

1 **Supplementary Information**

2 **1. Analytical methodology**

3 **1.1 Aerosol collection:** The sample collector was positioned at the top of a 17-meter scaffold
4 tower whose base is 30 meters above sea level. To minimize the impact of local sources, the
5 sampler was controlled by a computer so that the pump was activated only when winds blow
6 from the sea. Daily aerosol samples were collected between 2003 and 2011 (Fig. DR1) using 20
7 x 25 cm Whatman 41 ashless filters (W-41, Sigma-Aldrich part # Z241377-1PAK) with
8 collection efficiency for dust that is greater than 95% (Kitto and Anderson, 1988; Arimoto et al.,
9 1990). The filters were extracted with MQ water (Millipore, resistivity > 18 MΩ) under class-
10 100 hood and ashed in a muffle furnace at 500 °C for eight hours. A full-size blank filter that was
11 ashed in a quartz crucible at 900 °C did not return a measurable mass, the ash residue mass was
12 therefore assumed to be entirely from mineral dust.

13 **1.2 Sample digestion:** In order to ensure complete dissolution of refractory minerals for
14 accurate elemental and isotope analysis, we preferred high-temperature flux fusion of the aerosol
15 samples with high-purity lithium metaborate (LiBO₂) over conventional hot-plate or Parr bomb
16 acid digestion methods. While commercially available flux must be additionally purified to
17 ensure low background levels for processing extra-terrestrial material, the relatively higher
18 concentrations of Sr, Hf and the REE in terrestrial aerosols allow for the direct use of Puratronic
19 LiBO₂ (Alfa Aesar, part # 10739) without the need for further purification of the flux. A brief
20 description of alkali fusion is included in the following. Extensive details regarding the fusion
21 technique can be found in Pourmand and Dauphas (2010) and Pourmand et al. (2012).

22 Approximately 250 mg of LiBO₂ was transferred to an 8-mL high-purity graphite
23 crucible (Spex Certiprep part # 7152HP). The ashed aerosol sample (15-30 mg) was weighed
24 onto a depression at the center of the flux and approximately 150 mg of ultra-pure grade lithium
25 bromide (Spex Certiprep part # FFB-103-03) was added to the mix as non-wetting agent to
26 ensure complete recovery of the melt. The sample-flux mixture was capped with a second
27 crucible and fused in a furnace at 1070 °C for 12 minutes. The melt was directly transferred to 25
28 mL of 6 mol L⁻¹ HNO₃ in a PFA savillex vial and the shattered glass was dissolved within
29 minutes on a Vortex mixer. Procedural blanks were prepared similarly without the addition of
30 sample powder.

31 **1.3 Extraction chromatography:** Concentrated nitric (HNO₃) and hydrochloric (HCl) acids
32 were distilled once from ACS grade using Savillex DST-1000 sub-boiling stills. The distilled
33 acids were titrated against certified 0.1 and 1 mol L⁻¹ NaOH solutions to determine the
34 concentrations accurately. High-purity (Optima grade) Hydrofluoric acid (HF) was used directly
35 without distillation. 30-mL Savillex vials (part # 200-030-30) were cleaned first in a solution of
36 50% HNO₃ followed by boiling in a mixture of 1:3 HNO₃: HCl (Aqua regia) and dried in class-
37 100 laminar flow hoods. Extraction chromatography procedures were conducted inside a class-
38 100 Microzone trace-metal workstation at the Neptune Isotope Lab (NIL). In order to separate
39 Sr, Hf, Nd and the REE from matrix elements, we developed a novel, 3-stage extraction
40 chromatography scheme based on the studies of Horwitz et al. (1992) for Sr and Horwitz et al.
41 (2005), Pourmand et al. (2010) and Pourmand et al. (2012) for Hf, Nd and the REE.

42 The first and second steps of elemental separation involved two pre-packed, 1-mL
43 cartridges containing Sr (4,4'(5')-di-t-butylcyclohexano 18-crown-6 (crown ether) in 1-octanol,
44 part #SR1ML-R50-S) and TODGA (N,N,N',N'-tetra-n-octyldiglycolamide, part# DN1ML-

45 R200-S) extraction chromatography resins from Eichrom Inc. A third step was necessary to
46 separate Nd from other REE, particularly Sm. According to Fig. 1 of Horwitz et al. (1992), the
47 affinity (k') of the extraction resin is highest for Sr in HNO_3 concentrations that exceed 6 mol L^{-1} .
48 The resin shows no affinity for interfering cations such as Ca, Mg and other trace elements
49 (including the REE) in this acid concentration. In contrast, the resin affinity for Sr drops
50 significantly below 1 in 0.01 mol L^{-1} HNO_3 , allowing for quantitative separation of Sr from
51 matrix elements. In comparison, the TODGA resin shows exceptionally high affinity for Hf and
52 the REE in 6 mol L^{-1} HNO_3 (Fig. 1 in Pourmand and Dauphas 2010).

53 Following these observations and the elution curves developed for Sr, Hf and the REE in
54 the above-mentioned studies, the first purification stage was devised with Sr and TODGA
55 cartridges mounted in tandem on a 12-slot vacuum box (Eichrom part # AC-12-LINER)
56 equipped with a pneumatic pressure regulator. The cartridge assembly was conditioned with 10
57 mL of 0.01 mol L^{-1} HCl to remove resin background elements, followed by 5 mL of 6 mol L^{-1}
58 HNO_3 to convert the resin medium to the sample load solution. The dissolved samples were
59 subsequently loaded onto the Sr + TODGA array and the eluent, which contained the matrix
60 elements, was collected in a 50 mL polypropylene centrifuge tube. The cartridges were
61 conditioned with an additional 15 mL of 6 mol L^{-1} HNO_3 to elute residual matrix elements. In the
62 second step, the Sr and TODGA cartridges were detached and treated separately for the
63 remainder of the chromatography procedure. The flow rates for sample load and elemental
64 elution were kept below 1 mL min^{-1} to ensure quantitative elution and reproducibility.

65 Prior to Sr elution, an additional 20 mL of 6 mol L^{-1} HNO_3 was loaded to the Sr cartridge
66 to eliminate residual matrix elements. Quantitative elution of Sr was achieved in 10 mL of 0.01
67 mol L^{-1} HNO_3 and the eluent was directly analyzed on the mass spectrometer for Sr isotopes.

68 Prior to Hf elution, an additional 5 mL of 6 mol L⁻¹ HNO₃ was loaded to remove residual
69 matrix elements from the TODGA resin. Hafnium was subsequently eluted using 3 × 2 mL (6
70 mL total) of 1 mol L⁻¹ HNO₃ + 0.2 mol L⁻¹ HF that was kept at an ambient temperature of 90 °C.
71 Pourmand et al. (2010) showed near-quantitative elution of Hf can be achieved in 20 mL of this
72 solution at 70 °C on a 2-mL TODGA cartridge without any loss of the REE from the resin. Using
73 a 1-mL cartridge and increasing the acid temperature allowed for elution of > 70 % of Hf in 6
74 mL of 1 mol L⁻¹ HNO₃ + 0.2 mol L⁻¹ HF. The Hf content was sufficient for direct analysis of Hf
75 isotopes. The REE (La-Lu) were subsequently eluted quantitatively from the TODGA resin in 25
76 mL of 0.01 mol L⁻¹ HCl onto a 50 mL centrifuge tube, and the sample was analyzed directly for
77 REE abundances.

78 In order to minimize the effect of isobaric interferences and allow for high-precision Nd
79 isotope ratio analysis, it was necessary to separate Sm from Nd in the samples. We conducted
80 elution experiments to test the possibility of separating Nd from Sm using the TODGA resin.
81 Small but resolvable differential between the affinity of TODGA resin for light REE (LREE, La-
82 Gd, see Fig. 7 in Horwitz et al., 2005) in low concentrations of HNO₃ can be exploited to
83 separate Nd from Sm. The extraction procedure was calibrated by a multi-element standard
84 solution with elemental concentrations of 500 ng g⁻¹ using a mixture of La, Ce, Pr, Nd and Sm
85 from mono-elemental standard solutions (1000 ppm, Spex Certiprep) prepared in 3 mol L⁻¹ HCl.
86 The multi-element solution was loaded to a 1-mL TODGA and the LREE were eluted in 1 mL
87 increments in 0.0075 mol L⁻¹ HNO₃. The results (Fig DR2) show that after removing > 80% La-
88 Ce and > 40% of Pr in 4 mL of 0.0075 mol L⁻¹ HNO₃, more than 70% of Nd can be eluted in 5
89 mL of the same acid. The Sm content of the Nd fraction did not exceed 2 %. The residual
90 isobaric interference from ¹⁴⁴Sm on ¹⁴⁴Nd was accounted for by simultaneous measurement of

91 Sm and Nd isotopes (see section 4 below). The elution volume of Sm-free Nd is highly
92 dependent on the accurate calibration of the eluting acid solution. Two liters of 0.0075 mol L⁻¹
93 HNO₃ prepared from concentrated HNO₃ and titrated against certified NaOH solutions was
94 subsequently used for Nd purification of all samples.

95 For the final step of Nd purification, a new TODGA cartridge was conditioned with 10
96 mL of 0.01 HCl to remove background contribution from the resin, followed by 5 mL of 3 mol
97 L⁻¹ HCl to convert the resin to the load solution. A 10-mL aliquot of 0.01 mol L⁻¹ HCl from stage
98 1 that contained the REE was mixed with concentrated HCl to adjust the load acid concentration
99 to 3 mol L⁻¹ HCl. Lanthanum, Ce and Pr were eluted in 4 mL of 0.0075 mol L⁻¹ HNO₃ followed
100 by Nd in 5 mL of 0.0075 mol L⁻¹ HNO₃. The fraction containing Nd was directly analyzed on the
101 mass spectrometer without further processing. The extraction chromatography procedure is
102 summarized in table DR1 and Fig. DR3.

103 **1.4 Mass spectrometry:** The radiogenic isotopes of Sr (⁸⁷Sr/⁸⁶Sr), Hf (¹⁷⁶Hf/¹⁷⁷Hf), Nd
104 (¹⁴³Nd/¹⁴⁴Nd) and the REE (La-Lu) abundances were measured on a ThermoFisher Scientific
105 Neptune Plus multi-collection inductively coupled plasma mass spectrometer (MC-ICP-MS) at
106 the Neptune Isotope Lab (NIL), the University of Miami. The instrument at NIL is equipped with
107 9 Faraday collectors that can be associated to eight 10¹¹ Ω, and two 10¹⁰ Ω and 10¹² Ω amplifies
108 to extend the dynamical range of the measurements. Additional details regarding the Neptune
109 instrument at NIL can be found in Pourmand et al. (2014). The collector configuration for Sr,
110 Nd, Hf isotope measurements and the REE are shown in table DR3. Details of REE analysis are
111 extensively discussed elsewhere (Pourmand et al., 2012). The sample introduction system for Sr
112 isotope measurements involved a high-volume nebulizer at a nominal flow rate of 400 µL min⁻¹
113 paired with a quartz stable sample introduction (SSI) system. Neodymium and Hf isotopes and

114 the REE abundances were measured using an Apex-Q desolvation nebulizer paired with a 92 μL
115 min^{-1} nebulizer and high-purity nitrogen gas. High-performance Jet sampler and X-series
116 skimmer cones were used for all measurements.

117 The cup configuration for each systematic was loaded at the beginning of each analytical
118 session followed by an automatic gain calibration of the Faraday collectors through the Neptune
119 software. The signal sensitivity and stability were optimized using the Neptune's Tune solution,
120 which contains 200 ng g⁻¹ Sr, Nd and Hf. Peak optimization for other REE was achieved using a
121 certified multi-element solution from Spex Certiprep, which was also used for quantification of
122 elemental abundances by standard-sample bracketing technique (Pourmand et al., 2012).

