

**Table S1.** Validation data for elemental analysis by ICP-OES

	wavelength	DL	range	uncertainty		wavelength	DL	range	uncertainty
	nm	mg kg <sup>-1</sup>	mg kg <sup>-1</sup>	%		nm	mg kg <sup>-1</sup>	mg kg <sup>-1</sup>	%
<b>Ag</b>	328.068	0.0086	DL-200	10.0	<b>Mo</b>	202.032	0.044	DL-100	3.1
<b>Al</b>	394.401	x	200-4000	6.5	<b>Na</b>	588.995	0.26	DL-1000	6.7
<b>Al</b>	396.152	0.0053	DL-200	2.9	<b>Na</b>	589.592	x	1000-10000	3.4
<b>As</b>	188.980	0.012	DL-100	14.6	<b>Nb</b>	313.078	0.0067	DL-100	5.8
<b>Au</b>	197.742	0.0092	DL-100	18.0	<b>Nd</b>	406.108	0.012	DL-100	6.2
<b>B</b>	249.772	0.047	DL-200	3.4	<b>Ni</b>	231.604	0.0092	DL-200	8.0
<b>Ba</b>	455.403	0.002	DL-200	9.0	<b>Os</b>	225.585	0.021	DL-100	9.5
<b>Be</b>	313.042	0.026	DL-100	12.0	<b>Pb</b>	220.353	0.023	DL-200	4.2
<b>Bi</b>	223.061	0.065	DL-200	4.1	<b>Pd</b>	340.458	0.025	DL-100	9.0
<b>Ca</b>	315.887	x	2000-10000	6.4	<b>Pr</b>	417.939	0.032	DL-100	9.8
<b>Ca</b>	422.673	0.036	DL-2000	2.8	<b>Pt</b>	203.646	0.021	DL-100	29.8
<b>Cd</b>	214.439	0.0026	DL-200	10.1	<b>Rb</b>	780.026	0.045	DL-100	10.1
<b>Ce</b>	446.021	0.023	DL-100	13.6	<b>Re</b>	197.248	0.032	DL-100	5.0
<b>Co</b>	238.892	0.0029	DL-200	1.6	<b>Rh</b>	343.488	0.035	DL-100	13.3
<b>Cr</b>	267.716	0.0033	DL-200	4.0	<b>Ru</b>	240.272	0.021	DL-100	9.4
<b>Cs</b>	697.327	0.02	DL-1000	12.1	<b>S</b>	181.972	0.44	DL-1000	15.7
<b>Cu</b>	327.395	0.0027	DL-200	9.6	<b>Sb</b>	206.834	0.012	DL-100	14.0
<b>Dy</b>	364.540	0.023	DL-100	6.7	<b>Sc</b>	361.383	0.024	DL-100	3.0
<b>Er</b>	349.910	0.018	DL-100	7.9	<b>Se</b>	196.026	0.011	DL-100	16.4
<b>Eu</b>	420.504	0.034	DL-100	3.0	<b>Si</b>	288.158	0.59	DL-1000	19.2
<b>Fe</b>	238.204	0.0084	DL-1000	1.6	<b>Sm</b>	442.434	0.026	DL-100	9.8
<b>Fe</b>	261.382	x	100-4000	0.89	<b>Sn</b>	283.998	0.067	DL-100	12.3
<b>Ga</b>	294.363	0.0097	DL-200	3.4	<b>Sr</b>	460.733	0.0092	DL-200	5.3
<b>Gd</b>	342.246	0.034	DL-100	6.1	<b>Ta</b>	268.517	0.012	DL-100	6.5
<b>Ge</b>	209.426	0.039	DL-100	2.2	<b>Tb</b>	350.914	0.027	DL-100	7.3
<b>Hf</b>	264.141	0.012	DL-100	5.8	<b>Te</b>	214.282	0.011	DL-100	5.5
<b>Hg</b>	194.164	0.023	DL-100	14.6	<b>Th</b>	283.730	0.015	DL-100	4.1
<b>Ho</b>	348.484	0.031	DL-100	11.9	<b>Ti</b>	336.122	0.021	DL-100	5.7
<b>In</b>	230.606	0.025	DL-200	8.0	<b>Tl</b>	190.794	0.024	DL-200	7.3
<b>Ir</b>	205.116	0.0097	DL-100	6.5	<b>Tm</b>	336.261	0.031	DL-100	7.6
<b>K</b>	766.491	0.34	DL-1000	1.3	<b>U</b>	385.957	0.011	DL-100	5.6
<b>K</b>	769.897	x	1000-10000	0.53	<b>V</b>	292.401	0.018	DL-100	6.2
<b>La</b>	398.852	0.0086	DL-100	6.8	<b>W</b>	207.912	0.027	DL-1000	12.3
<b>Li</b>	670.783	0.0044	DL-200	16.6	<b>Y</b>	361.104	0.031	DL-100	6.2
<b>Lu</b>	307.760	0.031	DL-100	2.9	<b>Yb</b>	328.937	0.014	DL-100	3.8
<b>Mg</b>	279.553	0.008	DL-500	9.7	<b>Zn</b>	213.857	0.0022	DL-200	3.5
<b>Mg</b>	285.213	x	500-5000	4.5	<b>Zr</b>	343.823	0.018	DL-100	6.5
<b>Mn</b>	257.610	0.0021	DL-200	1.8					