

The Isotopic Signature of Lead Emanations during the Fire at Notre Dame Cathedral in Paris, France

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Supplemental information

Table S1. Figure of merits for the determination of the lead isotopic compositions of the certified material SRM-981 (NIST) and lead isotopic ratio of CRM SS1 (SCP Science) and SRM 2583 (NIST) materials.

Pb Isotopic Ratios	Standard Reference Material 981 (Certified Isotopic Ratio)						Standards Materials (Not Certified Isotopic Ratio)	
	Average after Correction with Bracketing Method (<i>n</i> = 20)	Average without Correction with Bracketing Method (<i>n</i> = 20)	SRM981 Certified Values	Mean Mass Bias with Correction	Mean Mass Bias without Correction	Contribution of Analytic Blank on Ratios	CRM SS1 (Soil) Average after Correction with Bracketing Method (<i>n</i> = 1)	SRM 2583 (Dust) Average after Correction with Bracketing Method (<i>n</i> = 1)
207/206	0.914	0.898	0.915	0.000	0.017	0.43%	0.823	0.904
Standard deviation (SD)	0.002	0.002					0.002	0.002
RSD (%)	0.21	0.17						
208/206	2.168	2.122	2.168	0.000	0.046	0.41%	2.023	2.149
Standard deviation (SD)	0.006	0.004					0.004	0.008
RSD (%)	0.27	0.21						
206/204	16.944	17.125	16.937	-0.007	-0.188	0.46%	19.070	17.159
Standard deviation (SD)	0.037	0.033					0.025	0.034

RSD (%)	0.22	0.19															
208/207	2.371	2.364	2.370	0.000	0.006	0.43%	2.458	2.377									
Standard deviation (SD)	0.006	0.004					0.005	0.009									
RSD (%)	0.25	0.18															
207/204	15.494	15.373	15.491	-0.003	0.118	0.47%	15.693	15.510									
Standard deviation (SD)	0.034	0.028					0.023	0.034									
RSD (%)	0.22	0.18															
208/204	36.731	36.346	36.721	-0.009	0.375	0.46%	38.570	36.868									
Standard deviation (SD)	0.103	0.078					0.075	0.134									
RSD (%)	0.28	0.21															

Table S2. Roof and dust samples lead isotopic composition.

Pb Isotopic Ratios	Roof_1	Roof_2	Roof_3	Roof_4	Roof_5	Roof_6	Roof_7	Roof_8	Dust_1	Dust_2	Dust_3	Dust_4	Dust_5	Dust_6	Dust_7	Dust_8	Dust_9
207/206	0.8552	0.8760	0.8453	0.8524	0.8502	0.8560	0.8493	0.8559	0.8570	0.8605	0.8568	0.8549	0.8546	0.8572	0.8561	0.8575	0.8591
2 × SD 207/206	0.0027	0.0028	0.0071	0.0034	0.0044	0.0026	0.0031	0.0025	0.0038	0.0034	0.0056	0.0056	0.0040	0.0043	0.0030	0.0016	0.0033
208/206	2.1540	2.1242	2.0844	2.0968	2.0952	2.1006	2.0917	2.0946	2.0978	2.2258	2.0998	2.0959	2.1150	2.0982	2.0984	2.1036	2.1034
2 × SD 208/206	0.0155	0.0076	0.0171	0.0090	0.0127	0.0132	0.0111	0.0171	0.0190	0.0116	0.0173	0.0103	0.0930	0.0099	0.0104	0.0149	0.0112
206/204	18.3175	17.7791	18.5128	18.3362	18.3764	18.2213	18.4161	18.2847	18.2667	18.2276	18.2220	18.3067	18.2636	18.2603	18.2492	18.2191	18.1842
2 × SD 206/204	0.0889	0.0778	0.1441	0.1177	0.0664	0.0586	0.0769	0.1074	0.1218	0.0701	0.0698	0.1007	0.0532	0.1368	0.0917	0.0841	0.0630
208/207	2.5189	2.4248	2.4660	2.4598	2.4643	2.4540	2.4627	2.4473	2.4479	2.5866	2.4508	2.4515	2.4748	2.4476	2.4511	2.4532	2.4485
2 × SD 208/207	0.0175	0.0075	0.0160	0.0110	0.0138	0.0146	0.0133	0.0169	0.0207	0.0162	0.0146	0.0133	0.1035	0.0117	0.0102	0.0151	0.0139
207/204	15.6644	15.5751	15.6479	15.6304	15.6241	15.5973	15.6412	15.6494	15.6538	15.6854	15.6121	15.6508	15.6077	15.6534	15.6229	15.6230	15.6214
2 × SD 207/204	0.0563	0.0765	0.0588	0.0680	0.0919	0.0513	0.0666	0.1160	0.0766	0.0595	0.0622	0.0839	0.0751	0.0919	0.0831	0.0631	0.0443
208/204	39.4568	37.7665	38.5873	38.4479	38.5025	38.2758	38.5205	38.2992	38.3188	40.5712	38.2628	38.3684	38.6266	38.3133	38.2937	38.3257	38.2495
2 × SD 208/204	0.2563	0.1870	0.1699	0.2499	0.2019	0.1805	0.1907	0.4833	0.1932	0.2459	0.2832	0.2168	1.6670	0.3585	0.2019	0.2551	0.2081