123 Data acquisition for Sr, Nd and Hf isotopes involved five blocks of ten cycles each at
124 8.389 s integration time and 3 s magnet settling time. Sample uptake for Sr measurements was 70
125 seconds; higher uptake time of 110 seconds was needed for other systematics due to lower
126 nebulizer flow rate. Baseline calibration was performed prior to each measurement through the
127 Neptune software. The analytical precision reported on all isotope ratios from this study are
128 based on 95% confidence interval (2σ mean) of individual measurements.

129 Mass-dependent fractionation of heavy versus light isotopes of Sr, Nd and Hf that occurs
130 in the plasma was accounted for by internal normalization using the exponential law and the
131 following relationship (Russell et al., 1978):

$$132 R_{true} = R_{meas.} \left(\frac{M_2}{M_1} \right)^\beta \quad (1)$$

133 where R_{true} and $R_{meas.}$ are the accepted and measured isotopic ratios of masses M_2 and M_1 ,
134 respectively. The mass bias coefficient, β , is a free parameter determined experimentally and

135 applied to other measured isotope ratios for mass bias correction. Data reduction and adjustments
136 for isobaric interferences were performed directly through the Neptune Method Editor software.

137 During the Sr isotope measurements (table DR2), we also monitored the abundances of
138 ^{82}Kr , ^{83}Kr and ^{85}Rb isotopes. ^{82}Kr served as a good indicator of how well bromine from the non-
139 wetting agent was removed from the sample matrix during extraction chromatography; high
140 levels of ^{81}Br manifest as a tail on ^{82}Kr peak. The contributions of ^{84}Kr and ^{86}Kr on ^{84}Sr and ^{86}Sr
141 beams, respectively, are accounted for by measuring ^{83}Kr and allowing for abundance ratios of
142 $^{83}\text{Kr}/^{84}\text{Kr}=0.2017$ and $^{83}\text{Kr}/^{86}\text{Kr}=0.6647$. We performed on-peak zero (OPZ) subtraction of Kr
143 isotope abundances at the beginning of each measurement sequence, which rendered Kr
144 contribution to Sr isotopes negligible. All measured Sr isotope ratios were normalized to
145 $^{88}\text{Sr}/^{86}\text{Sr} = 8.375209$ to correct for instrumental mass bias using equation 1.

146 Every 1-2 sample measurements were bracketed with measurements of two SRM987
147 standard solutions at 600 ng g⁻¹. Strontium concentrations in aerosol samples were measured
148 against the concentration of Sr in SRM987, which was also calibrated against a certified mono-
149 elemental standard solution ($\pm 5\%$). The mean of $^{87}\text{Sr}/^{86}\text{Sr}$ ratio in SRM987 measured during the
150 course of this study was 0.710256 ± 12 (95% CI uncertainty on the last digits, n=24), which
151 deviated from the accepted value of 0.710248 (Weis et al., 2006) by 12 ppm. The measured
152 $^{87}\text{Sr}/^{86}\text{Sr}$ ratios were corrected for mass bias and isobaric interferences and the final ratio was
153 further adjusted relative to the accepted value of 0.710248 for SRM987 to allow comparison
154 with literature measurements of radiogenic Sr isotopes.

155 During the Nd isotope measurements (table DR2), ^{147}Sm and ^{179}Sm isotopes were also
156 monitored to determine effective elemental separation between Nd and Sm in the second

157 extraction chromatography stage (Fig. DR 3). The mean of Sm/Nd ratio from all samples
158 processed in this study was 0.03 ± 0.01 , too low to have any detectable effect on Nd isotope
159 ratios. Nevertheless, the residual isobaric influence of ^{144}Sm on ^{144}Nd was accounted for by
160 allowing $^{147}\text{Sm}/^{144}\text{Sm} = 4.8387$. All measured Nd isotope ratios were normalized to $^{146}\text{Nd}/^{147}\text{Nd}$
161 = 0.7219 to correct for instrumental mass bias using equation 1. Every 1-2 sample measurements
162 were bracketed with measurements of two JNdi-1 standard solutions at 25 ng g⁻¹ (courtesy of
163 Franco Marcantonio, Texas A&M University). The mean of $^{143}\text{Nd}/^{144}\text{Nd}$ ratio in JNdi-1 was
164 0.512090 ± 3 (n=29), which deviated from the accepted value of 0.512115 ± 5 by 49 ppm. The
165 sample $^{176}\text{Hf}/^{177}\text{Hf}$ ratios, corrected for mass bias and isobaric interferences, were adjusted to
166 0.512115 based on the mean of JNdi-1 bracketing standards.

167 During Hf isotope measurements (table DR2), ^{172}Yb and ^{175}Lu were also monitored to
168 determine elemental separation between Hf, Yb and Lu (Fig. DR3). The isobaric interferences
169 from ^{174}Yb and ^{176}Yb on ^{174}Hf and ^{176}Hf , respectively, were accounted for by allowing for the
170 abundance ratios of $^{172}\text{Yb}/^{174}\text{Yb} = 0.6858$ and $^{172}\text{Yb}/^{176}\text{Yb} = 1.7108$. Similarly, the contribution
171 of ^{176}Lu to ^{176}Hf beam was assessed by allowing for $^{175}\text{Lu}/^{176}\text{Lu} = 37.61$. Given the effective
172 separation of these elements from Hf (Pourmand and Dauphas 2010), interference contributions
173 from Yb and Lu on Hf isotopes were negligible. Measured Hf isotope ratios were normalized to
174 $^{179}\text{Hf}/^{177}\text{Hf} = 0.7325$ to correct for instrumental mass bias using equation 1. Every two sample
175 measurements were bracketed with measurements of two JMC475 standard solutions at 25 ng g⁻¹
176 (courtesy of Nicolas Dauphas, University of Chicago and Jonathan Patchett, University of
177 Arizona). The mean of $^{176}\text{Hf}/^{177}\text{Hf}$ ratio in JMC475 was 0.282146 ± 4 (n=18), which deviated
178 from the accepted value of 0.282160 by 48 ppm, but was in better agreement with the value of
179 0.282154 ± 6, n=24, reported by Bouvier et al. (2008). The sample $^{176}\text{Hf}/^{177}\text{Hf}$ ratios, corrected

180 for mass bias and isobaric interferences, were adjusted to 0.282160 based on the mean of
181 bracketing JMC475 standards.

182 The measured $^{143}\text{Nd}/^{144}\text{Nd}$ and $^{176}\text{Hf}/^{177}\text{Hf}$ ratios are reported in “ ϵ ” notation relative to
183 the Chondritic Uniform Reservoir (CHUR) values of 0.512638 ± 25 and 0.282785 ± 11 ,
184 respectively (Jacobsen and Wasserburg, 1980, Bouvier et al. 2008), and are expressed in parts
185 per ten thousand. The uncertainties on ϵNd and ϵHf values reported in this study do not
186 propagate the uncertainty on CHUR.

187 In order to examine the external reproducibility of our analytical procedure for Sr, Hf and
188 Nd isotopes, we processed duplicate aliquots of BCR-2 and BHVO-2 CRMs from the USGS.
189 Approximately 20 mg of the CRM was processed similarly to the samples and the results were
190 compared with the mean of literature compilations from tables DR3-5 (GEOREM:
191 <http://georem.mpch-mainz.gwdg.de/>). As shown in Fig. DR4, all isotope ratios measured in
192 these CRMs agree with the mean of literature values measured by MC-ICP-MS and thermal
193 ionization mass spectrometry (TIMS) within analytical and literature uncertainties. The
194 analytical precisions (relative standard deviation of the mean, RSD_m) on Eu/Eu^* ($\text{Eu}_N/\sqrt{(\text{Sm}_N \times$
195 $\text{Gd}_N)}$, normalized to mean of CI-Chondrites), Ce/Ce^* ($\text{Ce}_N/\sqrt{(\text{Pr}_N \times \text{La}_N)}$), La_N/Lu_N and the mean of
196 REE abundances were better than 0.24 %, 0.07 %, 0.64 %, and 0.86 %, respectively. These
197 uncertainties are based on five independent replicates of G-3 CRM. The results of REE
198 abundances from replicates of USGS CRMs BCR-2, BHVO-1, BIR-1, PCC-1, W-2, and G-2
199 agreed well with literature compilations (Pourmand et al., 2012).

200 Contribution from procedural blanks ($n = 3$) for Sr, Nd and Hf were 800, 21 and 18 and
201 picogram. These blank levels were negligible relative to the concentration of these elements in

202 the running solutions, and no corrections were applied on isotope ratios measured in the samples
203 and CRMs. Procedural blank adjustments affected the REE abundances by an average of 0.2 %
204 for La-Lu, with the highest average correction of 1.4% on Yb. The overall agreement between
205 isotope ratios and elemental abundances of CRMs and the literature gives us confidence in the
206 fidelity of our analytical technique.

207 The procedure presented here is highly advantageous as it utilizes flux fusion for fast and
208 effective sample dissolution. In contrast to the most common protocols in the literature, the
209 eluted fractions containing Sr, Nd, Hf and the REE can be directly analyzed for isotope ratios and
210 elemental abundances without the need for additional dry-down and acid conversion steps, which
211 are time-consuming and can potentially result in higher blank contributions.

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219 **Figure captions**

220 **Fig. DR1.** Daily dust concentrations ($\mu\text{g m}^{-3}$) measured at Barbados (13.1650, -59.4320) from
221 2003-2011. Stars denote the dust events sampled for this study. See Trapp et al. (2010) for
222 details on how dust concentrations were calculated.

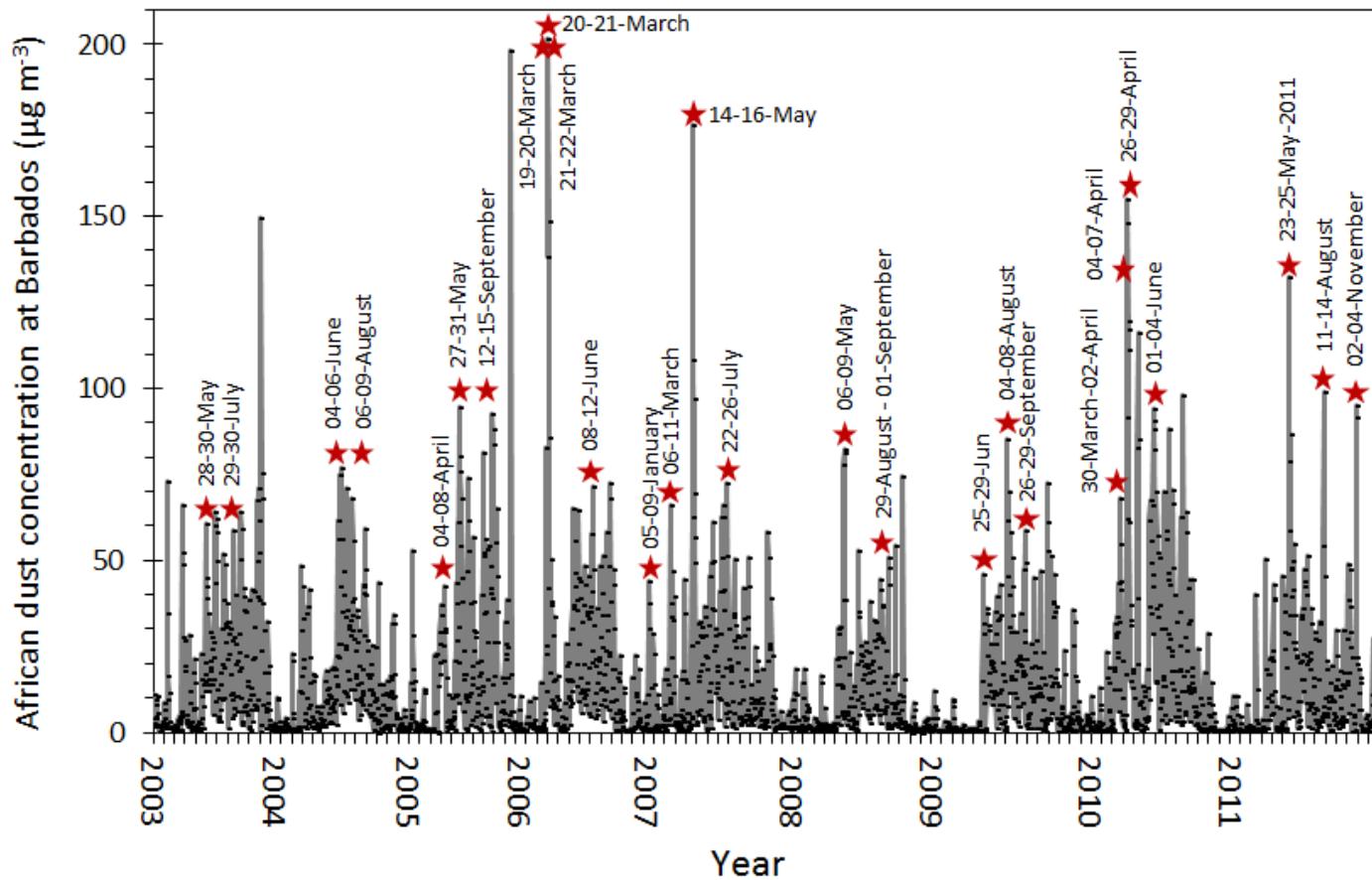
223 **Fig. DR2.** Elution curves for light REE. More than 80% of La and Ce and 40% of Pr are
224 removed in 4 mL of 0.0075 mol L⁻¹ HNO₃. At least 70 % of Sm-free Nd can be eluted in 5 mL of
225 0.0075 mol L⁻¹ HNO₃.

