40 | 18.95 | 2.88 | 0.18 | 0.41 | 2.29 | 4.43 | 9.08 | 0.00 | 0.52 | 100.00 | 13.51 | 2.05 |
|  |  | 10 | 60.72 | 0.47 | 18.86 | 3.08 | 0.23 | 0.50 | 2.27 | 4.13 | 9.12 | 0.00 | 0.62 | 100.00 | 13.25 | 2.21 |
|  |  | 11 | 61.25 | 0.48 | 18.93 | 2.88 | 0.26 | 0.55 | 2.25 | 3.98 | 8.86 | 0.00 | 0.55 | 99.99 | 12.84 | 2.23 |
|  |  | 12 | 61.56 | 0.56 | 19.25 | 2.79 | 0.18 | 0.67 | 2.18 | 3.83 | 8.44 | 0.00 | 0.53 | 99.99 | 12.27 | 2.20 |
|  |  | 13 | 61.04 | 0.43 | 18.63 | 3.05 | 0.27 | 0.50 | 2.08 | 4.33 | 9.06 | 0.00 | 0.61 | 100.00 | 13.39 | 2.09 |
|  |  | 14 | 61.21 | 0.44 | 18.70 | 2.96 | 0.23 | 0.46 | 2.36 | 4.04 | 9.09 | 0.00 | 0.52 | 100.01 | 13.13 | 2.25 |
|  |  | 15 | 60.99 | 0.47 | 18.92 | 2.76 | 0.11 | 0.53 | 2.23 | 4.69 | 8.69 | 0.00 | 0.62 | 100.01 | 13.38 | 1.85 |
|  |  | 16 | 61.18 | 0.44 | 18.89 | 2.73 | 0.11 | 0.60 | 2.18 | 4.50 | 8.83 | 0.00 | 0.53 | 99.99 | 13.33 | 1.96 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **PT0915-5** | 6.168-6.178 | 1 | 60.87 | 0.29 | 18.85 | 3.43 | 0.13 | 0.66 | 2.39 | 4.39 | 8.35 | 0.00 | 0.64 | 100.00 | 12.74 | 1.90 |
|  |  | 2 | 59.67 | 0.59 | 19.03 | 4.00 | 0.14 | 1.03 | 2.94 | 2.98 | 9.24 | 0.00 | 0.39 | 100.01 | 12.22 | 3.10 |
|  |  | 3 | 61.70 | 0.36 | 18.67 | 2.94 | 0.19 | 0.44 | 2.11 | 4.32 | 8.62 | 0.00 | 0.67 | 100..02 | 12.94 | 2.00 |
|  |  | 4 | 60.86 | 0.46 | 19.32 | 3.38 | 0.06 | 0.75 | 2.26 | 3.84 | 8.62 | 0.00 | 0.45 | 100.00 | 12.46 | 2.24 |
|  |  | 5 | 59.81 | 0.49 | 19.29 | 3.63 | 0.08 | 0.96 | 2.50 | 2.96 | 9.94 | 0.00 | 0.34 | 100.00 | 12.90 | 3.36 |
|  |  | 6 | 60.22 | 0.36 | 19.04 | 3.71 | 0.00 | 1.00 | 2.73 | 3.07 | 9.25 | 0.00 | 0.62 | 100.00 | 12.32 | 3.01 |
|  |  | 7 | 60.10 | 0.36 | 18.89 | 3.62 | 0.07 | 0.94 | 2.70 | 3.34 | 9.50 | 0.00 | 0.47 | 99.99 | 12.84 | 2.84 |
|  |  | 8 | 61.30 | 0.39 | 19.06 | 3.42 | 0.13 | 0.80 | 2.15 | 3.29 | 8.83 | 0.00 | 0.63 | 100.00 | 12.12 | 2.68 |
|  |  | 9 | 59.85 | 0.42 | 19.21 | 3.72 | 0.19 | 0.94 | 2.51 | 2.80 | 9.77 | 0.00 | 0.59 | 100.00 | 12.57 | 3.49 |
|  |  | 10 | 61.77 | 0.30 | 18.56 | 2.63 | 0.00 | 0.76 | 2.10 | 4.39 | 8.33 | 0.10 | 1.05 | 99.99 | 12.72 | 1.90 |
|  |  | 11 | 62.13 | 0.39 | 18.64 | 2.94 | 0.09 | 0.50 | 2.06 | 4.16 | 8.26 | 0.00 | 0.83 | 100.00 | 12.42 | 1.99 |
|  |  | 12 | 61.96 | 0.35 | 18.51 | 3.39 | 0.24 | 0.66 | 1.96 | 3.67 | 8.56 | 0.00 | 0.70 | 100.00 | 12.23 | 2.33 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **PT0915-6** | 6.90-6.932 | 1 | 64.02 | 0.21 | 18.03 | 2.34 | 0.20 | 0.57 | 3.13 | 4.02 | 6.67 | 0.00 | 0.80 | 99.99 | 10.69 | 1.66 |
|  |  | 2 | 60.09 | 0.46 | 19.18 | 3.36 | 0.15 | 0.81 | 2.61 | 4.21 | 8.63 | 0.00 | 0.49 | 99.99 | 12.84 | 2.05 |
|  |  | 3 | 57.65 | 0.62 | 23.23 | 2.33 | 0.00 | 1.05 | 5.74 | 2.79 | 6.14 | 0.00 | 0.45 | 100.00 | 8.93 | 2.20 |
|  |  | 4 | 58.16 | 0.59 | 21.06 | 3.67 | 0.07 | 0.75 | 5.13 | 2.81 | 7.37 | 0.00 | 0.37 | 99.98 | 10.18 | 2.62 |
|  |  | 5 | 59.71 | 0.53 | 21.21 | 1.83 | 0.07 | 0.53 | 3.72 | 4.16 | 7.16 | 0.00 | 1.10 | 100.02 | 11.32 | 1.72 |
|  |  | 6 | 57.50 | 0.97 | 20.63 | 5.13 | 0.11 | 0.93 | 5.01 | 3.56 | 5.78 | 0.08 | 0.29 | 99.99 | 9.34 | 1.62 |
|  |  | 7 | 54.83 | 0.59 | 25.50 | 2.06 | 0.00 | 0.68 | 8.84 | 3.31 | 3.97 | 0.00 | 0.22 | 100.00 | 7.28 | 1.20 |
|  |  | 8 | 53.38 | 0.59 | 24.46 | 2.65 | 0.25 | 1.34 | 10.35 | 3.18 | 3.49 | 0.13 | 0.19 | 100.01 | 6.67 | 1.10 |
|  |  | 9 | 54.78 | 0.83 | 22.52 | 5.17 | 0.30 | 1.03 | 5.93 | 3.31 | 5.67 | 0.15 | 0.31 | 100.00 | 8.98 | 1.71 |
|  |  | 10 | 57.06 | 0.63 | 22.49 | 2.62 | 0.00 | 1.31 | 6.01 | 2.58 | 7.07 | 0.00 | 0.23 | 100.00 | 9.65 | 2.74 |
