

Supplementary Table 1. Summary of the results.

Sample	Oxide contents (wt.%)						t (Ma)
	wThO ₂ *	σwThO ₂	wUO ₂ *	σwUO ₂	wPbO*	σwPbO	
KP5H-3	26.610	0.024	0.349	0.005	0.627	0.005	530.9
KP5H-4	26.813	0.024	0.338	0.005	0.638	0.005	536.9
KP5H-5	26.919	0.024	0.351	0.005	0.640	0.005	535.7
KP5H-6	7.485	0.014	0.482	0.005	0.201	0.005	520.5
KP5H-7	7.658	0.014	0.483	0.005	0.207	0.005	525.8
KP5H-8	9.272	0.015	0.510	0.005	0.241	0.005	517.2
KP5H-9	11.781	0.017	0.509	0.005	0.304	0.005	530.7
KP5H-10	18.574	0.021	0.523	0.005	0.483	0.005	558.7
KP5H-11	11.405	0.017	0.517	0.005	0.298	0.005	534.0
C25A-2	4.243	0.011	0.983	0.005	0.750	0.006	2108.3
C25A-3	4.243	0.011	0.992	0.005	0.736	0.006	2067.1
C25A-4	4.175	0.011	0.981	0.005	0.738	0.006	2096.4
C25A-5	5.001	0.012	1.152	0.005	0.862	0.006	2068.2
C25A-6	4.914	0.012	1.126	0.005	0.852	0.006	2083.1
C25A-7	4.168	0.011	0.942	0.005	0.707	0.005	2055.7
C25A-8	4.120	0.011	0.926	0.005	0.695	0.005	2050.4
C25A-9	4.191	0.011	0.906	0.005	0.697	0.005	2056.8
C25A-10	4.982	0.012	0.812	0.005	0.738	0.006	2061.5
C25A-11	5.026	0.012	0.859	0.005	0.731	0.005	1996.2
C25A-12	5.135	0.012	0.943	0.005	0.799	0.006	2064.2
C25A-13	5.579	0.012	0.857	0.005	0.809	0.006	2063.4
C25A-14	5.202	0.012	1.011	0.005	0.827	0.006	2060.0
C25A-15	4.714	0.012	0.987	0.005	0.770	0.006	2050.4
C25A-16	4.023	0.011	0.944	0.005	0.712	0.006	2099.7
C25A-17	4.364	0.011	0.979	0.005	0.747	0.006	2077.8
C25A-18	5.137	0.012	1.072	0.005	0.805	0.006	1980.7
C25A-19	5.272	0.012	0.989	0.005	0.829	0.006	2067.2
C25A-20	5.439	0.012	0.902	0.005	0.805	0.006	2047.9
C25A-21	4.880	0.012	0.991	0.005	0.788	0.006	2054.0
C25A-22	4.190	0.011	0.991	0.005	0.726	0.006	2055.5
C25A-23	4.177	0.011	0.971	0.005	0.708	0.005	2031.3
C25A-24	4.076	0.011	0.949	0.005	0.690	0.005	2027.8
C25A-25	5.425	0.012	0.867	0.005	0.776	0.006	2012.6
C25A-26	4.949	0.012	1.126	0.005	0.824	0.006	2017.7
C25A-27	4.690	0.012	0.832	0.005	0.700	0.005	2015.5