226 **Fig. DR3.** Summary of flux fusion and extraction chromatography for separating Sr, Nd, Hf and
227 the REE from matrix elements for high-precision isotope ratio measurements and elemental
228 abundances by MC-ICP-MS.

229 **Fig. DR4.** $^{87}\text{Sr}/^{86}\text{Sr}$, $^{143}\text{Nd}/^{144}\text{Nd}$ and $^{176}\text{Hf}/^{177}\text{Hf}$ isotope ratios measured in replicates of BCR-2
230 and BHVO-2 CRM powder from USGS in this study agree with literature compilations. The
231 uncertainties in this study and the literature are calculated at 95% CI (2SD mean). Citations for
232 the literature references are included in table DR3-5.

233 **Fig. DR5.** a) Rare earth element pattern for 26 dust samples from Barbados, show enrichment in
234 middle REE with a pronounced Eu anomaly. The mean of soil samples from the Bodélé
235 Depression (Abouchami et al., 2013) show a similar pattern. The mean of 10 measurements in
236 aerosols over Jordan associated with sources in Libya show distinct enrichment in HREE (Abed
237 et al., 2009). b) The Eu anomalies in aerosol samples from Barbados and off western coast of
238 Africa are more pronounced compared with bulk soil samples from the Bodélé Depression. All
239 values are normalized to PAAS from Pourmand et al. (2012).