|  |  | 11 | 53.42 | 0.41 | 26.50 | 2.39 | 0.07 | 0.70 | 9.88 | 3.30 | 2.97 | 0.09 | 0.28 | 100.01 | 6.27 | 0.90 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **PT0915-7** | 7.648-7.838 | 1 | 61.00 | 0.27 | 19.17 | 2.56 | 0.13 | 0.65 | 1.82 | 5.41 | 8.22 | 0.00 | 0.77 | 100.00 | 13.63 | 1.52 |
|  |  | 2 | 60.56 | 0.30 | 19.80 | 2.96 | 0.34 | 0.48 | 1.72 | 5.94 | 7.14 | 0.00 | 0.77 | 100.01 | 13.08 | 1.20 |
|  |  | 3 | 60.31 | 0.34 | 19.46 | 2.80 | 0.00 | 0.43 | 1.75 | 6.79 | 7.33 | 0.00 | 0.78 | 99.99 | 14.12 | 1.08 |
|  |  | 4 | 59.77 | 0.66 | 19.23 | 2.84 | 0.36 | 0.54 | 1.71 | 6.49 | 7.60 | 0.00 | 0.80 | 100.00 | 14.09 | 1.17 |
|  |  | 5 | 60.38 | 0.62 | 19.39 | 2.92 | 0.24 | 0.41 | 1.78 | 6.12 | 7.37 | 0.00 | 0.78 | 100.01 | 13.49 | 1.20 |
|  |  | 6 | 60.32 | 0.47 | 19.59 | 2.78 | 0.26 | 0.64 | 1.75 | 6.24 | 6.94 | 0.00 | 1.00 | 99.99 | 13.18 | 1.11 |
|  |  | 7 | 60.54 | 0.30 | 19.38 | 2.81 | 0.22 | 0.65 | 1.75 | 6.12 | 7.39 | 0.00 | 0.84 | 100.00 | 13.51 | 1.21 |
|  |  | 8 | 60.13 | 0.58 | 19.17 | 3.04 | 0.42 | 0.55 | 1.57 | 6.57 | 7.06 | 0.00 | 0.91 | 100.00 | 13.63 | 1.07 |
|  |  | 9 | 60.25 | 0.49 | 19.25 | 2.94 | 0.26 | 0.54 | 1.64 | 6.62 | 7.27 | 0.00 | 0.73 | 99.99 | 13.89 | 1.10 |
|  |  | 10 | 59.58 | 0.30 | 19.97 | 3.00 | 0.23 | 0.77 | 1.69 | 6.49 | 7.21 | 0.00 | 0.77 | 100.01 | 13.70 | 1.11 |
|  |  | 11 | 60.11 | 0.35 | 19.80 | 2.90 | 0.17 | 0.51 | 1.82 | 6.51 | 7.06 | 0.00 | 0.76 | 99.99 | 13.57 | 1.08 |
|  |  | 12 | 59.87 | 0.52 | 19.50 | 2.94 | 0.27 | 0.52 | 1.68 | 6.92 | 7.00 | 0.00 | 0.77 | 99.9 | 13.92 | 1.01 |
|  |  | 13 | 61.36 | 0.27 | 19.76 | 2.41 | 0.12 | 0.47 | 2.23 | 4.00 | 8.94 | 0.00 | 0.44 | 100.00 | 12.94 | 2.24 |
|  |  | 14 | 60.28 | 0.50 | 19.01 | 3.36 | 0.27 | 0.84 | 2.49 | 3.17 | 9.79 | 0.00 | 0.28 | 99.99 | 12.96 | 3.09 |
|  |  | 15 | 60.35 | 0.52 | 18.91 | 3.30 | 0.12 | 0.77 | 2.18 | 3.53 | 9.89 | 0.00 | 0.41 | 99.98 | 13.42 | 2.80 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **PT0915-8** | 8.42-8.44 | 1 | 60.73 | 0.51 | 19.17 | 3.05 | 0.28 | 0.35 | 1.57 | 6.61 | 7.03 | 0.00 | 0.69 | 99.99 | 13.64 | 1.06 |
|  |  | 2 | 60.05 | 0.49 | 19.36 | 2.91 | 0.24 | 0.66 | 1.74 | 6.88 | 7.03 | 0.00 | 0.65 | 100.01 | 13.91 | 1.02 |
|  |  | 3 | 60.62 | 0.43 | 19.00 | 3.03 | 0.29 | 0.41 | 1.67 | 6.70 | 7.17 | 0.00 | 0.69 | 100.01 | 13.87 | 1.07 |
|  |  | 4 | 60.82 | 0.27 | 19.12 | 2.78 | 0.11 | 0.45 | 1.70 | 6.93 | 7.15 | 0.00 | 0.68 | 100.01 | 14.08 | 1.03 |
|  |  | 5 | 60.39 | 0.43 | 19.29 | 2.88 | 0.33 | 0.43 | 1.75 | 6.54 | 7.20 | 0.00 | 0.77 | 100.01 | 13.74 | 1.10 |
|  |  | 6 | 60.69 | 0.37 | 19.15 | 2.80 | 0.19 | 0.32 | 1.72 | 6.77 | 7.26 | 0.00 | 0.74 | 100.01 | 14.03 | 1.07 |
|  |  | 7 | 60.20 | 0.41 | 19.28 | 2.77 | 0.15 | 0.49 | 1.90 | 6.80 | 7.29 | 0.00 | 0.71 | 100.00 | 14.09 | 1.07 |
|  |  | 8 | 60.76 | 0.37 | 19.13 | 2.73 | 0.07 | 0.38 | 1.84 | 6.83 | 7.17 | 0.00 | 0.73 | 100.01 | 14.00 | 1.05 |
|  |  | 9 | 60.91 | 0.29 | 19.20 | 2.95 | 0.10 | 0.42 | 1.74 | 6.32 | 7.36 | 0.00 | 0.72 | 100.01 | 13.68 | 1.16 |
|  |  | 10 | 60.81 | 0.45 | 19.39 | 2.98 | 0.23 | 0.28 | 1.65 | 6.05 | 7.51 | 0.00 | 0.64 | 99.99 | 13.56 | 1.24 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **PT0915-9** | 8.54-8.56 | 1 | 71.15 | 0.53 | 8.08 | 8.25 | 0.50 | 0.00 | 0.33 | 5.92 | 4.31 | 0.00 | 0.92 | 99.99 | 10.23 | 0.73 |
|  |  | 2 | 67.55 | 0.78 | 10.37 | 8.32 | 0.29 | 0.16 | 0.61 | 6.87 | 4.46 | 0.00 | 0.59 | 100.00 | 11.33 | 0.65 |
|  |  | 3 | 70.49 | 0.62 | 8.57 | 8.36 | 0.31 | 0.00 | 0.43 | 6.01 | 4.43 | 0.00 | 0.77 | 99.99 | 10.44 | 0.74 |
|  |  | 4 | 71.33 | 0.53 | 8.17 | 8.26 | 0.47 | 0.05 | 0.44 | 5.37 | 4.40 | 0.00 | 0.98 | 100.00 | 9.77 | 0.82 |
|  |  | 5 | 71.38 | 0.53 | 8.10 | 8.26 | 0.32 | 0.07 | 0.32 | 5.63 | 4.25 | 0.00 | 1.14 | 100.00 | 9.88 | 0.75 |
