**Table 1.** Oxygen and carbon isotope compositions of aragonitic mollusc shells sampled from (a) the Piedra Alta tsunamite and (b) the Arucas marine deposit.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample | δ18O (‰, VPDB) | Standard deviation | δ13C (‰, VPDB) | Standard deviation |
| PA-01-1 | 1.03 | 0.10 | 2.52 | 0.08 |
| PA-01-2 | 0.93 | 0.05 | 0.64 | 0.08 |
| PA-01-3 | 0.30 | 0.10 | 1.87 | 0.05 |
| PA-01-4 | 0.47 | 0.08 | 1.40 | 0.22 |
| PA-03-1 | 0.49 | 0.00 | 0.29 | 0.29 |
| PA-03-2 | 0.37 | 0.02 | 0.96 | 0.08 |
| PA-03-4 | 0.53 | 0.11 | 1.57 | 0.04 |
| PA-03-5 | 1.60 | 0.04 | 0.33 | 0.02 |
| PA-03-6 | 1.28 | 0.13 | 2.50 | 0.01 |
| PA-03-7 | 0.64 | 0.87 | 0.05 | 0.48 |
| PA-03-8 | 0.91 | 0.12 | 0.52 | 0.05 |
| PA-03-11 | 1.08 | 0.19 | 0.84 | 0.01 |
| PA-03-12 | 1.18 | 0.03 | 1.30 | 0.07 |
| PA-03-13 | 0.16 | 0.05 | -0.28 | 0.00 |
| PA-03-14 | 0.13 | 0.04 | 0.28 | 0.02 |
| PA-04-1 | 0.44 | 0.03 | 2.79 | 0.02 |
| PA-04-2 | 0.26 | 0.03 | 2.37 | 0.04 |
| PA-04-3 | 0.64 | 0.09 | 2.95 | 0.04 |
| PA-04-4 | 0.21 | 0.07 | 1.23 | 0.18 |
| PA-04-5 | 0.39 | 0.11 | 2.79 | 0.09 |
| PA-04-7 | 0.40 | 0.18 | 1.52 | 0.01 |
| PA-04-8 | 0.73 | 0.00 | 2.53 | 0.04 |
| PA-05-1 | 0.48 | 0.08 | 1.06 | 0.05 |
| PA-05-2 | 0.98 | 0.01 | 1.29 | 0.06 |
| PA-05-3 | -0.15 | 0.03 | 1.30 | 0.04 |
| PA-05-4 | 0.18 | 0.13 | 0.69 | 0.01 |
| PA-05-6 | 0.64 | 0.02 | 2.24 | 0.04 |
| PA-06-1 | 0.93 | 0.05 | 2.30 | 0.08 |
| PA-06-2 | 0.29 | 0.03 | 1.80 | 0.03 |
| PA-06-3 | 0.90 | 0.02 | 2.36 | 0.05 |
| PA-06-4 | 0.63 | 0.04 | 2.46 | 0.04 |
| PA-09-01 | 1.23 | 0.05 | 2.15 | 0.00 |
| PA-09-02 | 0.86 | 0.10 | 2.59 | 0.09 |
| PA-09-03 | 0.04 | 0.04 | 1.29 | 0.02 |
| PA-09-04 | -0.21 | 0.14 | 0.86 | 0.03 |
| PA-09-05 | 0.73 | 0.03 | 1.81 | 0.01 |
| PA-09-06 | 0.15 | 0.11 | 0.63 | 0.02 |
| PA-09-07 | 0.78 | 0.04 | 2.05 | 0.02 |
| PA-09-08 | -0.26 | 0.07 | 1.85 | 0.06 |
| PA-10-1 | 0.16 | 0.09 | 1.06 | 0.01 |
| PA-10-2 | 0.24 | 0.13 | 0.78 | 0.03 |
| PA-10-3 | 0.75 | 0.03 | 0.53 | 0.03 |
| PA-10-4 | 0.00 | 0.02 | 1.21 | 0.05 |
| PA-10-7 | 0.59 | 0.08 | 1.43 | 0.04 |
| PA-11-1 | -1.38 | 0.02 | -2.71 | 0.00 |
| PA-11-2 | -1.40 | 0.09 | -1.88 | 0.05 |

(a)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample | δ18O (‰, VPDB) | Standard deviation | δ13C (‰, VPDB) | Standard deviation |
| ARU-01-01 | 1.15 | 0.03 | 2.32 | 0.05 |
| ARU-01-02 | 1.22 | 0.14 | 2.06 | 0.10 |
| ARU-01-03 | 0.80 | - | 2.40 | 0.19 |
| ARU-02-01 | 0.95 | 0.04 | 1.73 | 0.08 |
| ARU-02-02 | 0.77 | 0.17 | 1.49 | - |
| ARU-02-03 | 1.23 | 0.06 | 1.79 | 0.01 |
| ARU-02-04 | 1.23 | 0.01 | 1.70 | 0.15 |
| ARU-02-05 | 2.45 | - | 2.20 | - |