240 **Figures**

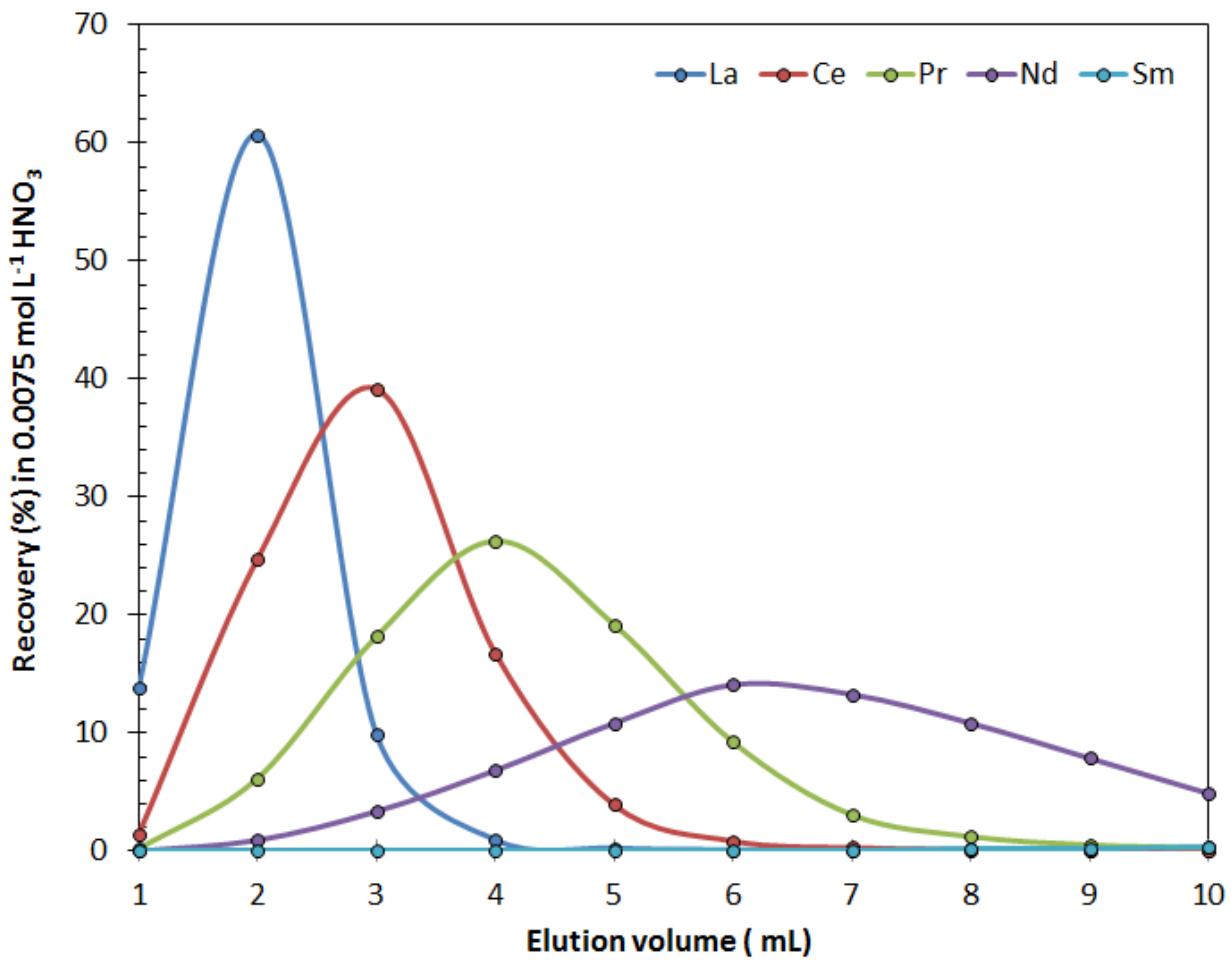


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Fig. DR1

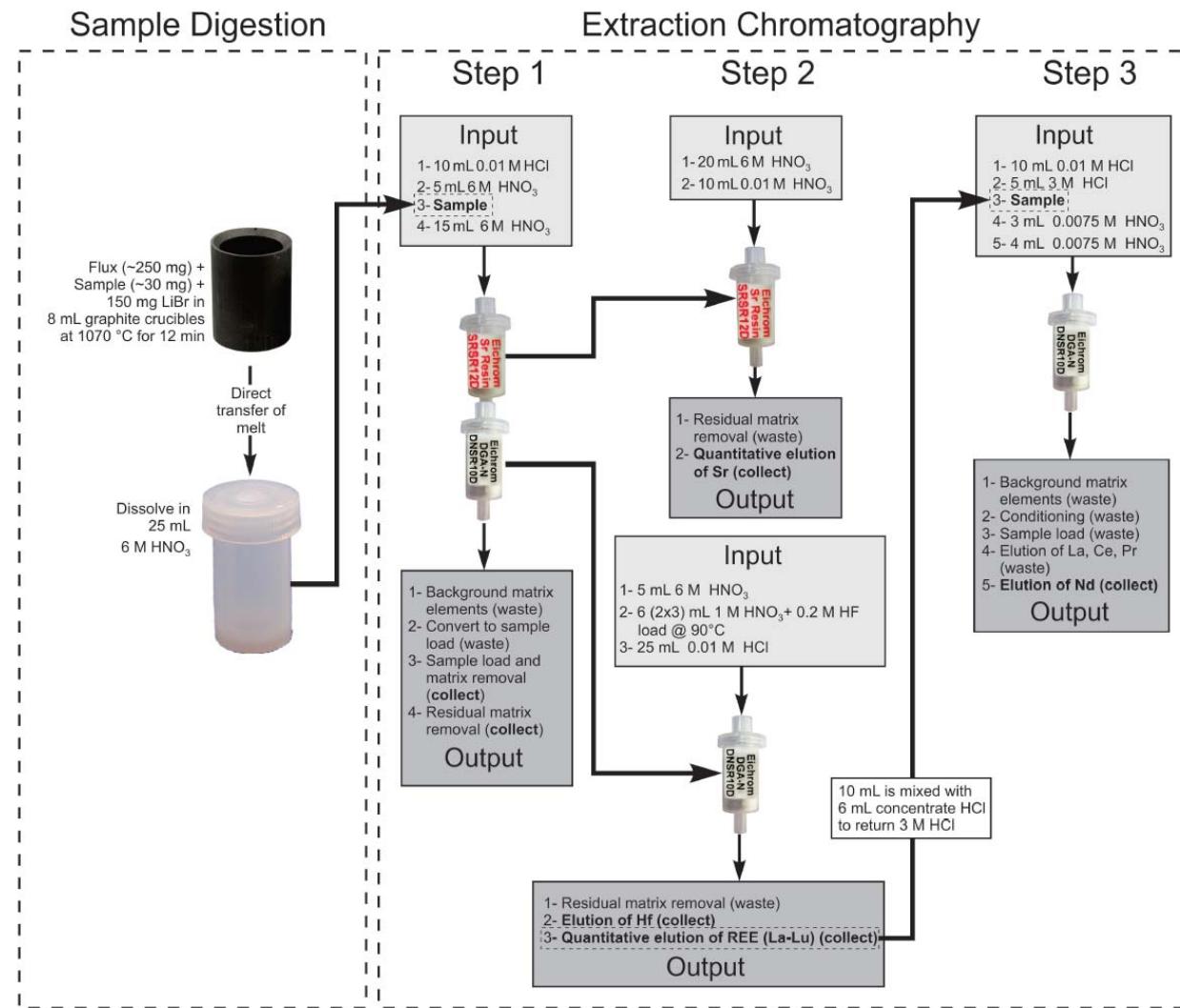


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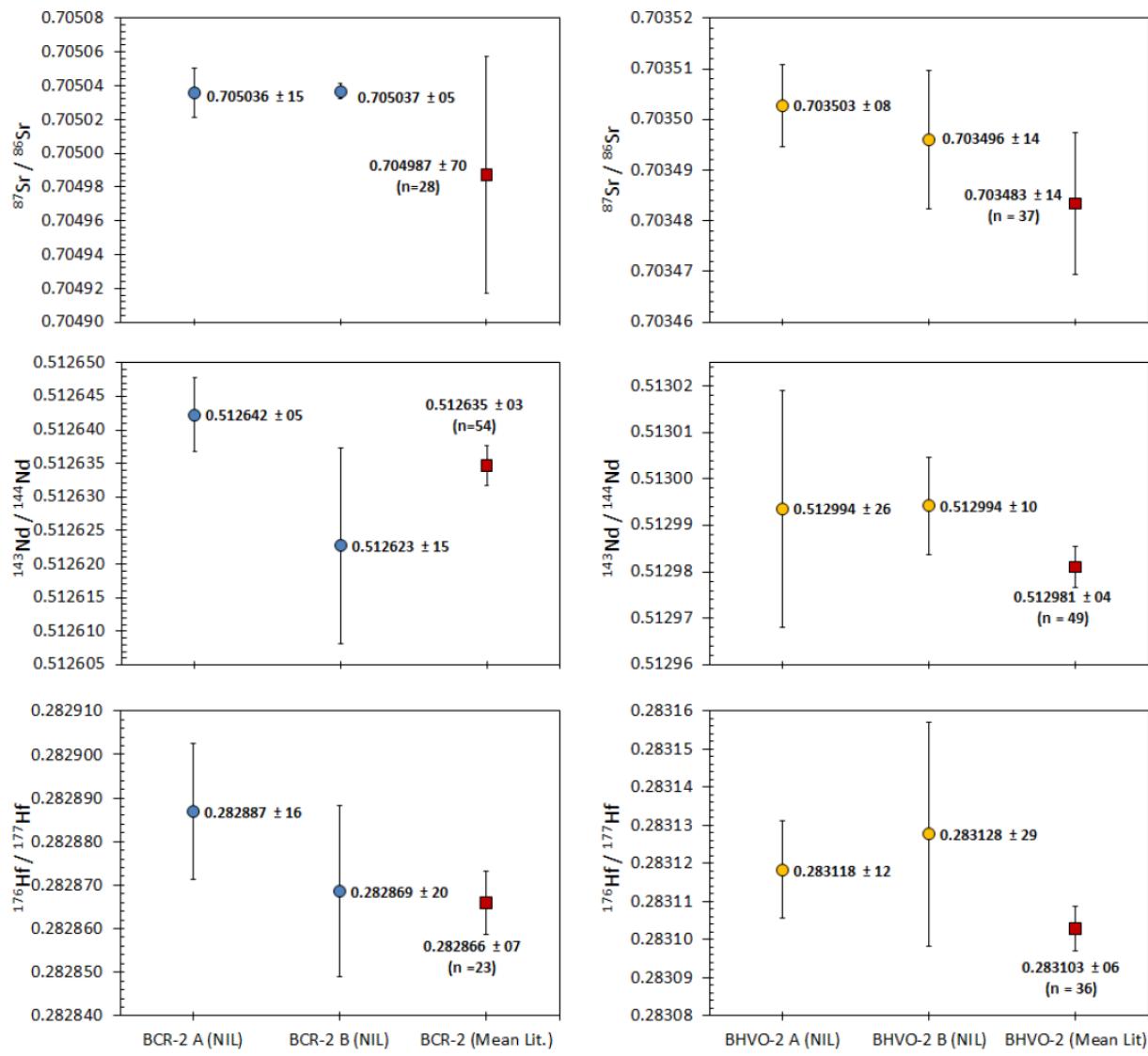
Fig. DR2



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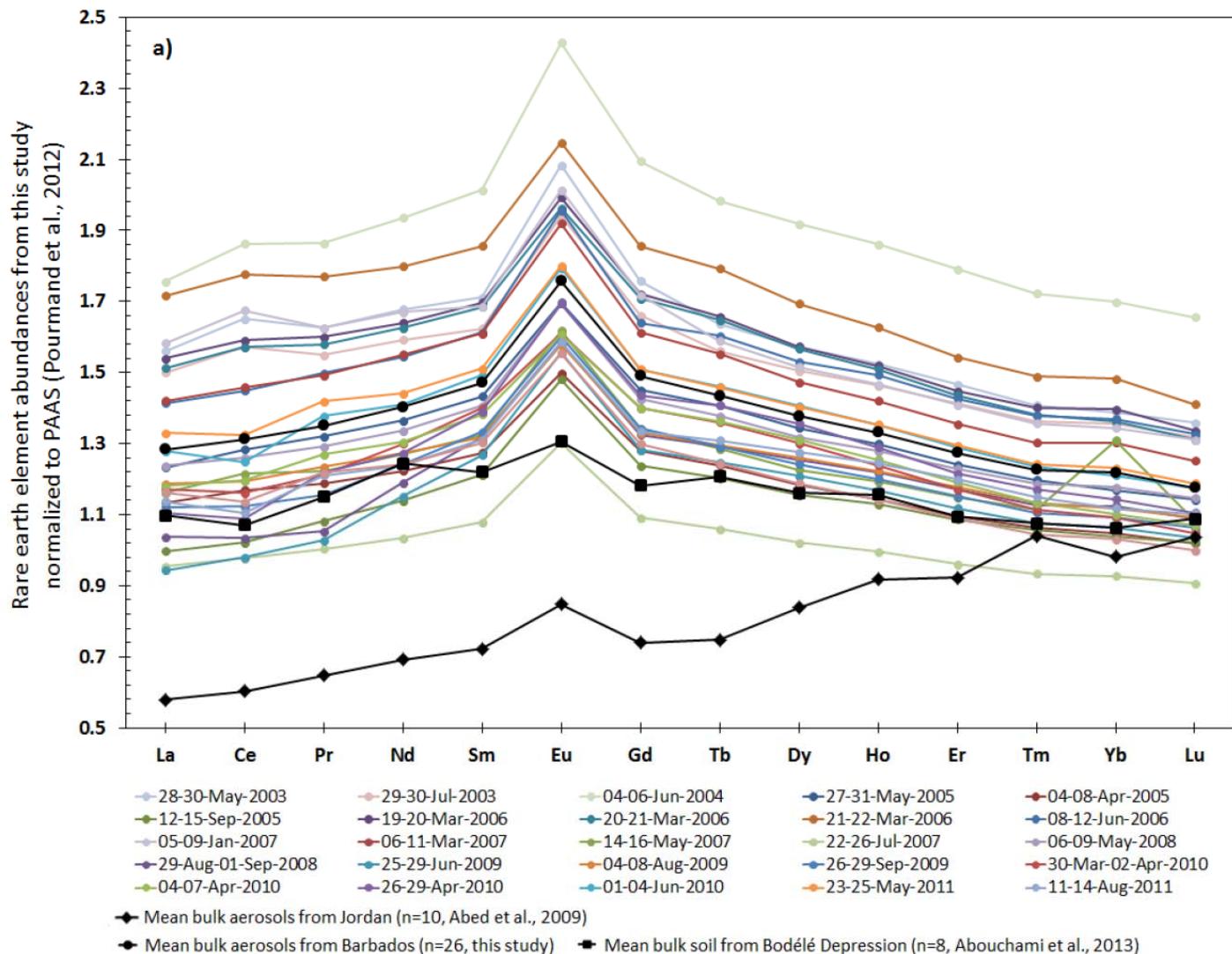
Fig. DR3



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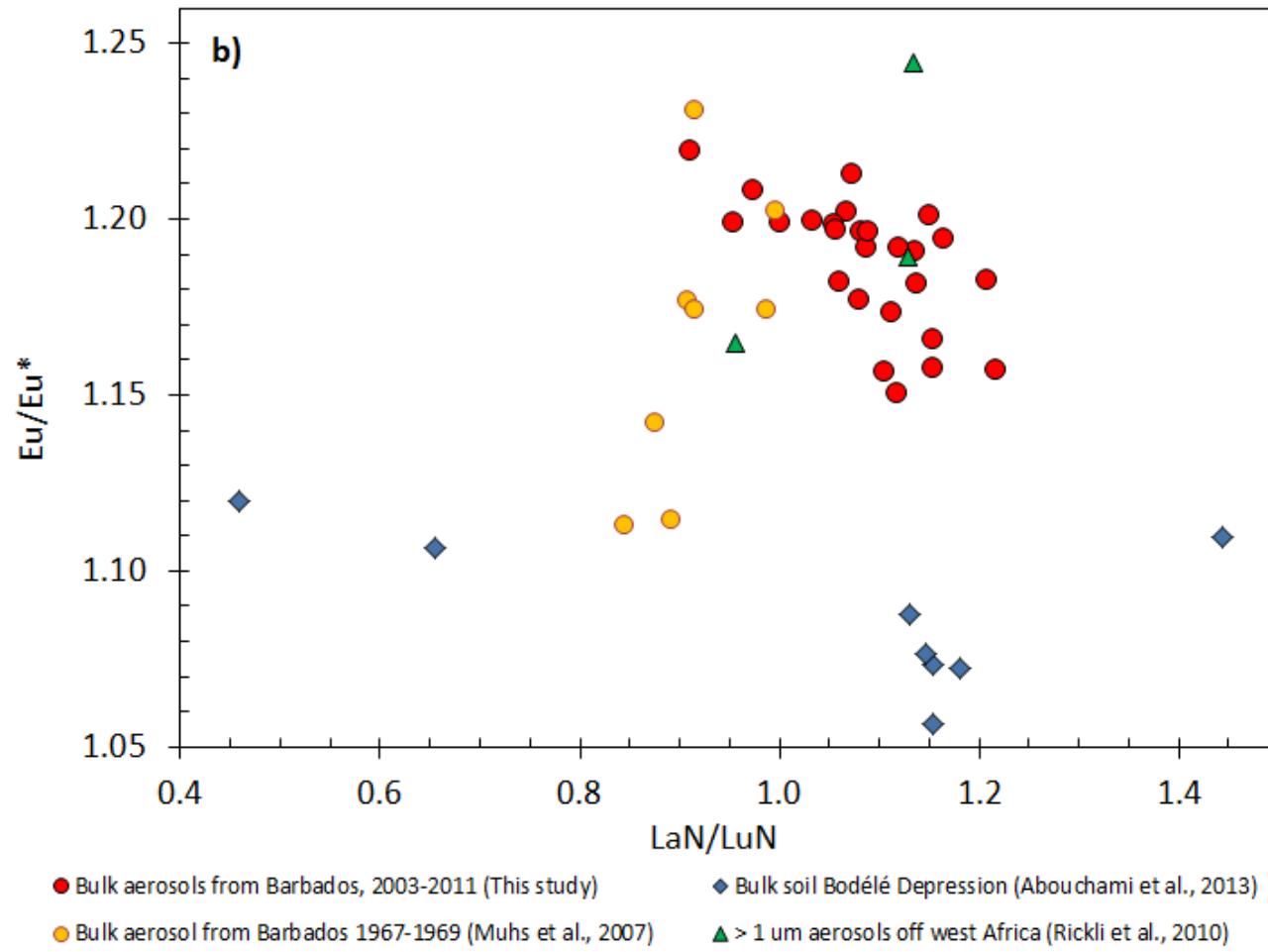
Fig. DR4



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Fig. DR5a



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Table DR1. Extraction chromatography procedure for separation of Sr, Nd, Hf and the REE from matrix.

Step	Resin (1 mL cartridge)	Input solution			Output solution	Elution
		Volume (mL)	Concentration (mol L ⁻¹)	Acid type		
1 Separation of Sr, Hf and REE from matrix elements						
1.1	SR + TODGA	10	0.01	HCl	Background matrix elements	waste
1.2	SR + TODGA	5	6	HNO ₃	Convert to sample load	waste
1.3	SR + TODGA	20	6	HNO ₃	Sample load and matrix removal	collect
1.4	SR + TODGA	15	6	HNO ₃	Residual matrix removal	collect
1.5	Separation of SR and TODGA cartridges					
2 Separation of Sr and Hf from REE (from step 1.5)						
2.1	SR	20	6	HNO ₃	Residual matrix removal	collect
2.2	SR	10	0.01	HNO ₃	Quantitative elution of Sr	collect
2.3	TODGA	5	6	HNO ₃	Residual matrix removal	waste
2.4	TODGA	6 (2x3)	1 + 0.2	HNO ₃ + HF*	Elution of Hf	collect
2.5	TODGA	25	0.01	HCl	Quantitative elution of REE (La-Lu)**	collect
3 Separation of Nd from Sm						
3.1	TODGA	10	0.01	HCl	Background matrix elements	waste
3.2	TODGA	16	3	HCl	Sample load from step 2.4	waste
3.3	TODGA	3	0.0075	HNO ₃	Elution of La, Ce, Pr	Waste
3.4	TODGA	4	0.0075	HNO ₃	Elution of Nd	collect

* Acid mixture is loaded at 90 °C.