|  |  | 6 | 71.63 | 0.54 | 8.23 | 8.06 | 0.40 | 0.07 | 0.39 | 5.32 | 4.47 | 0.00 | 0.88 | 99.99 | 9.79 | 0.84 |
|  |  | 7 | 72.47 | 0.47 | 8.19 | 8.07 | 0.26 | 0.00 | 0.31 | 4.81 | 4.44 | 0.00 | 0.99 | 100.01 | 9.25 | 0.92 |
|  |  | 8 | 68.00 | 0.68 | 11.37 | 7.92 | 0.39 | 0.08 | 0.68 | 5.56 | 4.83 | 0.00 | 0.51 | 100.02 | 10.39 | 0.87 |
|  |  | 9 | 71.93 | 0.42 | 8.27 | 7.99 | 0.37 | 0.08 | 0.33 | 5.19 | 4.43 | 0.00 | 0.98 | 99.99 | 9.62 | 0.85 |
|  |  | 10 | 71.93 | 0.41 | 8.23 | 7.94 | 0.32 | 0.15 | 0.29 | 5.37 | 4.42 | 0.00 | 0.96 | 100.02 | 9.79 | 0.82 |
|  |  | 11 | 71.79 | 0.36 | 8.20 | 7.95 | 0.11 | 0.16 | 0.37 | 5.72 | 4.33 | 0.00 | 1.00 | 99.99 | 10.05 | 0.76 |
|  |  | 12 | 72.19 | 0.38 | 8.17 | 7.93 | 0.21 | 0.07 | 0.39 | 5.36 | 4.36 | 0.00 | 0.94 | 100.00 | 9.72 | 0.81 |
|  |  | 13 | 71.62 | 0.42 | 8.06 | 7.96 | 0.28 | 0.07 | 0.43 | 6.01 | 4.25 | 0.00 | 0.90 | 100.00 | 10.26 | 0.71 |
|  |  | 14 | 71.87 | 0.42 | 8.20 | 7.81 | 0.31 | 0.12 | 0.32 | 5.64 | 4.43 | 0.00 | 0.89 | 100.01 | 10.07 | 0.79 |
|  |  | 15 | 71.91 | 0.46 | 8.16 | 8.10 | 0.39 | 0.11 | 0.32 | 5.48 | 4.25 | 0.00 | 0.82 | 10.00 | 9.73 | 0.78 |
|  |  | 16 | 70.83 | 0.55 | 7.94 | 8.14 | 0.35 | 0.05 | 0.36 | 6.53 | 4.33 | 0.00 | 0.91 | 99.99 | 10.86 | 0.66 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **PT0915-10** | 9.008-9.01 | 1 | 61.15 | 0.45 | 18.89 | 2.95 | 0.31 | 0.71 | 1.56 | 6.08 | 7.09 | 0.00 | 0.81 | 100.00 | 13.17 | 1.17 |
|  |  | 2 | 59.60 | 0.31 | 19.30 | 3.31 | 0.05 | 0.53 | 3.43 | 4.59 | 8.15 | 0.00 | 0.72 | 99.99 | 12.74 | 1.78 |
|  |  | 3 | 60.38 | 0.33 | 19.15 | 2.92 | 0.19 | 0.83 | 1.74 | 6.57 | 6.97 | 0.00 | 0.92 | 100.00 | 13.54 | 1.06 |
|  |  | 4 | 61.23 | 0.31 | 19.03 | 2.71 | 0.00 | 0.60 | 2.22 | 5.31 | 7.99 | 0.00 | 0.61 | 100.01 | 13.30 | 1.50 |
|  |  | 5 | 62.15 | 0.35 | 19.39 | 2.52 | 0.05 | 0.65 | 1.98 | 4.91 | 7.47 | 0.00 | 0.52 | 99.99 | 12.38 | 1.52 |
|  |  | 6 | 61.07 | 0.41 | 18.90 | 2.80 | 0.20 | 0.56 | 1.82 | 6.43 | 7.01 | 0.00 | 0.79 | 99.99 | 13.44 | 1.09 |
|  |  | 7 | 61.62 | 0.25 | 19.37 | 2.53 | 0.11 | 0.51 | 1.72 | 6.14 | 6.90 | 0.00 | 0.85 | 100.00 | 13.04 | 1.12 |
|  |  | 8 | 59.74 | 0.46 | 19.20 | 2.87 | 0.28 | 0.66 | 2.43 | 6.11 | 7.41 | 0.00 | 0.83 | 99.99 | 13.52 | 1.21 |
|  |  | 9 | 59.45 | 1.01 | 19.57 | 3.21 | 0.40 | 0.68 | 3.03 | 4.67 | 7.23 | 0.00 | 0.76 | 100.01 | 11.90 | 1.55 |
|  |  | 10 | 60.51 | 0.45 | 19.32 | 2.92 | 0.19 | 0.80 | 2.34 | 4.18 | 8.72 | 0.00 | 0.57 | 100.00 | 12.90 | 2.09 |
|  |  | 11 | 61.40 | 0.40 | 18.87 | 2.81 | 0.16 | 0.46 | 2.19 | 4.53 | 8.68 | 0.00 | 0.50 | 100.00 | 13.21 | 1.92 |
|  |  | 12 | 61.44 | 0.36 | 18.94 | 2.87 | 0.05 | 0.58 | 2.40 | 4.15 | 8.73 | 0.00 | 0.48 | 100.00 | 12.88 | 2.10 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **PT0915-11** | 10.786-10.796 | 1 | 61.00 | 0.72 | 17.84 | 5.60 | 0.14 | 1.56 | 2.70 | 5.69 | 4.00 | 0.19 | 0.56 | 100.00 | 9.69 | 0.70 |
|  |  | 2 | 60.76 | 0.36 | 21.37 | 3.17 | 0.00 | 1.01 | 4.68 | 6.05 | 2.33 | 0.00 | 0.28 | 100.01 | 8.38 | 0.39 |
|  |  | 3 | 60.88 | 1.39 | 19.63 | 4.19 | 0.24 | 1.12 | 3.46 | 6.41 | 2.34 | 0.07 | 0.27 | 100.00 | 8.75 | 0.37 |
|  |  | 4 | 60.78 | 0.74 | 15.83 | 6.57 | 0.32 | 4.50 | 3.15 | 4.11 | 3.33 | 0.27 | 0.40 | 100.00 | 7.44 | 0.81 |
|  |  | 5 | 62.69 | 0.87 | 18.08 | 5.41 | 0.16 | 1.87 | 2.77 | 3.24 | 4.04 | 0.26 | 0.62 | 100.01 | 7.28 | 1.25 |
|  |  | 6 | 61.64 | 0.60 | 19.24 | 4.68 | 0.00 | 1.59 | 3.34 | 4.87 | 3.42 | 0.18 | 0.44 | 100.00 | 8.29 | 0.70 |
|  |  | 7 | 61.06 | 0.86 | 18.14 | 5.92 | 0.21 | 1.28 | 2.91 | 4.96 | 4.12 | 0.05 | 0.50 | 100.01 | 9.08 | 0.83 |
|  |  | 8 | 63.08 | 0.79 | 16.55 | 5.30 | 0.10 | 2.51 | 4.03 | 3.40 | 3.49 | 0.31 | 0.46 | 100.02 | 6.89 | 1.03 |