C54D-1	24.263	0.023	0.460	0.005	2.286	0.007	1991.8
C54D-2	24.710	0.024	0.417	0.005	2.325	0.007	2003.2
C54D-3	24.821	0.024	0.414	0.005	2.317	0.007	1989.7
C54D-4	24.666	0.024	0.429	0.005	2.290	0.007	1974.8
C54D-5	24.692	0.024	0.421	0.005	2.291	0.007	1975.9
C54D-6	24.619	0.024	0.405	0.005	2.308	0.007	1999.2
C54D-7	24.794	0.024	0.393	0.005	2.310	0.007	1991.6
C54D-8	24.754	0.024	0.376	0.005	2.334	0.008	2018.6
C54D-9	24.502	0.024	0.351	0.005	2.275	0.007	1995.5
C54D-10	22.600	0.023	0.358	0.005	2.091	0.007	1978.7
C54D-11	22.676	0.023	0.340	0.005	2.073	0.007	1962.1
C54D-12	22.700	0.023	0.360	0.005	2.054	0.007	1937.5
C54D-13	22.653	0.023	0.315	0.005	2.071	0.007	1969.4
C54D-14	22.676	0.023	0.309	0.005	2.084	0.007	1981.1
C54D-15	23.315	0.023	0.337	0.005	2.139	0.007	1972.2
C54D-16	21.208	0.022	0.297	0.005	1.930	0.007	1960.2
C54D-17	21.163	0.022	0.297	0.005	1.938	0.007	1971.6
C54D-18	21.158	0.022	0.294	0.005	1.934	0.007	1969.2
C54D-19	23.442	0.023	0.323	0.005	2.133	0.007	1961.5
C54D-20	22.818	0.023	0.316	0.005	2.094	0.007	1976.8
C54D-21	24.636	0.024	0.379	0.005	2.271	0.007	1974.9
C54D-22	24.703	0.024	0.385	0.005	2.284	0.007	1979.1
C54D-23	24.662	0.024	0.375	0.005	2.258	0.007	1963.5
C54D-24	24.316	0.024	0.354	0.005	2.218	0.007	1960.9
C54D-26	23.737	0.023	0.332	0.005	2.198	0.007	1992.7
C54D-27	23.118	0.023	0.335	0.005	2.088	0.007	1943.1
C54D-28	23.065	0.023	0.333	0.005	2.107	0.007	1964.4
C54D-29	23.700	0.023	0.332	0.005	2.129	0.007	1936.4
C54D-30	24.002	0.023	0.346	0.005	2.211	0.007	1980.1
C54D-32	22.755	0.023	0.312	0.005	2.014	0.007	1911.4
C54D-34	22.292	0.023	0.306	0.005	2.057	0.007	1987.9
C54D-35	22.268	0.023	0.302	0.005	1.994	0.007	1933.5
C54D-36	22.210	0.023	0.269	0.005	1.821	0.007	1787.5
C54D-37	22.292	0.023	0.307	0.005	1.995	0.007	1931.1
C54D-38	23.284	0.023	0.350	0.005	2.143	0.007	1974.3
C54D-39	22.979	0.023	0.337	0.005	2.065	0.007	1932.8
C54D-40	22.974	0.023	0.427	0.005	2.175	0.007	2003.3
C54D-42	23.045	0.023	0.414	0.005	2.146	0.007	1976.6
C54D-43	22.827	0.023	0.450	0.005	2.147	0.007	1983.6

C54D-44	22.621	0.023	0.490	0.005	2.143	0.007	1984.2
C54D-45	22.582	0.023	0.508	0.005	2.132	0.007	1972.5
C54D-46	22.929	0.023	0.473	0.005	2.168	0.007	1987.4
C54D-48	22.832	0.023	0.437	0.005	2.131	0.007	1973.1
C54D-49	22.812	0.023	0.464	0.005	2.166	0.007	1997.1
C54D-50	22.377	0.023	0.490	0.005	2.115	0.007	1978.4
C54D-51	22.618	0.023	0.470	0.005	2.140	0.007	1987.6
C54D-52	22.794	0.023	0.456	0.005	2.163	0.007	1998.2
C54D-53	24.006	0.023	0.463	0.005	2.258	0.007	1986.5
C54D-54	24.184	0.023	0.436	0.005	2.306	0.007	2020.6
C54D-55	21.202	0.022	0.304	0.005	1.937	0.007	1965.2

wThO₂*, wUO₂*, wPbO*: data measured by Kadowaki and Tsunogae (2020).

first*: first-order approximation.

second*: second-order approximation.

HM*: Hokada and Motoyoshi (2006).

HM_corr*: corrected after Hokada and Motoyoshi (2006).