** 10 mL is mixed with concentrated HCl to return 3 M HCl for step 3.2.

Table DR2. Collector configuration for Sr, Nd, Hf and REE analysis.

Element	Faraday detectors and corresponding isotopes									Integration time (s)	Block	Cycle
	L4	L3	L2	L1	C	H1	H2	H3	H4			
Strontium	⁸² Kr	⁸³ Kr	⁸⁴ Sr	⁸⁵ Rb	⁸⁶ Sr	⁸⁷ Sr	⁸⁸ Sr	-	-	8.389	5	10
Neodymium	¹⁴² Nd	¹⁴³ Nd	¹⁴⁴ Nd	¹⁴⁵ Nd	¹⁴⁶ Nd	¹⁴⁷ Sm	¹⁴⁸ Nd	¹⁴⁹ Sm	¹⁵⁰ Nd	8.389	5	10
Hafnium	¹⁷² Yb	¹⁷⁴ Hf	¹⁷⁵ Lu	¹⁷⁶ Hf	¹⁷⁷ Hf	¹⁷⁸ Hf	¹⁷⁹ Hf	¹⁸⁰ Hf	-	8.389	5	10
REE main	¹⁴⁹ Sm	¹⁵¹ Eu	¹⁵⁷ Gd	-	¹⁵⁹ Tb	¹⁶³ Dy	-	¹⁶⁵ Ho	¹⁶⁷ Er	4.2	1	3
REE Sub-config. 1	-	-	¹³⁹ La	¹⁴⁰ Ce	¹⁴¹ Pr	-	¹⁴⁶ Nd	-	¹⁴⁹ Sm	4.2	1	3
REE Sub-config. 2	-	-	¹⁶⁷ Er	-	¹⁶⁹ Tm	¹⁷³ Yb	-	¹⁷⁵ Lu	-	4.2	1	3

Table DR3. Radiogenic Sr-Nd-Hf isotope data and model ages.

Sample ID	Sr									Model				
	$^{87}\text{Sr}/^{86}\text{Sr}$	\pm	concentration ($\mu\text{g g}^{-1}$)	$^{143}\text{Nd}/^{144}\text{Nd}$	\pm	εNd	\pm	Sm/Nd	$^{147}\text{Sm}/^{144}\text{Nd}$	Sm-Nd Age (Ga)	$^{176}\text{Hf}/^{177}\text{Hf}$	\pm	εHf	\pm
28-30/05/03	0.716464	22	311.7	0.5119138	42	-14.13	0.08	0.1883	0.1138	1.90	-	-	-	-
29-30/06/03	0.716183	21	206.1	0.5119608	45	-13.21	0.09	0.1880	0.1137	1.82	-	-	-	-
04-06/07/04	0.717016	23	294.1	0.5119217	60	-13.97	0.12	0.1919	0.1160	1.93	-	-	-	-
06-09/08/04	0.716796	32	214.6	0.5119766	61	-12.90	0.12	0.1864	0.1127	1.78	-	-	-	-
04-08/04/05	0.716142	11	143.2	0.5120400	93	-11.66	0.18	0.1920	0.1235	1.74	0.2825024	37	-9.99	0.13
27-31/05/05	0.716277	11	150.4	0.5120382	62	-11.70	0.12	0.1936	0.1227	1.77	0.2825325	49	-8.93	0.17
12-15/09/05	0.716698	07	155.8	0.5119978	35	-12.49	0.07	0.1964	0.1155	1.86	0.2825363	118	-8.80	0.42
19-20/03/06	0.715544	14	201.5	0.5120161	68	-12.13	0.13	0.1909	0.1197	1.77	0.2825351	60	-8.84	0.21
20-21/03/06	0.715605	07	353.7	0.5120321	78	-11.82	0.15	0.1911	0.1200	1.75	0.2825626	123	-7.86	0.44
21-22/03/06	0.715534	08	365.2	0.5120397	162	-11.67	0.32	0.1902	0.1183	1.73	0.2825874	148	-6.99	0.52
08-12/06/06	0.717141	07	234.7	0.5120057	45	-12.34	0.09	0.1926	0.1219	1.80	0.2824765	181	-10.91	0.64
05-09/01/07	0.715634	10	333.1	0.5121150	97	-10.20	0.19	0.1916	0.1127	1.57	-	-	-	-
06-11/03/07	0.715891	10	159.8	0.5119972	72	-12.50	0.14	0.1927	0.1181	1.81	0.2825116	74	-9.67	0.26
14-16/05/07	0.715754	07	223.2	0.5119763	105	-12.91	0.21	0.1924	0.1169	1.85	0.2824959	87	-10.22	0.31
22-26/07/07	0.716587	03	118.4	0.5119777	59	-12.88	0.12	0.1941	0.1181	1.85	0.2824902	65	-10.42	0.23
06-09/05/08	0.716025	05	195.9	0.5119919	78	-12.60	0.15	0.1863	0.1171	1.84	0.2825433	126	-8.55	0.45
29/08-01/09/08	0.716316	10	221.2	0.5119777	64	-12.88	0.12	0.2043	0.1161	1.99	0.2825061	199	-9.86	0.70
25-29/06/09	0.715708	13	273.9	0.5119444	85	-13.53	0.17	0.2030	0.1171	2.03	0.2824695	98	-11.16	0.35
04-08/08/09	0.716724	10	207.9	0.5119780	60	-12.88	0.12	0.1910	0.1187	1.83	0.2824808	109	-10.76	0.39
26-29/09/09	0.710248	16	185.1	0.5120511	102	-11.45	0.20	0.1980	0.1154	1.79	0.2825416	27	-8.61	0.09
30/03-02/04/10	0.715774	12	212.9	0.5121274	59	-9.96	0.11	0.1985	0.1155	1.68	0.2826072	83	-6.29	0.29
04-07/04/10	0.715839	10	149.4	0.5121264	32	-9.98	0.06	0.1956	0.1150	1.65	0.2825751	103	-7.42	0.36
26-29/04/10	0.715822	06	179.1	0.5120247	27	-11.96	0.05	0.2016	0.1164	1.88	0.2825048	71	-9.91	0.25
01-04/06/10	0.715437	12	186.5	0.5120436	52	-11.59	0.10	0.1953	0.1159	1.77	0.2825049	132	-9.90	0.47
23-25/05/11	0.716029	14	191.0	0.5120351	37	-11.76	0.07	0.1934	0.1165	1.77	0.2825153	65	-9.54	0.23
11-14/08/11	0.715641	21	188.0	0.5119950	63	-12.54	0.12	0.1954	0.1163	1.85	0.2824983	105	-10.14	0.37
02-04/11/11	0.713891	09	148.0	0.5120340	71	-11.78	0.14	0.1937	0.1174	1.77	0.2825509	91	-8.28	0.32

Uncertainties (\pm) are 95% confidence interval (2SDm) and refer to the last two significant digits on isotope ratios. Gray area denotes measurements during a single dust event.

Table DR4a. Lanthanide concentrations in dust events over Barbados ($\mu\text{g g}^{-1}$).

Sample ID	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
28-30/05/03	69.54	145.7	16.49	62.60	11.79	2.531	10.620	1.458	8.374	1.605	4.509	0.6351	4.182	0.5956
29-30/06/03	66.81	138.8	15.73	59.44	11.18	2.357	10.032	1.390	8.012	1.541	4.342	0.6148	4.081	0.5783
04-06/07/04	78.27	164.4	18.92	72.24	13.86	2.950	12.659	1.768	10.218	1.959	5.505	0.7768	5.114	0.7265
04-08/04/05	50.54	103.2	12.06	45.67	8.77	1.821	7.738	1.105	6.303	1.204	3.366	0.4797	3.153	0.4473
27-31/05/05	54.93	113.2	13.41	50.95	9.87	2.062	8.766	1.255	7.155	1.369	3.816	0.5399	3.523	0.5011
12-15/09/05	44.41	90.2	10.98	42.52	8.35	1.798	7.475	1.072	6.150	1.190	3.342	0.4764	3.123	0.4489
19-20/03/06	68.63	140.3	16.24	61.21	11.69	2.421	10.398	1.477	8.379	1.600	4.453	0.6321	4.205	0.5858
20-21/03/06	67.40	138.7	16.03	60.66	11.59	2.384	10.318	1.468	8.343	1.589	4.417	0.6224	4.099	0.5750
21-22/03/06	76.47	156.7	17.96	67.15	12.77	2.609	11.214	1.598	9.016	1.714	4.745	0.6711	4.463	0.6186
08-12/06/06	63.02	127.8	15.21	57.66	11.11	2.376	9.911	1.429	8.146	1.573	4.385	0.6217	4.125	0.5816
05-09/01/07	70.52	147.8	16.50	62.30	11.61	2.446	10.383	1.416	8.068	1.545	4.332	0.6117	4.048	0.5745
06-11/03/07	63.29	128.7	15.14	57.85	11.09	2.332	9.748	1.384	7.840	1.496	4.167	0.5877	3.925	0.5488
14-16/05/07	51.77	107.2	12.41	47.36	9.13	1.966	8.113	1.145	6.530	1.256	3.534	0.5023	3.945	0.4752
22-26/07/07	42.56	86.2	10.19	38.60	7.43	1.580	6.594	0.945	5.438	1.049	2.956	0.4212	2.791	0.3977
06-09/05/08	55.18	111.1	13.12	49.88	9.68	2.059	8.614	1.229	7.009	1.346	3.779	0.5349	3.543	0.5027
29/08-01/09/08	46.18	91.2	10.69	44.42	9.07	1.925	8.006	1.151	6.684	1.282	3.607	0.5085	3.389	0.4771
25-29/06/09	42.04	86.4	10.44	42.98	8.73	1.889	7.751	1.112	6.436	1.230	3.440	0.4856	3.204	0.4544
04-08/08/09	52.88	105.4	12.52	47.51	9.07	1.917	8.039	1.154	6.709	1.288	3.623	0.5116	3.368	0.4788
26-29/09/09	49.99	99.0	11.73	46.35	9.18	1.945	8.111	1.151	6.615	1.265	3.543	0.4985	3.289	0.4657
30/03-02/04/10	52.21	102.5	12.33	48.52	9.63	1.956	8.456	1.213	6.924	1.304	3.601	0.5023	3.290	0.4601
04-07/04/10	52.59	105.6	12.88	48.66	9.52	1.955	8.457	1.216	6.975	1.321	3.661	0.5105	3.317	0.4685
26-29/04/10	49.26	96.1	12.37	47.47	9.57	2.058	8.678	1.255	7.221	1.358	3.735	0.5283	3.445	0.4847
01-04/06/10	56.98	110.2	13.98	52.62	10.27	2.180	9.109	1.302	7.484	1.424	3.962	0.5567	3.644	0.5153
23-25/05/11	59.24	116.9	14.40	53.79	10.40	2.187	9.122	1.300	7.472	1.425	3.980	0.5601	3.708	0.5214
11-14/08/11	50.71	97.5	12.28	46.18	9.02	1.927	8.068	1.167	6.794	1.312	3.688	0.5187	3.366	0.4833
02-04/11/11	51.83	100.2	12.36	46.28	8.97	1.888	7.856	1.109	6.328	1.203	3.349	0.4709	3.105	0.4383

Gray area denotes measurements during a single dust event.

Table DR4b. Lanthanide concentration normalized to mean of Post Archaean Australian Shale (PAAS, Pourmand et al., 2012).