|  |  | 9 | 61.37 | 0.47 | 21.02 | 2.90 | 0.08 | 0.94 | 4.48 | 6.11 | 2.20 | 0.20 | 0.24 | 100.01 | 8.31 | 0.36 |
|  |  | 10 | 61.49 | 0.94 | 17.72 | 4.72 | 0.17 | 1.42 | 2.67 | 5.97 | 4.25 | 0.17 | 0.48 | 100.00 | 10.22 | 0.71 |
|  |  | 11 | 60.85 | 0.87 | 18.46 | 4.65 | 0.24 | 1.49 | 3.31 | 5.92 | 3.40 | 0.24 | 0.59 | 100.02 | 9.32 | 0.57 |
|  |  | 12 | 60.18 | 0.87 | 17.84 | 5.85 | 0.09 | 1.75 | 2.95 | 5.55 | 4.10 | 0.12 | 0.70 | 100.00 | 9.65 | 0.74 |
|  |  | 13 | 60.06 | 0.59 | 19.01 | 4.81 | 0.08 | 1.63 | 3.75 | 5.98 | 3.06 | 0.19 | 0.84 | 100.00 | 9.04 | 0.51 |
|  |  | 14 | 59.23 | 0.67 | 20.41 | 4.19 | 0.12 | 1.38 | 4.70 | 6.38 | 2.04 | 0.24 | 0.65 | 100.01 | 8.42 | 0.32 |
|  |  | 15 | 59.84 | 0.98 | 17.70 | 5.80 | 0.15 | 2.23 | 3.20 | 5.65 | 3.72 | 0.14 | 0.59 | 100.00 | 9.37 | 0.66 |
|  |  | 16 | 60.62 | 0.96 | 17.59 | 6.04 | 0.19 | 1.33 | 2.36 | 5.94 | 4.20 | 0.18 | 0.57 | 99.98 | 10.14 | 0.71 |
|  |  | 17 | 59.43 | 0.72 | 19.08 | 4.94 | 0.14 | 1.48 | 3.30 | 6.68 | 3.46 | 0.23 | 0.53 | 99.99 | 10.14 | 0.52 |
|  |  | 18 | 60.26 | 0.80 | 19.89 | 4.50 | 0.08 | 1.07 | 3.51 | 6.40 | 2.95 | 0.12 | 0.42 | 100.00 | 9.35 | 0.46 |
|  |  | 19 | 60.65 | 0.94 | 18.98 | 4.73 | 0.36 | 1.42 | 2.94 | 5.65 | 3.76 | 0.00 | 0.57 | 100.00 | 9.41 | 0.67 |
|  |  | 20 | 60.32 | 0.56 | 19.64 | 4.37 | 0.00 | 1.41 | 3.57 | 6.02 | 3.10 | 0.22 | 0.81 | 100.02 | 9.12 | 0.51 |

Table S2. Major element glass composition of tephras used for correlation purposes, recalculated to 100% water-free material. aSantacroce et al. (2008); bSulpizio et al. (2009); cWulf et al. (2004); dWulf et al. (2008); eWulf (2000); fWulf et al. (2006); gVogel et al. (2010) hOrsi et al. (1995); iPaterne et al. (1988); jSiani et al. (2004); kPappalardo et al. (1999); lDi Vito et al. (2008); mGiaccio et al. (2008); nWagner et al. (2010); oWagner et al. (2008); pBourne et al. (2010); qMunno and Petrosino (2007); rSulpizio et al. (2010); sWhite et al. (2009); tAvanzinelli et al. (2004); uCivetta et al. (1988); vKeller et al. (1978); wVezzoli et al. (1991).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **SiO2** | **TiO2** | **Al2O3** | **FeOtot** | **MnO** | **MgO** | **CaO** | **Na2O** | **K2O** | **P2O5** | **ClO** | **Tot. Alkali** | **Alk. Ratio** |
| **AD 472** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proximala | **Mean** | 49.79 | 0.5 | 22.23 | 4.95 | 0.15 | 1.01 | 5.63 | 9.2 | 5.41 | 0 | 1.12 | 14.62 | 0.73 |
|  | **SD** | 1.65 | 0.16 | 0.92 | 1.38 | 0.07 | 0.47 | 1.51 | 2.35 | 2.29 | 0 | 0.53 |  |  |
| SK19/Shkodrab | **Mean** | 50.28 | 0.55 | 22.64 | 4.91 | 0.17 | 0.65 | 5.69 | 8.32 | 5.82 | 0.02 | 0.97 | 14.36 | 0.72 |
|  | **SD** | 0.83 | 0.11 | 0.62 | 0.53 | 0.07 | 0.29 | 0.67 | 1.02 | 0.92 | 0.03 | 0.1 |  |  |
| TM-2b/Monticchioc | **Mean** | 50.18 | 0.5 | 21.61 | 4.79 | 0.2 | 0.64 | 5.89 | 7.9 | 6.92 | 0.29 | 1.07 | 14.82 | 0.88 |
|  | **SD** | 1.02 | 0.07 | 0.19 | 0.24 | 0.04 | 0.2 | 0.61 | 0.35 | 0.72 | 0.17 | 0.19 |  |  |
| **AD512** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proximala | **Mean** | 47.81 | 1.05 | 19.4 | 7.97 | 0.2 | 2.97 | 9.11 | 4.6 | 5.85 | 0.31 | 0.75 | 10.45 | 1.28 |
|  | **SD** | 0.98 | 0.17 | 0.61 | 0.53 | 0.13 | 0.8 | 1.05 | 0.53 | 0.58 | 0.15 | 0.14 |  |  |
| TM-2a/  Monticchioc-d | **Mean** | 48.44 | 0.83 | 19.19 | 7.23 | 0.26 | 2.85 | 8.89 | 4.33 | 6.86 | 0.59 | 0.69 | 11.18 | 1.65 |
|  | **SD** | 0.69 | 0.09 | 0.48 | 0.56 | 0.31 | 0.69 | 0.68 | 0.68 | 1.04 | 0.13 | 0.1 |  |  |
| OT0702-1/Ohridg | **Mean** | 48.82 | 0.88 | 20.58 | 7.08 | 0.27 | 1.39 | 8.04 | 6.19 | 5.61 | 0.06 | 1.08 | 11.80 | 0.92 |
|  | **SD** | 1.12 | 0.14 | 0.84 | 0.58 | 0.1 | 0.34 | 1.51 | 0.58 | 0.72 | 0.04 | 0.1 |  |  |