σ (Ma)				Săbău (2012)	
first*	second*	HM*	HM_corr*	t (Ma)	σ (Ma)
4.6	4.5	26.6	4.8	531.1	4.9
4.6	4.5	26.4	4.9	537.1	5.0
4.6	4.4	26.3	4.8	535.9	4.9
12.2	11.8	83.3	13.1	521.4	12.0
12.0	11.5	81.7	12.8	526.6	11.8
10.4	10.0	68.8	11.1	517.9	10.2
8.6	8.3	55.7	9.1	531.3	8.6
6.0	5.8	36.6	6.4	559.1	6.2
8.8	8.5	57.2	9.3	534.7	8.7
19.1	15.5	105.8	21.1	2116.5	17.4
18.9	15.4	105.5	21.0	2075.2	17.2
19.3	15.7	107.0	21.4	2104.6	17.5
16.7	13.6	90.0	18.5	2076.3	15.4
17.1	13.9	91.7	19.0	2091.2	15.8
19.4	15.8	108.8	21.4	2063.6	17.6
19.6	16.0	110.3	21.7	2058.3	17.9
19.6	16.1	110.0	21.7	2064.6	17.9
18.5	15.4	101.8	20.3	2068.2	17.2
17.8	14.9	99.4	19.5	2003.0	16.6
17.5	14.4	95.1	19.2	2071.4	16.2
17.1	14.3	92.5	18.7	2070.0	16.1
17.1	14.1	92.0	18.8	2067.4	15.9
18.0	14.8	98.9	19.9	2058.1	16.6
19.9	16.1	111.1	22.0	2107.9	18.0
18.8	15.3	104.2	20.8	2085.8	17.1
16.5	13.6	90.9	18.2	1988.1	15.3
17.0	14.1	91.9	18.7	2074.5	15.9
17.2	14.3	92.7	18.8	2054.7	16.1
17.7	14.5	96.6	19.5	2061.5	16.3
19.0	15.5	106.3	21.1	2063.6	17.3
19.1	15.6	107.4	21.2	2039.2	17.4
19.4	15.9	110.0	21.6	2035.7	17.7
17.3	14.4	94.0	18.9	2019.1	16.2
16.8	13.8	91.4	18.6	2025.5	15.5
18.9	15.7	105.3	20.7	2022.4	17.5

7.3	6.6	28.5	7.6	1993.1	9.8
7.2	6.5	28.2	7.6	2004.4	9.8
7.2	6.5	28.1	7.6	1990.8	9.8
7.2	6.5	28.2	7.5	1975.9	9.7
7.2	6.5	28.2	7.6	1977.0	9.7
7.3	6.6	28.3	7.6	2000.3	9.8
7.2	6.5	28.2	7.6	1992.7	9.8
7.3	6.6	28.2	7.6	2019.7	9.9
7.3	6.6	28.6	7.7	1996.5	9.9
7.7	6.9	30.9	8.0	1979.7	10.0
7.6	6.9	30.9	8.0	1963.1	10.0
7.5	6.8	30.8	7.9	1938.5	9.9
7.7	6.9	31.0	8.0	1970.3	10.0
7.7	6.9	31.0	8.0	1982.0	10.1
7.5	6.8	30.1	7.9	1973.2	9.9
8.0	7.3	33.1	8.4	1961.2	10.2
8.0	7.3	33.2	8.4	1972.6	10.3
8.0	7.3	33.2	8.4	1970.1	10.3
7.5	6.8	30.0	7.8	1962.4	9.9
7.6	6.9	30.8	8.0	1977.8	10.0
7.2	6.5	28.4	7.6	1975.9	9.8
7.2	6.5	28.3	7.6	1980.2	9.8
7.2	6.5	28.4	7.6	1964.5	9.7
7.3	6.6	28.8	7.6	1961.8	9.8
7.4	6.7	29.6	7.8	1993.7	9.9
7.5	6.8	30.3	7.9	1944.1	9.9
7.5	6.8	30.4	7.9	1965.4	9.9
7.4	6.7	29.6	7.7	1937.3	9.8
7.4	6.7	29.2	7.7	1981.0	9.9
7.5	6.8	30.9	7.9	1912.3	9.8
7.7	7.0	31.5	8.1	1988.8	10.1
7.7	7.0	31.6	8.0	1934.4	10.0
7.4	6.8	31.8	7.7	1788.2	9.5
7.7	6.9	31.5	8.0	1932.0	9.9
7.5	6.8	30.1	7.8	1975.3	9.9
7.5	6.8	30.5	7.8	1933.7	9.8
7.6	6.8	30.2	8.0	2004.6	10.0
7.5	6.8	30.1	7.9	1977.8	9.9
7.6	6.8	30.3	7.9	1984.9	9.9

7.6	6.8	30.4	8.0	1985.6	9.9
7.6	6.8	30.4	7.9	1973.9	9.9
7.5	6.8	30.1	7.9	1988.8	9.9
7.6	6.8	30.3	7.9	1974.3	9.9
7.6	6.8	30.3	8.0	1998.5	9.9
7.6	6.9	30.7	8.0	1979.8	9.9
7.6	6.8	30.5	8.0	1989.0	9.9
7.6	6.8	30.3	8.0	1999.6	10.0
7.3	6.6	28.8	7.7	1987.8	9.8
7.3	6.6	28.7	7.7	2021.8	9.9
8.0	7.2	33.1	8.3	1966.2	10.2