| ARU-03-01 | 1.84 | 0.02 | 2.65 | 0.06 |
| ARU-03-02 | 1.43 | 0.00 | 2.48 | 0.06 |
| ARU-03-03 | 2.65 | - | 1.32 | - |
| ARU-03-04 | 2.32 | 0.05 | 2.93 | 0.08 |
| ARU-03-05 | 1.67 | 0.02 | 3.02 | 0.10 |
| ARU-03-06 | 1.41 | 0.03 | 3.52 | 0.04 |
| ARU-03-07 | 2.49 | 0.01 | 2.58 | 0.04 |
| ARU-03-08 | 1.80 | 0.12 | 3.58 | 0.02 |
| ARU-03-09 | 1.57 | 0.03 | 3.13 | 0.01 |
| ARU-03-10 | 2.83 | 0.07 | 2.38 | 0.00 |
| ARU-04-01 | 1.52 | 0.00 | 0.56 | 0.04 |
| ARU-05-01 | 2.56 | 0.01 | 1.66 | 0.03 |
| ARU-05-02 | 1.66 | 0.01 | 2.43 | 0.03 |
| ARU-05-03 | 1.81 | 0.05 | 1.46 | - |
| ARU-05-04 | 2.01 | - | 1.39 | 0.06 |
| ARU-05-05 | 2.21 | 0.13 | 1.07 | - |
| ARU-06-01 | 1.26 | 0.05 | 1.91 | - |
| ARU-06-02 | 1.33 | 0.03 | 2.09 | 0.19 |
| ARU-06-03 | 1.71 | 0.03 | 2.07 | 0.08 |
| ARU-06-04 | 1.37 | - | 2.67 | - |
| ARU-07-01 | 1.46 | 0.08 | 3.17 | 0.05 |
| ARU-07-02 | 1.71 | - | 2.12 | 0.12 |
| ARU-07-03 | 1.20 | - | 1.26 | - |
| ARU-07-04 | 1.07 | - | 0.82 | - |
| ARU-08-01 | 1.98 | - | 2.37 | 0.17 |
| ARU-08-02 | 1.34 | 0.02 | 3.17 | 0.08 |
| ARU-08-03 | 1.59 | 0.05 | 2.44 | 0.12 |
| ARU-09-01 | 1.16 | 0.00 | 2.07 | - |
| ARU-09-02 | 1.47 | 0.10 | 1.02 | 0.06 |
| ARU-09-03 | 0.79 | 0.11 | 2.97 | - |
| ARU-09-04 | 1.15 | - | 2.09 | - |
| ARU-10-01 | 2.07 | 0.02 | 2.27 | 0.07 |
| ARU-10-02 | 1.58 | 0.05 | 2.60 | 0.07 |
| ARU-10-03 | 1.50 | 0.16 | 2.74 | 0.17 |
| ARU-10-04 | 1.87 | 0.03 | 2.02 | - |
| ARU-11-01 | 1.95 | 0.15 | 2.29 | - |
| ARU-11-02 | 1.62 | 0.08 | 2.20 | - |
| ARU-11-03 | 1.69 | 0.02 | 3.88 | 0.01 |
| ARU-11-04 | 1.38 | 0.12 | 2.29 | 0.14 |
| ARU-12-01 | 1.26 | 0.02 | 2.46 | 0.01 |
| ARU-12-02 | 1.61 | 0.12 | 2.50 | 0.12 |
| ARU-12-03 | 1.41 | 0.13 | 1.97 | 0.07 |
| ARU-12-04 | 1.25 | 0.11 | 2.39 | 0.12 |
| ARU-12-05 | 0.98 | 0.10 | 1.77 | 0.00 |
| ARU-13-01 | 1.19 | 0.17 | 2.25 | - |
| ARU-13-02 | 1.57 | 0.04 | 1.87 | 0.15 |
| ARU-14-01 | 1.26 | 0.04 | 1.02 | 0.01 |
| ARU-14-02 | 1.23 | 0.03 | 2.16 | 0.00 |
| ARU-14-03 | 0.97 | 0.18 | 2.39 | 0.02 |
| ARU-15-01 | 1.47 | - | 3.11 | 0.02 |
| ARU-15-02 | 1.68 | 0.01 | 2.55 | 0.03 |
| ARU-15-03 | 1.33 | - | 3.31 | - |
| ARU-16-01 | 1.76 | 0.13 | 4.08 | 0.02 |
| ARU-16-02 | 0.93 | 0.13 | 3.06 | 0.07 |
| ARU-16-03 | 1.80 | 0.05 | 2.76 | 0.05 |
| ARU-16-04 | 1.42 | 0.10 | 0.46 | 0.02 |
| ARU-17-01 | 1.74 | 0.03 | 4.73 | 0.16 |
| ARU-17-02 | 1.26 | - | 4.50 | 0.16 |
| ARU-17-03 | 1.05 | 0.15 | 4.62 | 0.04 |
| ARU-18-01 | 1.33 | 0.08 | 2.05 | 0.04 |
| ARU-19-01 | 1.70 | 0.14 | 3.02 | 0.14 |
| ARU-19-02 | 1.76 | 0.16 | 4.30 | 0.11 |
| ARU-19-03 | 1.72 | 0.03 | 3.66 | - |
| ARU-19-04 | 1.85 | 0.11 | 2.67 | 0.02 |

(b)