| **Mercato** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proximala | **Mean** | 58.51 | 0.13 | 21.7 | 1.76 | 0.14 | 0.09 | 1.66 | 8.56 | 6.93 | 0 | 0.52 | 15.49 | 0.82 |
|  | **SD** | 0.72 | 0.08 | 0.41 | 0.19 | 0.1 | 0.08 | 0.26 | 0.62 | 0.38 | 0 | 0.09 |  |  |
| TM-6b/  Monticchioc-d | **Mean** | 58.68 | 0.14 | 21.41 | 1.8 | 0.18 | 0.07 | 1.76 | 8.58 | 6.76 | 0.02 | 0.58 | 15.34 | 0.79 |
|  | **SD** | 0.3 | 0.03 | 0.21 | 0.13 | 0.03 | 0.01 | 0.25 | 0.18 | 0.54 | 0.02 | 0.04 |  |  |
| TM-6a/  Monticchioc-d | **Mean** | 59.99 | 0.3 | 20.61 | 2.24 | 0.13 | 0.16 | 2.42 | 5.58 | 8.02 | 0.05 | 0.51 | 13.6 | 1.51 |
|  | **SD** | 0.97 | 0.1 | 0.53 | 0.47 | 0.04 | 0.07 | 0.41 | 1.07 | 0.85 | 0.03 | 0.15 |  |  |
| OT0702-3/Ohridg | **Mean** | 59.10 | 0.17 | 21.58 | 1.95 | 0.17 | 0.16 | 1.76 | 7.56 | 7.02 | 0.00 | 0.52 | 14.58 | 0.93 |
|  | **SD** | 0.55 | 0.09 | 0.13 | 0.11 | 0.07 | 0.09 | 0.13 | 0.56 | 0.27 | 0.00 | 0.03 |  |  |
| **Neapolitan Yellow Tuff (NYT)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proximalh | **Mean** | 55.85 | 0.6 | 18.52 | — | — | 1.79 | 5.01 | 3.38 | 7.93 | — | — | 11.31 | 2.35 |
|  | **SD** |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Mean** | 58.55 | 0.5 | 18.52 | — | — | 1.18 | 3.52 | 3.71 | 8.61 | — | — | 12.32 | 2.32 |
|  | **SD** |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **Mean** | 60.73 | 0.42 | 18.49 | — | — | 0.52 | 2.48 | 4.39 | 8.9 | — | — | 13.29 | 2.03 |
|  | **SD** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 395 cm/NYT/  MD90917j | **Mean** | 59.70 | 0.49 | 18.49 | — | 0.26 | 0.69 | 2.95 | 4.37 | 9.46 | 0.04 | 0.00 | 13.83 | 2.20 |
|  | **SD** | 1.48 | 0.19 | 0.20 | — | 0.17 | 0.35 | 0.67 | 0.51 | 0.43 | 0.09 | 0.00 |  |  |
| **Pre-NYT** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proximal/  Tufi Biancastrik | **Mean** | 61.48 | 0.41 | 18.43 | — | 0.11 | 0.49 | 3.04 | 4.67 | 7.87 | 0.15 | — | 12.54 | 1.68 |
|  | **SD** | 0.53 | 0.02 | 0.15 | — | 0.01 | 0.08 | 0.84 | 0.16 | 0.17 | 0.02 | — |  |  |
| 405 cm/LN1/  MD90917j | **Mean** | 61.66 | 0.45 | 18.12 | — | 0.24 | 0.27 | 2.06 | 5.35 | 8.70 | 0.06 | 0.3 | 14.05 | 1.63 |
|  | **SD** | 0.35 | 0.12 | 0.31 | — | 0.14 | 0.10 | 0.15 | 0.30 | 0.22 | 0.08 | 0.39 |  |  |
| 423 cm/LN2/  MD90917j | **Mean** | 62.14 | 0.43 | 18.09 | — | 0.18 | 0.25 | 1.88 | 5.34 | 8.51 | 0.07 | 0.41 | 13.85 | 1.59 |
|  | **SD** | 0.63 | 0.12 | 0.32 | 0.31 | 0.11 | 0.17 | 0.34 | 0.49 | 0.49 | 0.09 | 0.04 |  |  |
| 434 cm/LAM/ MD90917 j | **Mean** | 58.77 | 0.58 | 18.29 | 3.90 | 0.12 | 0.84 | 3.02 | 4.33 | 9.36 | 0.15 | 0.58 | 13.69 | 2.16 |
|  | **SD** | 1.31 | 0.11 | 0.21 | 0.65 | 0.12 | 0.28 | 0.69 | 0.47 | 0.37 | 0.14 | 0.09 |  |  |
| TM-9/Monticchioc | **Mean** | 63.39 | 0.37 | 18.33 | 2.03 | 0.30 | 0.38 | 1.94 | 4.70 | 8.16 | 0.04 | 0.45 | 12.87 | 1.77 |
|  | **SD** | 0.48 | 0.09 | 0.42 | 0.59 | 0.42 | 0.25 | 0.11 | 0.52 | 0.68 | 0.02 | 0.22 |  |  |
| TM-8-1/Monticchioe | **Mean** | 61.99 | 0.44 | 18.61 | 2.87 | 0.13 | 0.46 | 2.29 | 4.64 | 8.50 | 0.07 | — | 13.14 | 1.83 |
| TTM-10a/ Monticchioe-d | **Mean** | 60.61 | 0.48 | 18.27 | 3.46 | 0.13 | 0.79 | 2.97 | 3.99 | 8.68 | 0.15 | 0.47 | 12.67 | 2.17 |
|  | **SD** | 1.30 | 0.03 | 0.29 | 0.56 | 0.03 | 0.23 | 0.55 | 0.36 | 0.52 | 0.07 | 0.06 |  |  |
| TM-10b/ Monticchioe-d | **Mean** | 60.84 | 0.44 | 18.54 | 3.61 | 0.10 | 0.75 | 2.72 | 4.02 | 8.28 | 0.17 | 0.53 | 12.30 | 2.06 |
|  | **SD** | 1.25 | 0.01 | 0.16 | 0.84 | 0.02 | 0.28 | 0.48 | 0.47 | 0.13 | 0.08 | 0.07 |  |  |
| TM-10c/ Monticchioe-d | **Mean** | 62.13 | 0.43 | 18.42 | 2.67 | 0.13 | 0.38 | 2.08 | 4.85 | 8.28 | 0.07 | 0.56 | 13.14 | 1.70 |
|  | **SD** | 0.08 | 0.04 | 0.11 | 0.10 | 0.03 | 0.02 | 0.05 | 0.13 | 0.13 | 0.05 | 0.03 |  |  |
