Supplementary Material 2

Main article: 10Be in the Akademii Nauk ice core – first results for CE 1590–1950 and implications for future chronology validation by Luisa von Albedyll, Thomas Opel, Diedrich Fritzsche, Silke Merchel, Thomas Laepple, Georg Rugel

**Table S1**: 10Be data of 77 Akademii Nauk ice core samples with associated uncertainties along with their depth in the core and their age according to the existing age model.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Depth range****(m)** | **Depth centre****(m)** | **Age at centre****(years CE)** | **10Be concentration****(atoms g-1)** | **10Be uncertainty (1σ)****(atoms g-1)** | **Blank correction****(%)** |
| 29.43-30.32 | 29.875 | 1947 | 4.78 ×103 | 3.2 ×102 | 3.0 |
| 34.29-35.00 | 34.645 | 1937 | 1.205 ×104 | 3.4 ×102 | 1.2 |
| 39.11-40.00 | 39.555 | 1924 | 1.324 ×104 | 3.5 ×102 | 1.1 |
| 43.46-44.17 | 43.815 | 1913 | 1.358 ×104 | 3.4 ×102 | 1.1 |
| 47.00-47.92 | 47.46 | 1904 | 1.330 ×104 | 5.2 ×102 | 1.2 |
| 50.00-51.00 | 50.5 | 1896 | 1.975 ×104 | 4.7 ×102 | 0.76 |
| 52.00-52.30 | 52.15 | 1892 | 3.380 ×104 | 7.6 ×102 | 0.5 |
| 54.96-55.97 | 55.465 | 1886 | 1.374 ×104 | 3.9 ×102 | 1.3 |
| 56.98-57.74 | 57.36 | 1881 | 6.73 ×103 | 2.5 ×102 | 2.8 |
| 60.00-61.00 | 60.5 | 1875 | 1.137 ×104 | 3.5 ×102 | 1.3 |
| 62.00-63.00 | 62.5 | 1871 | 1.277 ×104 | 3.2 ×102 | 1.1 |
| 67.00-67.51 | 67.255 | 1862 | 1.544 ×104 | 3.8 ×102 | 0.77 |
| 67.51-68.00 | 67.755 | 1860 | 1.087 ×104 | 3.0 ×102 | 0.81 |
| 68.00-68.50 | 68.25 | 1859 | 1.186 ×104 | 3.2 ×102 | 1.2 |
| 68.50-69.00 | 68.7325 | 1858 | 2.705 ×104 | 6.4 ×102 | 0.53 |
| 72.32-72.785 | 72.5525 | 1852 | 1.246 ×104 | 4.4 ×102 | 0.68 |
| 75.00-76.00 | 75.5 | 1846 | 9.97 ×103 | 3.1 ×102 | 1.6 |
| 78.00-78.70 | 78.35 | 1840 | 1.959 ×104 | 5.1 ×102 | 0.74 |
| 81.00-82.01 | 81.505 | 1835 | 7.90 ×103 | 2.7 ×102 | 1.9 |
| 83.70-84.00 | 83.85 | 1829 | 4.66 ×103 | 2.5 ×102 | 3.8 |
| 83.51-84.73 | 84.12 | 1829 | 9.28 ×103 | 2.4 ×102 | 1.4 |
| 87.67-88.00 | 87.835 | 1822 | 9.70 ×103 | 3.0 ×102 | 1.8 |
| 90.40-91.75 | 91.075 | 1815 | 1.819 ×104 | 4.3 ×102 | 0.73 |
| 92.00-93.00 | 92.5 | 1811 | 1.196 ×104 | 3.4 ×102 | 1.1 |
| 94.00-94.23 | 94.115 | 1806 | 1.016 ×104 | 3.4 ×102 | 1.6 |
| 96.00-97.00 | 96.5 | 1801 | 1.356 ×104 | 3.9 ×102 | 0.83 |
| 97.00-97.68 | 97.34 | 1798 | 2.281 ×104 | 5.4 ×102 | 0.60 |
| 99.00-99.87 | 99.3225 | 1793 | 1.322 ×104 | 3.2 ×102 | 1.1 |
| 101.00-101.45 | 101.225 | 1790 | 5.71 ×103 | 2.1 ×102 | 3.2 |
| 101.00-102.00 | 101.35 | 1790 | 7.82 ×103 | 2.6 ×102 | 1.8 |
| 104.00-105.00 | 104.5 | 1784 | 1.120 ×104 | 3.1 ×102 | 1.1 |
| 105.65-106.00 | 105.825 | 1781 | 8.01 ×103 | 3.7 ×102 | 2.0 |
| 106.00-106.60 | 106.2625 | 1780 | 1.328 ×104 | 3.3 ×102 | 1.0 |
| 108.00-108.73 | 108.3125 | 1776 | 1.381 ×104 | 3.5 ×102 | 0.96 |
