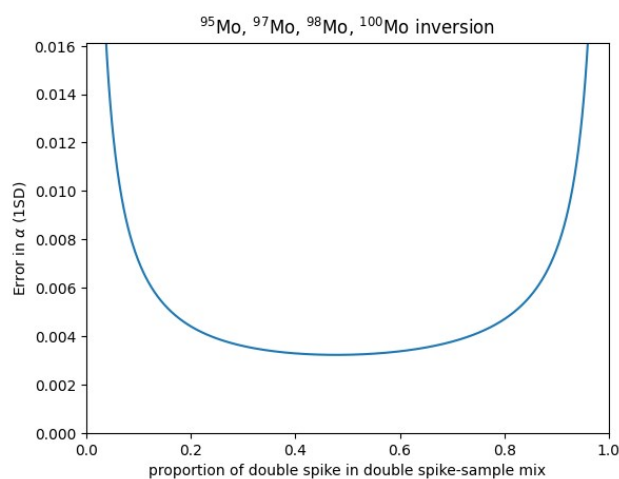


Electronic supplementary information (ESI)



ESI Figure S1. Theoretical mass fractionation factor error curves simulated based on toolbox of Rudge et al.⁷

ESI Table S1 Measured Mo isotope ratios for mixture of NIST SRM 3134 Mo solution and double spike

Samples	$^{97/95}\text{Mo}$	2SE	$^{98/95}\text{Mo}$	2SE	$^{100/95}\text{Mo}$	2SE
STD-1	3.369531	0.000089	1.710801	0.000047	3.329690	0.000094
STD-2	3.369424	0.000065	1.710754	0.000037	3.329573	0.000075
STD-3	3.369433	0.000069	1.710748	0.000041	3.329599	0.000082
STD-4	3.369616	0.000079	1.710883	0.000047	3.330050	0.000079
STD-5	3.369878	0.000085	1.711031	0.000042	3.330479	0.000097
STD-6	3.369696	0.000071	1.710930	0.000041	3.330141	0.000089
STD-7	3.369772	0.000079	1.710991	0.000053	3.330413	0.000075
STD-8	3.369629	0.000077	1.710882	0.000037	3.330063	0.000081
STD-9	3.369891	0.000068	1.711033	0.000048	3.330516	0.000086
STD-10	3.369822	0.000094	1.711058	0.000052	3.330650	0.000093
STD-11	3.370006	0.000080	1.711149	0.000049	3.330899	0.000091
STD-12	3.369968	0.000074	1.711131	0.000040	3.330859	0.000087
STD-13	3.369916	0.000092	1.711096	0.000057	3.330686	0.000095
STD-14	3.369904	0.000069	1.711077	0.000040	3.330771	0.000072
STD-15	3.370008	0.000074	1.711151	0.000033	3.330891	0.000076
STD-16	3.369995	0.000089	1.711115	0.000055	3.330821	0.000085
STD-17	3.370092	0.000072	1.711189	0.000050	3.330969	0.000079

ESI Code 1. Python code for calculating theoretical mass fractionation factor errors for Mo isotope system

ESI Code 2. Python code for calculating propagated errors by Monte Carlo simulation