| TM-10d/ Monticchioe-d | **Mean** | 60.87 | 0.45 | 18.41 | 3.59 | 0.15 | 0.75 | 2.77 | 4.05 | 8.30 | 0.13 | 0.54 | 12.36 | 2.05 |
|  | **SD** | 1.09 | 0.04 | 0.09 | 0.64 | 0.04 | 0.26 | 0.48 | 0.45 | 0.12 | 0.03 | 0.04 |  |  |
| **Y-3** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proximal/SMP1-e/ ZS 98291l | **Mean** | 61.47 | 0.39 | 18.44 | 3.27 | 0.11 | 0.70 | 2.55 | 3.46 | 9.03 | 0.15 | 0.44 | 12.48 | 2.67 |
|  | **SD** | 0.60 | 0.03 | 0.11 | 0.26 | 0.03 | 0.14 | 0.21 | 0.49 | 0.32 | 0.05 | 0.06 |  |  |
| Proximal/SMP1-e/ ZS 2506l | **Mean** | 58.51 | 0.56 | 18.60 | 4.42 | 0.16 | 1.18 | 3.78 | 3.91 | 8.10 | 0.25 | 0.52 | 12.02 | 2.07 |
|  | **SD** | 0.19 | 0.02 | 0.14 | 0.03 | 0.02 | 0.02 | 0.11 | 0.10 | 0.13 | 0.05 | 0.02 |  |  |
|  | **Mean** | 62.33 | 0.43 | 18.74 | 2.80 | 0.12 | 0.44 | 2.27 | 3.87 | 8.34 | 0.05 | 0.60 | 12.21 | 2.16 |
|  | **SD** | 0.40 | 0.01 | 0.17 | 0.15 | 0.02 | 0.07 | 0.07 | 0.15 | 0.04 | 0.06 | 0.01 |  |  |
| Proximal/SMP1-e/ ZS 2507l | **Mean** | 58.49 | 0.50 | 18.64 | 4.32 | 0.15 | 1.15 | 3.63 | 3.67 | 8.75 | 0.27 | 0.44 | 12.41 | 2.39 |
|  | **SD** | 1.38 | 0.11 | 0.10 | 0.86 | 0.02 | 0.39 | 0.82 | 0.13 | 0.99 | 0.09 | 0.04 |  |  |
|  | **Mean** | 61.80 | 0.47 | 18.68 | 2.81 | 0.14 | 0.46 | 2.21 | 4.41 | 8.34 | 0.07 | 0.62 | 12.75 | 1.90 |
|  | **SD** | 0.38 | 0.01 | 0.10 | 0.10 | 0.03 | 0.05 | 0.10 | 0.21 | 0.19 | 0.02 | 0.02 |  |  |
| TM-15/Monticchio*c* | **Mean** | 62.22 | 0.38 | 18.36 | 3.27 | 0.13 | 0.61 | 2.19 | 3.85 | 8.36 | 0.12 | 0.52 | 12.21 | 2.21 |
|  | **SD** | 0.78 | 0.03 | 0.21 | 0.29 | 0.04 | 0.15 | 0.22 | 0.44 | 0.55 | 0.06 | 0.11 |  |  |
| PT0704-1/Co1204n | **Mean** | 61.43 | 0.37 | 18.62 | 3.17 | 0.1 | 0.66 | 2.34 | 3.54 | 9.34 | 0 | 0.43 | 12.88 | 2.68 |
|  | **SD** | 0.59 | 0.06 | 0.11 | 0.24 | 0.07 | 0.15 | 0.22 | 0.41 | 0.39 | 0 | 0.11 |  |  |
| OT0520-2/Lz1120o | **Mean** | 61.88 | 0.29 | 18.63 | 2.92 | 0.03 | 0.5 | 2.2 | 4.18 | 8.82 | 0 | 0.54 | 12.99 | 2.15 |
|  | **SD** | 0.52 | 0.08 | 0.19 | 0.23 | 0.06 | 0.15 | 0.19 | 0.47 | 0.51 | 0 | 0.14 |  |  |
| OT0702-4/Co1202g | **Mean** | 61.27 | 0.39 | 18.70 | 3.11 | 0.11 | 0.67 | 2.35 | 3.73 | 9.22 | 0.00 | 0.46 | 12.96 | 2.52 |
|  | **SD** | 0.64 | 0.06 | 0.12 | 0.21 | 0.07 | 0.18 | 0.25 | 0.46 | 0.48 | 0.00 | 0.10 |  |  |
| **Unknown** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Codola |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proximal/ZS9837l | **Mean** | 58.42 | 0.59 | 19.84 | 3.38 | 0.17 | 0.6 | 3.84 | 3.86 | 9.29 | 0 | 0 | 13.15 | 2.41 |
|  | **SD** | 0.22 | 0.08 | 0.15 | 0.09 | 0.09 | 0.11 | 0.11 | 0.17 | 0.18 | 0 | 0 |  |  |
| Proximal/ZS9836l | **Mean** | 57.76 | 0.56 | 19.66 | 4.03 | 0.13 | 0.68 | 4.59 | 3.86 | 8.08 | 0.11 | 0.54 | 11.94 | 2.14 |
|  | **SD** | 0.57 | 0.05 | 0.47 | 0.46 | 0.03 | 0.15 | 0.4 | 0.48 | 1.11 | 0.03 | 0.06 |  |  |
| Proximal/ZS2002l | **Mean** | 57.92 | 0.53 | 19.74 | 3.56 | 0.15 | 0.59 | 4.28 | 3.57 | 9.06 | 0.11 | 0.51 | 12.63 | 2.54 |
|  | **SD** | 0.07 | 0.03 | 0.13 | 0.17 | 0.01 | 0.05 | 0.06 | 0.05 | 0.14 | 0.02 | 0.05 |  |  |
|  | **Mean** | 53.18 | 0.78 | 18.6 | 7.12 | 0.17 | 1.87 | 6.85 | 3.09 | 7.31 | 0.47 | 0.58 | 10.4 | 2.37 |
|  | **SD** | 1.04 | 0.04 | 0.82 | 0.51 | 0.03 | 0.56 | 1.54 | 0.29 | 0.63 | 0.04 | 0.18 |  |  |
| Proximal/C5m | **Mean** | 51.74 | 0.82 | 19.24 | 6.58 | 0.13 | 1.65 | 8.18 | 3.75 | 6.93 | 0.32 | 0.40 | 10.69 | 1.85 |
|  | **SD** | 1.12 | 0.07 | 0.42 | 0.85 | 0.03 | 0.09 | 0.74 | 0.11 | 0.27 | 0.06 | 0.05 |  |  |
|  | **Mean** | 54.64 | 0.61 | 19.74 | 5.57 | 0.14 | 1.31 | 6.90 | 3.58 | 6.49 | 0.33 | 0.41 | 10.08 | 1.84 |
|  | **SD** | 1.14 | 0.13 | 1.01 | 0.78 | 0.05 | 0.34 | 0.68 | 0.33 | 0.64 | 0.06 | 0.12 |  |  |