| 110.00-111.00 | 110.485 | 1772 | 8.21 ×103 | 3.3 ×102 | 1.4 |
| 113.00-113.23 | 113.115 | 1766 | 6.38 ×103 | 2.8 ×102 | 1.8 |
| 115.00-116.00 | 115.49 | 1760 | 1.318 ×104 | 3.2 ×102 | 0.71 |
| 117.40-118.00 | 117.7 | 1755 | 7.63 ×103 | 2.2 ×102 | 1.6 |
| 119.00-119.42 | 119.21 | 1751 | 1.12 ×103 | 1.6 ×102 | 12 |
| 121.43-121.66 | 121.545 | 1744 | 3.40 ×103 | 1.6 ×102 | 4.2 |
| 123.63-124.01 | 123.82 | 1739 | 1.269 ×104 | 3.9 ×102 | 1.3 |
| 127.00-127.25 | 127.125 | 1731 | 1.380 ×104 | 4.1 ×102 | 0.88 |
| 127.25-128.00 | 127.625 | 1731 | 1.398 ×104 | 3.5 ×102 | 1.2 |
| 129.60-130.00 | 129.8 | 1724 | 1.275 ×104 | 3.8 ×102 | 1.3 |
| 130.00-130.89 | 130.445 | 1722 | 7.66 ×103 | 2.2 ×102 | 1.5 |
| 133.12-134.00 | 133.56 | 1715 | 1.207 ×104 | 3.8 ×102 | 1.0 |
| 135.00-136.00 | 135.5 | 1711 | 1.279 ×104 | 3.3 ×102 | 0.78 |
| 137.01-137.24 | 137.125 | 1705 | 2.796 ×104 | 7.2 ×102 | 0.71 |
| 139.00-140.00 | 139.5 | 1700 | 1.971 ×104 | 4.9 ×102 | 0.82 |
| 140.73-140.98 | 140.855 | 1695 | 9.83 ×103 | 2.9 ×102 | 1.2 |
| 141.17-142.00 | 141.585 | 1693 | 2.758 ×104 | 6.7 ×102 | 0.47 |
| 144.00-145.02 | 144.51 | 1686 | 8.39 ×103 | 2.5 ×102 | 1.1 |
| 146.00-146.57 | 146.285 | 1682 | 2.077 ×104 | 4.8 ×102 | 0.67 |
| 148.00-149.00 | 148.5 | 1677 | 1.283 ×104 | 3.1 ×102 | 0.8 |
| 149.00-150.00 | 149.5 | 1674 | 1.935 ×104 | 4.6 ×102 | 0.33 |
| 150.76-151.00 | 150.88 | 1671 | 1.633 ×104 | 4.9 ×102 | 0.87 |
| 153.00-153.99 | 153.495 | 1665 | 1.361 ×104 | 3.4 ×102 | 0.57 |
| 155.00-155.83 | 155.415 | 1659 | 1.072 ×104 | 2.8 ×102 | 1.2 |
| 157.40-158.00 | 157.7 | 1654 | 1.661 ×104 | 4.4 ×102 | 0.86 |
| 160.26-160.515 | 160.3875 | 1649 | 1.001 ×104 | 3.2 ×102 | 1.4 |
| 162.79-163.00 | 162.895 | 1642 | 9.98 ×103 | 3.2 ×102 | 1.3 |
| 163.04-164.00 | 163.52 | 1640 | 1.181 ×104 | 2.9 ×102 | 0.74 |
| 164.00-165.00 | 164.5 | 1638 | 1.142 ×104 | 3.2 ×102 | 1.1 |
| 165.00-165.89 | 165.445 | 1635 | 1.251 ×104 | 3.5 ×102 | 0.99 |
| 167.00-167.36 | 167.18 | 1631 | 4.76 ×103 | 3.0 ×102 | 3.43 |
| 169.14-170.00 | 169.57 | 1624 | 1.611 ×104 | 3.9 ×102 | 0.76 |
| 169.62-170.00 | 169.81 | 1624 | 1.196 ×104 | 3.5 ×102 | 1.3 |
| 170.00-170.99 | 170.495 | 1622 | 1.413 ×104 | 3.2 ×102 | 0.59 |
| 170.99-172.00 | 171.495 | 1620 | 1.195 ×104 | 3.3 ×102 | 0.54 |
| 173.77-174.00 | 173.885 | 1614 | 3.54 ×103 | 1.6 ×102 | 4.4 |
| 174.98-176.00 | 175.48 | 1609 | 1.348 ×104 | 3.4 ×102 | 0.46 |
| 176.00-176.99 | 176.495 | 1606 | 8.98 ×103 | 2.8 ×102 | 1.3 |
| 177.47-178.39 | 177.93 | 1603 | 1.526 ×104 | 4.7 ×102 | 0.78 |
| 179.00-179.36 | 179.18 | 1600 | 9.07 ×103 | 3.0 ×102 | 2.0 |
| 180.00-181.00 | 180.5 | 1596 | 1.189 ×104 | 3.3 ×102 | 1.2 |
| 182.10-183.00 | 182.55 | 1591 | 1.893 ×104 | 5.0 ×102 | 0.66 |
| 182.63-183.00 | 182.815 | 1590 | 2.172 ×104 | 8.3 ×102 | 0.84 |