Sample ID	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Ce/Ce*	Eu/Eu*	La _N /Lu _N
28-30/05/03	1.561	1.651	1.625	1.677	1.712	2.083	1.757	1.636	1.573	1.524	1.466	1.408	1.389	1.358	1.037	1.201	1.149
29-30/06/03	1.499	1.573	1.549	1.593	1.623	1.940	1.660	1.560	1.505	1.463	1.412	1.363	1.355	1.319	1.032	1.182	1.137
04-06/07/04	1.757	1.863	1.864	1.936	2.014	2.428	2.095	1.984	1.919	1.861	1.790	1.722	1.698	1.656	1.030	1.182	1.060
04-08/04/05	1.134	1.169	1.189	1.224	1.274	1.499	1.280	1.239	1.184	1.144	1.094	1.064	1.047	1.020	1.007	1.173	1.112
27-31/05/05	1.233	1.283	1.321	1.365	1.433	1.697	1.451	1.408	1.344	1.300	1.241	1.197	1.170	1.143	1.006	1.177	1.079
12-15/09/05	0.997	1.022	1.081	1.139	1.213	1.480	1.237	1.203	1.155	1.130	1.087	1.056	1.037	1.023	0.984	1.208	0.974
19-20/03/06	1.540	1.590	1.600	1.640	1.698	1.993	1.721	1.657	1.574	1.519	1.448	1.402	1.396	1.336	1.013	1.166	1.153
20-21/03/06	1.512	1.572	1.579	1.626	1.684	1.963	1.707	1.647	1.567	1.509	1.436	1.380	1.361	1.311	1.017	1.157	1.154
21-22/03/06	1.716	1.776	1.770	1.799	1.856	2.147	1.856	1.793	1.693	1.627	1.543	1.488	1.482	1.410	1.019	1.157	1.217
08-12/06/06	1.414	1.448	1.498	1.545	1.613	1.956	1.640	1.603	1.530	1.494	1.426	1.379	1.369	1.326	0.995	1.202	1.067
05-09/01/07	1.583	1.675	1.626	1.669	1.686	2.013	1.718	1.589	1.515	1.467	1.409	1.356	1.344	1.310	1.044	1.183	1.208
06-11/03/07	1.420	1.458	1.492	1.550	1.610	1.919	1.613	1.553	1.472	1.421	1.355	1.303	1.303	1.251	1.002	1.191	1.135
14-16/05/07	1.162	1.215	1.223	1.269	1.326	1.618	1.343	1.285	1.226	1.193	1.149	1.114	1.310	1.083	1.019	1.213	1.072
22-26/07/07	0.955	0.977	1.004	1.034	1.079	1.300	1.091	1.060	1.021	0.996	0.961	0.934	0.927	0.907	0.997	1.198	1.053
06-09/05/08	1.238	1.259	1.292	1.337	1.407	1.695	1.425	1.378	1.316	1.278	1.229	1.186	1.176	1.146	0.996	1.197	1.080
29/08-01/09/08	1.036	1.033	1.053	1.190	1.318	1.584	1.325	1.291	1.255	1.218	1.173	1.128	1.125	1.088	0.989	1.199	0.953
25-29/06/09	0.943	0.979	1.028	1.152	1.268	1.555	1.283	1.248	1.209	1.168	1.119	1.077	1.064	1.036	0.994	1.220	0.911
04-08/08/09	1.187	1.194	1.234	1.273	1.318	1.578	1.330	1.294	1.260	1.223	1.178	1.134	1.118	1.092	0.987	1.192	1.087
26-29/09/09	1.122	1.122	1.155	1.242	1.333	1.601	1.342	1.291	1.242	1.201	1.152	1.105	1.092	1.062	0.986	1.197	1.057
30/03-02/04/10	1.172	1.162	1.214	1.300	1.399	1.610	1.399	1.360	1.300	1.239	1.171	1.114	1.092	1.049	0.974	1.150	1.117
04-07/04/10	1.180	1.197	1.269	1.304	1.383	1.609	1.399	1.364	1.310	1.255	1.191	1.132	1.101	1.068	0.978	1.156	1.105
26-29/04/10	1.105	1.089	1.219	1.272	1.390	1.694	1.436	1.408	1.356	1.290	1.215	1.171	1.144	1.105	0.938	1.199	1.000
01-04/06/10	1.279	1.249	1.378	1.410	1.492	1.795	1.507	1.460	1.405	1.352	1.288	1.234	1.210	1.175	0.941	1.197	1.088
23-25/05/11	1.329	1.325	1.419	1.441	1.511	1.800	1.509	1.458	1.403	1.354	1.294	1.242	1.231	1.189	0.965	1.192	1.118
11-14/08/11	1.138	1.105	1.210	1.237	1.311	1.586	1.335	1.309	1.276	1.246	1.199	1.150	1.118	1.102	0.942	1.199	1.033
02-04/11/11	1.163	1.136	1.218	1.240	1.302	1.554	1.300	1.244	1.188	1.142	1.089	1.044	1.031	0.999	0.954	1.194	1.164

Gray area denotes measurements during a single dust event.

Table DR5a. $^{87}\text{Sr}/^{86}\text{Sr}$ in USGS BCR-2

87Sr/86Sr	Uncertainty	Uncertainty Type	Method	Institution	Last Name	First Name	Year	GeoRem Reference
0.704958	0.000034	2SD	TIMS	Max-Planck-Institut fuer Chemie	Raczek	I.	2003	12GeoReM 12"
0.705003	0.000091	SD	MC-ICPMS	Danish Lithosphere Centre	Waught	T.	2002	2196GeoReM 2196"
0.705027	0.000011	SD	MC-ICPMS	Danish Lithosphere Centre	Waught	T.	2002	2196GeoReM 2196"
0.705019	0.000016	2SD	TIMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.705013	0.00001	2SD	TIMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.705015	0.000013	2SE	MC-ICPMS	Ghent University	Balcaen	L.	2005	252GeoReM 252"
0.705023	0.000001	2SIGMA	TIMS	Chinese Academy of Sciences	Yang	Yue-Heng	2010	5487GeoReM 5487"
0.70517	0.000012	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2012	6081GeoReM 6081"
0.705175	0.000014	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2012	6081GeoReM 6081"
0.705019	0.000017	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2012	6081GeoReM 6081"
0.70501	0.000016	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2012	6081GeoReM 6081"
0.704998	0.000012	2SIGMA	TIMS	Chinese Academy of Sciences	Yang	Yue-Heng	2012	6081GeoReM 6081"
0.704989	0.000008	2SD	TIMS	University of Bristol	Prytulak	J.	2009	5120GeoReM 5120"
0.704986	0.000013	2SIGMA	TIMS	Chinese Academy of Sciences	Chu	Zhu-yin	2009	4997GeoReM 4997"
0.705018	0.000027	2SE	TIMS	Centre de Recherches Petrographiques et Geochimiques	Aciego	S.M.	2009	4791GeoReM 4791"
0.7040973	0.000013	2SIGMA	TIMS	Chinese Academy of Sciences	Jiang	Neng	2009	4543GeoReM 4543"
0.70499	0.000011	2SIGMA	TIMS	Chinese Academy of Geological Sciences	Zhang	Shuan-Hong	2007	3206GeoReM 3206"
0.705023	0.00002	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Tollstrup	D.	2010	5550GeoReM 5550"
0.705018	0.000011	2SIGMA	TIMS	Chinese Academy of Sciences	Zhang	Xiao-Hui	2011	6317GeoReM 6317"
0.705008	0.000007	2SIGMA	TIMS	University of British Columbia	Barker	A.K.	2008	4110GeoReM 4110"
0.705006	0.00001	2SIGMA	TIMS	University of British Columbia	Barker	A.K.	2008	4110GeoReM 4110"
0.705002	0.000009	2SIGMA	TIMS	The University of British Columbia	Greene	A.R.	2008	4122GeoReM 4122"
0.705002	0.000009	2SIGMA	TIMS	The University of British Columbia	Greene	A.R.	2009	4485GeoReM 4485"
0.705005	0.00004	2SIGMA	MC-ICPMS	University of Illinois at Urbana Champaign	Huang	F.	2011	5922GeoReM 5922"
0.704971	0.000014	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Fan	Yu-xin	2010	5574GeoReM 5574"
0.705035	0.000012	2SIGMA	TIMS	Chinese Academy of Sciences	Lan	Ting-Guang	2011	5926GeoReM 5926"
0.705035	0.000012	2SIGMA	TIMS	Chinese Academy of Sciences	Lan	Ting-Guang	2011	6210GeoReM 6210"
0.705027	0.000009	2SD	TIMS	Chinese Academy of Sciences	Peng	Peng	2011	6347GeoReM 6347"

Table DR5b. $^{143}\text{Nd}/^{144}\text{Nd}$ in USGS BCR-2

$^{143}\text{Nd}/^{144}\text{Nd}$	Uncertainty	Uncertainty Type	Method	Institution	Last Name	First Name	Year	GeoRem Reference
0.512633	0.000038	2SD	TIMS	Max-Planck-Institut fuer Chemie	Raczek	I.	2003	12GeoReM 12"
0.512635	0.000004	2SIGMA	TIMS	China University of Geosciences	Gao	S.	2004	841GeoReM 841"
0.512634	0.000012	2SD	TIMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.512637	0.000012	2SD	TIMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.512637	0.000017	2SD	MC-ICPMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.512638	0.000015	2SD	MC-ICPMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.512638	0.000005	2SIGMA	TIMS	China University of Geosciences	Zhang	Hong-Fei	2002	291GeoReM 291"
0.512644	0.000006	2SIGMA	MC-ICPMS	China University of Geosciences	Zhang	Hong-Fei	2007	3058GeoReM 3058"
0.512637	0.000003	2SIGMA	MC-ICPMS	Northwest University	Xu	Wen-Liang	2008	3990GeoReM 3990"
0.512637	0.000003	2SIGMA	MC-ICPMS	Northwest University	Xu	Wen-Liang	2010	5214GeoReM 5214"
0.51264	0.000008	2SIGMA	TIMS	Chinese Academy of Sciences	Yang	Yue-Heng	2010	5487GeoReM 5487"
0.512637	0.000007	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2011	5762GeoReM 5762"
0.512645	0.000007	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2011	5762GeoReM 5762"
0.512656	0.000008	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2011	5762GeoReM 5762"
0.512631	0.000011	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2011	5762GeoReM 5762"
0.512641	0.000005	2SD	TIMS	University of Bristol	Prytlak	J.	2009	5120GeoReM 5120"
0.512644	0.000015	2SIGMA	MC-ICPMS	China University of Geosciences	She	Zhenbing	2006	1603GeoReM 1603"
0.512613	0.000006		TIMS	University of Texas at Dallas	Hargrove	U.S.	2006	2495GeoReM 2495"
0.512639	0.000018	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Scher	H.D.	2010	5229GeoReM 5229"
0.512614	0.000009	2SD	TIMS	Chinese Academy of Sciences	Li	Chao-Feng	2007	3164GeoReM 3164"
0.512611	0.00001	2SD	TIMS	Chinese Academy of Sciences	Li	Chao-Feng	2007	3164GeoReM 3164"
0.512622	0.00001	2SD	TIMS	Chinese Academy of Sciences	Li	Chao-Feng	2007	3164GeoReM 3164"
0.512632	0.000008	2SD	TIMS	Chinese Academy of Sciences	Li	Chao-Feng	2007	3164GeoReM 3164"
0.51263	0.00001	2SD	TIMS	Chinese Academy of Sciences	Li	Chao-Feng	2011	5848GeoReM 5848"
0.512641	0.000018	2SD	TIMS	Chinese Academy of Sciences	Chu	Zhu-yin	2009	4680GeoReM 4680"
0.512623	0.000013	2SIGMA	TIMS	Chinese Academy of Sciences	Chu	Zhu-yin	2009	4997GeoReM 4997"
0.512647	0.000006	2SE	TIMS	Chinese Academy of Sciences	Chu	Zhu-yin	2012	6070GeoReM 6070"
0.512608	0.000024	2SIGMA	TIMS	National Cheng Kung University	Liu	Yung-Hsin	2007	2930GeoReM 2930"
0.512643	0.000037	2SE	TIMS	Centre de Recherches Petrographiques et Geochimiques	Aciego	S.M.	2009	4791GeoReM 4791"
0.512613	0.000012	2SIGMA	TIMS	Chinese Academy of Sciences	Jiang	Neng	2009	4543GeoReM 4543"
0.512625	0.00001	2SIGMA	TIMS	Chinese Academy of Geological Sciences	Zhang	Shuan-Hong	2007	3206GeoReM 3206"
0.51265	0.000009	2SIGMA	TIMS	Max-Planck-Institut fuer Chemie	Kaur	P.	2007	3208GeoReM 3208"
0.512651	0.000006	2SIGMA	TIMS	Max-Planck-Institut fuer Chemie	Kaur	P.	2007	3208GeoReM 3208"
0.512648	0.000008	2SIGMA	TIMS	Max-Planck-Institut fuer Chemie	Kaur	P.	2007	3208GeoReM 3208"
0.512637	0.000003	2SIGMA	MC-ICPMS	Northwest University	Gao	Shan	2008	4029GeoReM 4029"
0.512636	0.00001	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Tollstrup	D.	2010	5550GeoReM 5550"
0.512613	0.000012	2SIGMA	TIMS	Chinese Academy of Sciences	Zhang	Xiao-Hui	2010	5285GeoReM 5285"
0.512641	0.00001	2SIGMA	TIMS	Chinese Academy of Sciences	Zhang	Xiao-Hui	2011	6317GeoReM 6317"
0.512628	0.000002	2SIGMA	TIMS	Swedish Museum of Natural History	Alexander	B.W.	2009	3970GeoReM 3970"
0.512633	0.000007	2SIGMA	TIMS	The University of British Columbia	Greene	A.R.	2008	4122GeoReM 4122"
0.512633	0.000007	2SIGMA	TIMS	The University of British Columbia	Greene	A.R.	2009	4485GeoReM 4485"
0.512623	0.00001	2SD	TIMS	University of Copenhagen	Søager	N.	2009	4476GeoReM 4476"
0.512648	0.000004	2SIGMA	TIMS	Institute of Precambrian Geology and Geochronology	Hennig	D.	2009	4892GeoReM 4892"
0.512641	0.000018	2SIGMA	MC-ICPMS	Genalysis Laboratory Services Pty Ltd.	Said	Nuru	2010	5283GeoReM 5283"