| Proximal/C2m | **Mean** | 57.78 | 0.56 | 19.36 | 3.97 | 0.15 | 0.62 | 4.63 | 3.53 | 8.77 | 0.11 | 0.46 | 12.30 | 2.54 |
|  | **SD** | 0.44 | 0.06 | 0.38 | 0.25 | 0.05 | 0.06 | 0.56 | 0.41 | 0.26 | 0.03 | 0.13 |  |  |
| TM-16/Monticchioc | **Mean** | 52.39 | 0.79 | 19.04 | 7.06 | 0.16 | 1.85 | 7.13 | 3.65 | 6.66 | 0.71 | 0.56 | 10.31 | 1.86 |
|  | **SD** | 1.69 | 0.09 | 0.86 | 0.6 | 0.03 | 0.31 | 1.24 | 0.43 | 0.62 | 1.05 | 0.11 |  |  |
|  | **Mean** | 58.58 | 0.5 | 19.7 | 3.66 | 0.12 | 0.55 | 4.3 | 3.4 | 8.58 | 0.1 | 0.5 | 11.98 | 2.56 |
|  | **SD** | 0.65 | 0.06 | 0.41 | 0.33 | 0.03 | 0.14 | 0.95 | 0.49 | 0.4 | 0.04 | 0.08 |  |  |
| OT0702-5/Co1202g | **Mean** | 57.54 | 0.79 | 20.54 | 3.70 | 0.17 | 0.61 | 5.16 | 3.58 | 7.58 | 0.00 | 0.35 | 10.66 | 2.13 |
|  | **SD** | 0.34 | 0.18 | 1.02 | 0.73 | 0.09 | 0.15 | 0.62 | 0.50 | 0.62 | 0.00 | 0.11 |  |  |
| PT0704-2/Co1204n | **Mean** | 55.06 | 0.59 | 22.84 | 3.14 | 0.05 | 1.27 | 9.07 | 3.17 | 4.55 | 0.02 | 0.22 | 7.72 | 1.49 |
|  | **SD** | 1.83 | 0.34 | 1.83 | 1.43 | 0.07 | 0.99 | 2.09 | 0.72 | 1.05 | 0.05 | 0.13 |  |  |
|  | **Mean** | 57.8 | 0.71 | 21.67 | 3.1 | 0 | 0.61 | 5.06 | 3.28 | 7.45 | 0.09 | 0.24 | 10.73 | 2.28 |
|  | **SD** | 0.64 | 0.11 | 1.68 | 1.25 | 0 | 0.32 | 0.49 | 0.22 | 0.29 | 0.11 | 0.11 |  |  |
|  | **Mean** | 61.45 | 0.41 | 18.99 | 3.06 | 0.11 | 0.69 | 2.18 | 4.05 | 8.59 | 0 | 0.48 | 12.64 | 2.32 |
|  | **SD** | 0.65 | 0 | 0.07 | 0.35 | 0.16 | 0.35 | 0.62 | 1.48 | 0.98 | 0 | 0.07 |  |  |
| Taurano |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PT0916-1/Co1216r | **Mean** | 50.22 | 1.09 | 19.05 | 8.12 | 0.17 | 3.68 | 9.39 | 2.91 | 4.78 | 0.33 | 0.26 | 7.69 | 1.64 |
|  | **SD** | 0.70 | 0.14 | 0.42 | 0.49 | 0.09 | 0.33 | 0.74 | 0.29 | 0.49 | 0.11 | 0.06 |  |  |
|  | **Mean** | 59.26 | 0.49 | 20.21 | 2.80 | 0.17 | 0.72 | 2.54 | 4.96 | 8.45 | 0.00 | 0.42 | 13.41 | 1.71 |
|  | **SD** | 0.36 | 0.06 | 0.19 | 0.18 | 0.04 | 0.07 | 0.15 | 0.25 | 0.19 | 0.00 | 0.06 |  |  |
| **Y-5** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proximal PDCsm | **Mean** | 61.90 | 0.40 | 18.35 | 3.09 | 0.21 | 0.47 | 2.03 | 5.15 | 7.74 | 0.09 | 0.59 | 12.89 | 1.54 |
|  | **SD** | 0.85 | 0.04 | 0.32 | 0.27 | 0.08 | 0.16 | 0.34 | 0.58 | 0.51 | 0.06 | 0.20 |  |  |
| Proximal falloutm | **Mean** | 61.33 | 0.42 | 19.16 | 2.89 | 0.24 | 0.35 | 1.75 | 5.96 | 7.00 | 0.05 | 0.84 | 12.96 | 1.18 |
|  | **SD** | 0.50 | 0.02 | 0.22 | 0.12 | 0.03 | 0.02 | 0.06 | 0.33 | 0.19 | 0.02 | 0.08 |  |  |
| TM-18/Monticchioc | **Mean** | 61.69 | 0.42 | 19.11 | 2.93 | 0.24 | 0.35 | 1.73 | 5.66 | 6.83 | 0.05 | 0.78 | 12.49 | 1.22 |
|  | **SD** | 0.46 | 0.02 | 0.21 | 0.09 | 0.02 | 0.02 | 0.07 | 0.71 | 0.29 | 0.03 | 0.05 |  |  |
| OT0520-3/Lz1120o | **Mean** | 61.64 | 0.43 | 19.05 | 3.04 | 0.20 | 0.44 | 1.94 | 5.11 | 7.40 | 0.08 | 0.68 | 12.50 | 1.50 |
|  | **SD** | 0.48 | 0.03 | 0.17 | 0.08 | 0.05 | 0.12 | 0.28 | 0.85 | 0.59 | 0.05 | 0.17 |  |  |
| OT0702-6/Co1202g | **Mean** | 60.80 | 0.40 | 19.14 | 2.94 | 0.19 | 0.47 | 1.76 | 6.32 | 7.32 | 0.00 | 0.66 | 13.64 | 1.17 |
|  | **SD** | 0.31 | 0.10 | 0.11 | 0.13 | 0.10 | 0.08 | 0.20 | 0.45 | 0.26 | 0.00 | 0.10 |  |  |
| PT0704-3/Co1204n | **Mean** | 60.77 | 0.43 | 19.13 | 2.97 | 0.25 | 0.41 | 1.66 | 6.39 | 7.29 | 0.00 | 0.71 | 13.66 | 1.14 |
|  | **SD** | 0.25 | 0.09 | 0.15 | 0.11 | 0.08 | 0.07 | 0.08 | 0.19 | 0.18 | 0.01 | 0.05 |  |  |
|  | **Mean** | 61.52 | 0.40 | 19.28 | 2.96 | 0.23 | 0.46 | 1.65 | 5.63 | 7.23 | 0.00 | 0.64 | 12.86 | 1.29 |
|  | **SD** | 0.55 | 0.10 | 0.43 | 0.18 | 0.09 | 0.09 | 0.09 | 0.24 | 0.40 | 0.00 | 0.11 |  |  |
|  | **Mean** | 60.32 | 0.40 | 18.98 | 3.45 | 0.12 | 0.80 | 2.49 | 3.48 | 9.57 | 0.00 | 0.39 | 13.05 | 2.78 |
