

An improved chromatographic method for separation of Re- PGE mass fractions in organic-rich geological samples

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Table S1 Comparison of the analytical results of Re-Os for USGS SBC-1

Sample	Re(ppb)	SE	Os(ppb)	SE	¹⁸⁷ Re/ ¹⁸⁸ Os	SE	¹⁸⁷ Os/ ¹⁸⁸ Os	SE
Cation exchange method*								
1	10.934	0.010	0.10744	0.00010	804.2	1.3	5.0335	0.0067
2	10.913	0.010	0.10372	0.00010	850.5	1.4	5.3206	0.0073
3	11.225	0.011	0.10558	0.00010	851.3	1.4	5.2004	0.0069
4	10.980	0.010	0.10521	0.00010	836.7	1.3	5.2161	0.0069
5	10.976	0.010	0.10452	0.00010	849.9	1.4	5.3365	0.0071
6	11.167	0.010	0.10571	0.00010	842.3	1.3	5.1474	0.0070
7	10.883	0.010	0.10310	0.00011	853.3	1.4	5.3216	0.0080
8	10.871	0.010	0.10388	0.00010	839.9	1.4	5.2292	0.0072
Mean	10.99		0.1049		841		5.23	
SD	0.13		0.0014		16		0.10	
Anion exchange method**								
1	10.929	0.015	0.10516	0.00033	847.6	4.6	5.436	0.028
2	10.947	0.015	0.10656	0.00033	828.8	4.4	5.296	0.026
3	10.860	0.096	0.10284	0.00021	857.5	8.1	5.380	0.018
4	10.932	0.022	0.10391	0.00015	815.0	2.2	4.7854	0.0089
5	10.908	0.020	0.09969	0.00023	862.9	2.7	5.008	0.018
Mean	10.915		0.1036		842		5.18	
SD	0.034		0.0026		20		0.28	

*The sample was analyzed for Re-Os with the newly developed method in this study;

**The sample was analyzed for Re-Os with the method reported in Chu et al¹, with which the anion exchange method was used for Re separation.

1. Z. Chu, Y. Yan, Z. Chen, J. Guo, Y. Yang, C. Li and Y. Zhang, *Geostand. Geoanal. Res.*, 2015, **39**, 151-169.