0.512624	0.000015	2SIGMA	TIMS	University of Toronto	Ali	A.	2011	5176GeoReM 5176"
0.512643	0.000033	2SD	MC-ICPMS	Victoria University of Wellington	McCoy-West	A.J.	2010	5476GeoReM 5476"
0.512641	0.000006	2SE	MC-ICPMS	University of British Columbia	Babechuk	M.G.	2011	6382GeoReM 6382"
0.512639	0.000015	2SIGMA	MC-ICPMS	University of British Columbia	Babechuk	M.G.	2011	6382GeoReM 6382"
0.512623	0.00001	2SD	TIMS	University of Copenhagen	Soager	N.	2011	5917GeoReM 5917"
0.512633	0.000013	2SIGMA	TIMS	Chinese Academy of Sciences	Lan	Ting-Guang	2011	5926GeoReM 5926"
0.512633	0.000013	2SIGMA	TIMS	Chinese Academy of Sciences	Lan	Ting-Guang	2011	6210GeoReM 6210"
0.512648	0.000004	2SIGMA	TIMS	VSEGEI	Chalapathi Rao	N.V.	2011	6119GeoReM 6119"
0.512637	0.000003	2SIGMA	MC-ICPMS	Northwest University	Pei	Fu-Ping	2011	6212GeoReM 6212"
0.512645	0.000011	2SD	TIMS	Chinese Academy of Sciences	Peng	Peng	2011	6347GeoReM 6347"

Table DR5c. $^{176}\text{Hf}/^{177}\text{Hf}$ in USGS BCR-2

$^{176}\text{Hf}/^{177}\text{Hf}$	Uncertainty	Uncertainty Type	Method	Institution	Last Name	First Name	Year	GeoRem Reference
0.282861	0.000025	2SD	MC-ICPMS	ETH Zürich	Jochum	K.P.	2011	5025GeoReM 5025"
0.282884	0.000007	SD	MC-ICPMS	Université Blaise Pascal	Le Fèvre	B.	2001	310GeoReM 310"
0.282876	0.000006	2SIGMA	MC-ICPMS	Danish Lithosphere Centre	Bizzarro	M.	2003	227GeoReM 227"
0.282873	0.000007	2SIGMA	MC-ICPMS	Danish Lithosphere Centre	Bizzarro	M.	2003	227GeoReM 227"
0.282835	0.000034	2SD	MC-ICPMS	University of British Columbia	Weis	D.	2007	3013GeoReM 3013"
0.282867	0.000018	2SD	MC-ICPMS	University of British Columbia	Weis	D.	2007	3013GeoReM 3013"
0.282861	0.000025	2SD	MC-ICPMS	ETH Zürich	Stracke	A.	2011	5982GeoReM 5982"
0.282891	0.000016	2SIGMA	MC-ICPMS	JAMSTEC	Hanyu	T.	2005	2056GeoReM 2056"
0.282899	0.000008	2SIGMA	MC-ICPMS	JAMSTEC	Hanyu	T.	2005	2056GeoReM 2056"
0.282877	0.000003	2SIGMA	TIMS	Chinese Academy of Sciences	Yang	Yue-Heng	2010	5487GeoReM 5487"
0.282858	0.000006	95%CL	ID	Vrije Universiteit	Nebel	O.	2009	4447GeoReM 4447"
0.282869	0.000004	2SD	MC-ICPMS	University of Texas at Austin	Connelly	J.N.	2006	1592GeoReM 1592"
0.28283	0.000004	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Chu	Zhu-yin	2009	4997GeoReM 4997"
0.282867	0.000043	2SE	MC-ICPMS	Centre de Recherches Petrographiques et Geochimiques	Aciego	S.M.	2009	4791GeoReM 4791"
0.282868	0.000005	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Tollstrup	D.	2010	5550GeoReM 5550"
0.282831	0.000007	2SD	MC-ICPMS	Centre de Recherches Petrographiques et Geochimiques	Martin	C.	2010	5393GeoReM 5393"
0.282874	0.000005	2SIGMA	MC-ICPMS	The University of British Columbia	Greene	A.R.	2008	4122GeoReM 4122"
0.282874	0.000005	2SIGMA	MC-ICPMS	The University of British Columbia	Greene	A.R.	2009	4485GeoReM 4485"
0.282867	0.000005	2SIGMA	MC-ICPMS	The University of British Columbia	Greene	A.R.	2009	4507GeoReM 4507"
0.282878	0.000006	2SE	MC-ICPMS	Cardiff University-BAS/NIGL, BGS	Viccaro	M.	2011	5912GeoReM 5912"
0.282861	0.000025	2SD	MC-ICPMS	ETH Zürich	Koornneef	J.M.	2012	5742GeoReM 5742"
0.282861	0.000008	2SD	MC-ICPMS	The University of Chicago	Pourmand	A.	2010	5369GeoReM 5369"
0.282855	0.000007	2SD	MC-ICPMS	Victoria University of Wellington	McCoy-West	A.J.	2010	5476GeoReM 5476"

Table DR5d. $^{87}\text{Sr}/^{86}\text{Sr}$ in USGS BHVO-2

$^{87}\text{Sr}/^{86}\text{Sr}$	Uncertainty	Uncertainty Type	Method	Institution	Last Name	First Name	Year	GeoRem Reference
0.7037	0.0006	SD	LA-ICPMS	Max-Planck-Institut fuer Chemie	Jochum	K.P.	2009	4451GeoReM 4451"
0.703435	0.000034	2SD	TIMS	Max-Planck-Institut fuer Chemie	Raczek	I.	2003	12GeoReM 12"
0.7035	0.000003	2SD	TIMS	Observatoire de Grenoble	Chauvel	C.	2011	5060GeoReM 5060"
0.703462	0.000009	2SE	TIMS	Vrije Universiteit	Elburg	M.A.	2005	480GeoReM 480"
0.703469	0.000009	2SE	TIMS	Vrije Universiteit	Elburg	M.A.	2005	480GeoReM 480"
0.703469	0.000008	2SE	TIMS	Vrije Universiteit	Elburg	M.A.	2005	480GeoReM 480"
0.703481	0.00002	2SE	MC-ICPMS	University of British Columbia	Weis	D.	2005	295GeoReM 295"
0.703487	0.000019	2SD	TIMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.703479	0.000002	2SD	TIMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.70346	0.00001	2SD	TIMS	The University of British Columbia	Garcia	M.O.	2010	5454GeoReM 5454"
0.703485	0.000017	2SIGMA	TIMS	Carnegie Institution of Washington	Pietruszka	A.J.	2006	1810GeoReM 1810"
0.703495	0.000011	2SD	TIMS	Chinese Academy of Sciences	Yang	Yue-Heng	2009	4775GeoReM 4775"
0.703479	0.000002	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2012	6081GeoReM 6081"
0.703468	0.000014	2SIGMA	TIMS	Chinese Academy of Sciences	Yang	Yue-Heng	2012	6081GeoReM 6081"
0.703491	0.000008	2SIGMA	TIMS	University of Tokyo	Le Roux	V.	2009	3954GeoReM 3954"
0.703496	0.000036	2SIGMA	TIMS	Macquarie University, GEMOC	DuFrane	S.A.	2009	4780GeoReM 4780"
0.703486	0.000021	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Ma	George S.-K.	2011	6335GeoReM 6335"
0.703482	0.000052	2SE	TIMS	Centre de Recherches Petrographiques et Geochimiques	Aciego	S.M.	2009	4791GeoReM 4791"
0.703496	0.000036	2SD	TIMS	Macquarie University	Heyworth	Z.	2007	2992GeoReM 2992"
0.703486	0.000027	2SIGMA	TIMS	Macquarie University	Cunningham	H.S.	2009	4508GeoReM 4508"
0.70342	0.000012	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Ma	Jinlong	2010	5228GeoReM 5228"
0.703495	0.000008	2SIGMA	TIMS	Macquarie University	Handley	H.K.	2008	4049GeoReM 4049"
0.70349	0.000052	2SD	TIMS	Macquarie University, GEMOC	Handley	H.K.	2011	6242GeoReM 6242"
0.70348	0.000013	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Tollstrup	D.	2010	5550GeoReM 5550"
0.703473	0.000008	2SIGMA	TIMS	The University of British Columbia	Greene	A.R.	2008	4122GeoReM 4122"
0.703473	0.000008	2SIGMA	TIMS	The University of British Columbia	Greene	A.R.	2009	4485GeoReM 4485"
0.70346	0.000007	2SIGMA	TIMS	The University of British Columbia	Greene	A.R.	2009	4507GeoReM 4507"
0.70349	0.000052	2SD	TIMS	Universität Kiel	Janousek	V.	2010	5740GeoReM 5740"
0.70348	0.000052	2SD	MC-ICPMS	Ghent University	Smet	I.	2010	5098GeoReM 5098"
0.703495	0.000011	2SD	TIMS	Chinese Academy of Sciences	Mitchell	R.H.	2011	5904GeoReM 5904"
0.703467	0.000018	2SD	MC-ICPMS	Victoria University of Wellington	McCoy-West	A.J.	2010	5476GeoReM 5476"
0.703474	0.000021	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Todd	E.	2011	6234GeoReM 6234"
0.703507	0.000008	2SE	TIMS	Macquarie University	Adam	J.	2011	6117GeoReM 6117"
0.703488	0.000007	2SIGMA	TIMS	Vrije Universiteit	Meyer	I.	2011	6181GeoReM 6181"
0.703417	0.000009	2SD	TIMS	Vrije Universiteit	Wiesmaier	S.	2011	6195GeoReM 6195"
0.703496	0.000036	SD	TIMS	Macquarie University	McGee	L.E.	2011	6196GeoReM 6196"
0.703474	0.000011	SD	TIMS	Chinese Academy of Sciences	Zhang	Yan-Long	2011	6338GeoReM 6338"