|  | **SD** | 1.01 | 0.12 | 0.12 | 0.46 | 0.09 | 0.19 | 0.40 | 0.36 | 0.37 | 0.00 | 0.09 |  |  |
| **SMP1-a** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proximall | **Mean** | 60.26 | 0.46 | 19.40 | 3.15 | 0.26 | 0.36 | 1.87 | 6.38 | 7.10 | 0.05 | 0.90 | 13.48 | 1.11 |
|  | **SD** | 0.16 | 0.03 | 0.09 | 0.05 | 0.04 | 0.02 | 0.05 | 0.16 | 0.08 | 0.03 | 0.02 |  |  |
| TM-8-1d/ Monticchiof | **Mean** | 60.70 | 0.45 | 19.19 | 3.00 | 0.26 | 0.32 | 1.70 | 6.45 | 7.01 | 0.04 | 0.83 | 13.46 | 1.09 |
|  | **SD** | 0.15 | 0.02 | 0.08 | 0.07 | 0.01 | 0.01 | 0.03 | 0.13 | 0.07 | 0.02 | 0.03 |  |  |
| PRAD 1752/ Adriatic Seap | **Mean** | 61.55 | 0.44 | 18.98 | 3.25 | 0.25 | 0.30 | 1.76 | 6.38 | 7.09 | — | — | 13.47 | 1.11 |
|  | **SD** | 0.39 | 0.02 | 0.33 | 0.08 | 0.03 | 0.02 | 0.07 | 0.23 | 0.15 | — | — |  |  |
| **Y-6** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proximal GTs | **Mean** | 71.50 | 0.46 | 9.10 | 7.29 | 0.28 | 0.29 | 0.38 | 6.11 | 4.60 | 0.04 | — | 10.71 | 0.75 |
|  | **Mean** | 67.80 | 0.54 | 14.10 | 5.07 | 0.23 | 0.29 | 0.85 | 6.21 | 4.81 | 0.09 | — | 11.02 | 0.77 |
| Proximal GTt | **Mean** | 72.90 | 0.37 | 8.60 | — | 0.27 | 0.25 | 0.25 | 4.83 | 4.94 | 0.01 | — | 9.77 | 1.02 |
|  | **Mean** | 68.40 | 0.59 | 11.30 | — | 0.30 | 0.31 | 0.65 | 5.25 | 4.71 | 0.03 | — | 9.96 | 0.90 |
| Proximal Gtu | **Mean** | 72.53 | 0.40 | 8.42 | 8.26 | 0.37 | 0.01 | 0.38 | 4.97 | 4.66 | — | — | 9.63 | 1.07 |
|  | **Mean** | 66.47 | 0.66 | 12.68 | 7.59 | 0.27 | 0.32 | 1.28 | 5.56 | 4.56 | 0.05 | 0.19 | 10.12 | 1.22 |
| Y-6/Ionian Seav | **Mean** | 70.90 | 0.44 | 8.20 | — | 0.30 | 0.17 | 0.42 | 6.14 | 4.30 | — | — | 10.44 | 0.70 |
| OT0702-7/Co1202g | **Mean** | 72.52 | 0.41 | 9.34 | 6.70 | 0.31 | 0.12 | 0.34 | 5.06 | 4.50 | 0.00 | 0.71 | 9.55 | 0.91 |
|  | **SD** | 0.79 | 0.09 | 1.23 | 0.40 | 0.06 | 0.06 | 0.07 | 0.71 | 0.31 | 0.00 | 0.08 |  |  |
|  | **Mean** | 66.18 | 0.43 | 16.23 | 4.14 | 0.23 | 0.20 | 0.84 | 5.85 | 5.79 | 0.00 | 0.13 | 11.64 | 0.99 |
|  | **SD** | 0.89 | 0.16 | 3.11 | 3.16 | 0.20 | 0.21 | 0.12 | 0.79 | 1.39 | 0.00 | 0.11 |  |  |
| **Unknown** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S12/San Gregorio Magno basinq | **Mean** | 62.14 | 0.38 | 19.03 | 3.07 | 0.36 | 0.28 | 1.58 | 6.63 | 6.54 | — | — | 13.17 | 0.99 |
|  | **SD** | 0.33 | 0.04 | 0.25 | 0.16 | 0.01 | 0.14 | 0.06 | 0.18 | 0.35 | — | — |  |  |
|  | **Mean** | 60.45 | 0.40 | 18.93 | 3.65 | 0.21 | 0.73 | 2.08 | 4.62 | 8.94 | — | — | 13.56 | 1.94 |
|  | **SD** | 0.90 | 0.02 | 0.18 | 0.24 | 0.14 | 0.20 | 0.22 | 0.53 | 0.50 | — | — |  |  |
| KET8004-870cm/ Tyrrhenian Seai | **Mean** | 62.88 | 0.40 | 18.98 | 2.25 | — | 0.06 | 1.30 | 7.29 | 6.84 | — | — | 14.13 | 0.94 |
|  | **Mean** | 61.92 | 0.32 | 18.87 | 2.69 | — | 0.21 | 2.77 | 4.23 | 8.99 | — | — | 13.22 | 2.13 |
| **Etna** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TM-11/Monticchiof | **Mean** | 60.67 | 1.47 | 17.01 | 5.49 | 0.18 | 1.88 | 3.85 | 5.23 | 3.29 | 0.61 | 0.42 | 8.52 | 0.63 |
|  | **Mean** | 65.53 | 0.82 | 17.05 | 3.32 | 0.20 | 0.88 | 1.88 | 6.12 | 3.71 | 0.14 | 0.47 | 9.83 | 0.61 |
| Et-1/Tyrrhenian Seai | **Mean** | 61.79 | 1.30 | 17.61 | — | — | 1.56 | 3.42 | 6.05 | 3.19 | — | — | 9.24 | 0.53 |
| Et-3/Tyrrhenian Seai | **Mean** | 62.79 | 0.79 | 17.02 | 4.93 | 0.25 | 1.47 | 4.03 | 4.73 | 3.37 | 0.11 | — | 8.10 | 0.71 |
|  | **SD** | 0.77 | 0.11 | 0.62 | 0.49 | 0.11 | 0.24 | 0.39 | 0.34 | 0.37 | 0.08 | — |  |  |
| Y-1/Bannock Basinw | **Mean** | 60.15 | 1.43 | 17.83 | 5.11 | 0.13 | 1.88 | 4.12 | 6.06 | 3.28 | — | — | 9.34 | 0.54 |
| FL/OT0702-2/ Co1202g | **Mean** | 55.98 | 1.62 | 18.18 | 6.52 | 0.21 | 1.94 | 5.35 | 5.86 | 3.63 | 0.40 | 0.30 | 9.49 | 0.61 |