Table DR5e. $^{143}\text{Nd}/^{144}\text{Nd}$ in USGS BHVO-2

$^{143}\text{Nd}/^{144}\text{Nd}$	Uncertainty	Uncertainty Type	Method	Institution	Last Name	First Name	Year	GeoRem Reference
0.512957	0.000038	2SD	TIMS	Max-Planck-Institut fuer Chemie	Raczek	I.	2003	12GeoReM 12"
0.512985	0.000007	2SD	MC-ICPMS	Observatoire de Grenoble	Chauvel	C.	2011	5060GeoReM 5060"
0.512977	0.00001	2SD	MC-ICPMS	Observatoire de Grenoble	Chauvel	C.	2011	5060GeoReM 5060"
0.512983	0.00001	2SE	MC-ICPMS	University of British Columbia	Weis	D.	2005	295GeoReM 295"
0.512981	0.00001	2SD	TIMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.512984	0.000011	2SD	TIMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.512987	0.00001	2SD	MC-ICPMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.51299	0.0001	2SD	MC-ICPMS	University of British Columbia	Weis	D.	2006	1209GeoReM 1209"
0.513005	0.000007	2SD	TIMS	The University of British Columbia	Garcia	M.O.	2010	5454GeoReM 5454"
0.512973	0.00001	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Wang	Xuan-Ce	2011	6380GeoReM 6380"
0.512973	0.00001	2SD	MC-ICPMS	Chinese Academy of Sciences	Wang	Xuan-Ce	2011	6380GeoReM 6380"
0.512987	0.00001	2SD	TIMS	Chinese Academy of Sciences	Yang	Yue-Heng	2009	4775GeoReM 4775"
0.512994	0.000014	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2011	5762GeoReM 5762"
0.512999	0.000014	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2011	5762GeoReM 5762"
0.512991	0.00001	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2011	5762GeoReM 5762"
0.512992	0.000012	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Scher	H.D.	2010	5229GeoReM 5229"
0.512971	0.000005	2SIGMA	TIMS	University of Tokyo	Le Roux	V.	2009	3954GeoReM 3954"
0.512961	0.000009	2SIGMA	MC-ICPMS	University of Tokyo	Le Roux	V.	2009	3954GeoReM 3954"
0.512963	0.00002	2SIGMA	TIMS	Macquarie University, GEMOC	DuFrane	S.A.	2009	4780GeoReM 4780"
0.512984	0.000011	2SD	TIMS	Chinese Academy of Sciences	Li	Chao-Feng	2007	3164GeoReM 3164"
0.513002	0.000014	2SD	TIMS	Chinese Academy of Sciences	Li	Chao-Feng	2007	3164GeoReM 3164"
0.512996	0.000012	2SD	TIMS	Chinese Academy of Sciences	Li	Chao-Feng	2007	3164GeoReM 3164"
0.512989	0.000009	2SD	TIMS	Chinese Academy of Sciences	Li	Chao-Feng	2007	3164GeoReM 3164"
0.512951	0.00001	2SE	TIMS	Chinese Academy of Sciences	Chu	Zhu-yin	2009	4680GeoReM 4680"
0.512987	0.000006	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Ma	George S.-K.	2011	6335GeoReM 6335"
0.512996	0.000026	2SE	TIMS	Centre de Recherches Petrographiques et Geochimiques	Aciego	S.M.	2009	4791GeoReM 4791"
0.512963	0.00002	2SD	TIMS	Macquarie University	Heyworth	Z.	2007	2992GeoReM 2992"
0.512966	0.00003	2SIGMA	TIMS	Macquarie University	Cunningham	H.S.	2009	4508GeoReM 4508"
0.51295	0.000008	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Ma	Jinlong	2010	5228GeoReM 5228"
0.512971	0.000006	2SIGMA	TIMS	Macquarie University	Handley	H.K.	2008	4049GeoReM 4049"
0.512967	0.000006	2SD	TIMS	Macquarie University, GEMOC	Handley	H.K.	2011	6242GeoReM 6242"
0.512989	0.000002	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Tollstrup	D.	2010	5550GeoReM 5550"
0.51298	0.000006	2SIGMA	TIMS	The University of British Columbia	Greene	A.R.	2008	4122GeoReM 4122"
0.51298	0.000006	2SIGMA	TIMS	The University of British Columbia	Greene	A.R.	2009	4485GeoReM 4485"
0.512978	0.000006	2SIGMA	TIMS	The University of British Columbia	Greene	A.R.	2009	4507GeoReM 4507"
0.512967	0.000006		TIMS	Universität Kiel	Janousek	V.	2010	5740GeoReM 5740"
0.512998	0.000018	2SIGMA	MC-ICPMS	Genalysis Laboratory Services Pty Ltd.	Said	Nuru	2010	5283GeoReM 5283"
0.512987	0.00001	2SD	TIMS	Chinese Academy of Sciences	Mitchell	R.H.	2011	5904GeoReM 5904"
0.512982	0.000028	2SD	MC-ICPMS	Victoria University of Wellington	McCoy-West	A.J.	2010	5476GeoReM 5476"
0.512987	0.000006	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Todd	E.	2010	5488GeoReM 5488"
0.512987	0.000006	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Todd	E.	2011	6234GeoReM 6234"
0.512988	0.000008	2SD	MC-ICPMS	University of California at Santa Cruz	Todd	E.	2011	6234GeoReM 6234"
0.512986	0.000002	2SIGMA	TIMS	Observatoire de Physique du Globe de Clermont-Ferrand	Rizo	Hanika	2011	5985GeoReM 5985"
0.512989	0.000005	2SIGMA	TIMS	Observatoire de Physique du Globe de Clermont-Ferrand	Rizo	Hanika	2011	5985GeoReM 5985"

0.512968	0.000004	2SE	TIMS	Macquarie University	Adam	J.	2011	6117GeoReM 6117"
0.512987	0.000005	2SIGMA	TIMS	Vrije Universiteit	Meyer	I.	2011	6181GeoReM 6181"
0.51298	0.00005	2SD	MC-ICPMS	Vrije Universiteit	Wiesmaier	S.	2011	6195GeoReM 6195"
0.512963	0.00002	SD	TIMS	Macquarie University	McGee	L.E.	2011	6196GeoReM 6196"
0.51300	0.000015	SD	TIMS	Chinese Academy of Sciences	Zhang	Yan-Long	2011	6338GeoReM 6338"

Table DR5f. $^{176}\text{Hf}/^{177}\text{Hf}$ in USGS BHVO-2

$^{176}\text{Hf}/^{177}\text{Hf}$	Uncertainty	Uncertainty Type	Method	Institution	Last Name	First Name	Year	GeoRem Reference
0.283107	0.000016	2SD	MC-ICPMS	ETH Zürich	Jochum	K.P.	2011	5025GeoReM 5025"
0.283137	0.000009	2SIGMA	MC-ICPMS	Universität Münster	Pfänder	J.A.	2007	2953GeoReM 2953"
0.283138	0.000008	2SIGMA	MC-ICPMS	Universität Münster	Pfänder	J.A.	2007	2953GeoReM 2953"
0.283106	0.000011	2SD	MC-ICPMS	Observatoire de Grenoble	Chauvel	C.	2011	5060GeoReM 5060"
0.283098	0.000011	2SD	MC-ICPMS	Observatoire de Grenoble	Chauvel	C.	2011	5060GeoReM 5060"
0.283114	0.00001	2SIGMA	MC-ICPMS	Danish Lithosphere Centre	Basu	A.R.	1996	228GeoReM 228"
0.283118	0.000005	2SIGMA	MC-ICPMS	Danish Lithosphere Centre	Basu	A.R.	1996	228GeoReM 228"
0.283096	0.0002	2SE	MC-ICPMS	University of British Columbia	Weis	D.	2005	295GeoReM 295"
0.283055	0.000034	2SD	MC-ICPMS	University of British Columbia	Weis	D.	2007	3013GeoReM 3013"
0.283101	0.000026	2SD	MC-ICPMS	University of British Columbia	Weis	D.	2007	3013GeoReM 3013"
0.283099	0.000004	2SD	MC-ICPMS	The University of British Columbia	Garcia	M.O.	2010	5454GeoReM 5454"
0.283107	0.000016	2SD	MC-ICPMS	ETH Zürich	Stracke	A.	2011	5982GeoReM 5982"
0.283097	0.000011	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Wang	Xuan-Ce	2011	6380GeoReM 6380"
0.283097	0.000011	2SD	MC-ICPMS	Chinese Academy of Sciences	Wang	Xuan-Ce	2011	6380GeoReM 6380"
0.283095	0.000008	2SD	TIMS	Chinese Academy of Sciences	Yang	Yue-Heng	2009	4775GeoReM 4775"
0.283094	0.000008	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Yang	Yue-Heng	2011	6369GeoReM 6369"
0.283101	0.000005	95%CL	MC-ICPMS	Vrije Universiteit	Nebel	O.	2009	4447GeoReM 4447"
0.283104	0.000006	95%CL		Vrije Universiteit	Nebel	O.	2009	4447GeoReM 4447"
0.283107	0.00002	2SIGMA	MC-ICPMS	University of Tokyo	Le Roux	V.	2009	3954GeoReM 3954"
0.283101	0.00005	2SE	MC-ICPMS	Centre de Recherches Petrographiques et Geochimiques	Aciego	S.M.	2009	4791GeoReM 4791"
0.283102	0.000013	2SD	MC-ICPMS		Wittig	N.	2007	3195GeoReM 3195"
0.283112	0.000016	2SIGMA	MC-ICPMS	Macquarie University, GEMOC	Turner	S.P.	2009	4782GeoReM 4782"
0.283102	0.000002	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Tollstrup	D.	2010	5550GeoReM 5550"
0.283098	0.000005	2SIGMA	MC-ICPMS	Chinese Academy of Sciences	Zhang	Lian-chang	2008	3759GeoReM 3759"
0.283045	0.000008	2SD	MC-ICPMS	Centre de Recherches Petrographiques et Geochimiques	Martin	C.	2010	5393GeoReM 5393"
0.283114	0.000006	2SIGMA	MC-ICPMS		Greene	A.R.	2008	4122GeoReM 4122"
0.283114	0.000006	2SIGMA	MC-ICPMS	The University of British Columbia	Greene	A.R.	2009	4485GeoReM 4485"
0.2831	0.000005	2SIGMA	MC-ICPMS	The University of British Columbia	Greene	A.R.	2009	4507GeoReM 4507"
0.283107	0.000016	2SD	MC-ICPMS	ETH Zürich	Koornneef	J.M.	2012	5742GeoReM 5742"
0.283098	0.000005	2SD	MC-ICPMS	Victoria University of Wellington	McCoy-West	A.J.	2010	5476GeoReM 5476"
0.283096	0.000005	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Todd	E.	2010	5488GeoReM 5488"
0.283096	0.000005	2SIGMA	MC-ICPMS	University of California at Santa Cruz	Todd	E.	2011	6234GeoReM 6234"
0.283092	0.000018	2SD	MC-ICPMS	University of California at Santa Cruz	Todd	E.	2011	6234GeoReM 6234"
0.283111	0.00002	2SD	MC-ICPMS	Macquarie University, GEMOC	Donnelly	C.L.	2011	6120GeoReM 6120"
0.283133	0.000004	SD	MC-ICPMS	Universität Bonn	Hoffmann	J.E.	2011	6217GeoReM 6217"
0.283109	0.000005	SD	MC-ICPMS	Chinese Academy of Sciences	Zhang	Yan-Long	2011	6338GeoReM 6338"

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