Methods

U–Pb zircon petrochronology was performed at the University of California, Santa Barbara LASS lab (http://sites.google.com/site/icpgeolucsb/) using a Nu Plasma HR MC-ICPMS, a Nu AttoM SC-ICPMS (Nu Instruments Ltd., Wrexham, UK) and an Analyte 193 excimer ArF laser-ablation system equipped with a HeLex sample cell (Photon Machines, San Diego, USA). The analytical setup is described in Table 1. The ablated aerosol is carried by He from the sample cell to a mixing bulb in which the sample + He is mixed with Ar to stabilize the aerosol input to the plasma. The He-Ar-aerosol is immediately split upon exiting the mixing bulb, with approximately half the ablation stream directed to each ICPMS. Laser energy is set to 4 mJ, which, once transmitted into the sample chamber, equates to ~0.1 μm/pulse; repetition rate is set to 4 Hz; single-ablation duration was 20–25 seconds; and spot diameters ranged from 12-14 μm with depths of ~8 μm.

U–Pb dates were obtained with the Nu Plasma, equipped with four low-mass side electron multipliers for simultaneous measurement of ^{208}Pb, ^{207}Pb, ^{206}Pb and ^{204}Pb; ^{238}U and ^{232}Th were measured on Faraday cups equipped with 1011-ohm resistors. The Nu AttoM was used in "E-Scan" mode to measure REE and Hf concentrations. Because standard analyses are matrix-matched (see below), internal standardization was unnecessary. Sample analyses were preceded by a 10-second baseline measurement, and unknown analyses were corrected with the 91500 zircon standard (Wiedenbeck et al. 1995) every 7 measurements (~5 min.). For quality control, the zircon reference material GJ1 (601 Ma, Jackson et al., 2004) was run after each 91500 analysis, and yielded a

$^{206}Pb/^{238}U$ age of 609.8 ± 2.5 Ma (n = 34; MSWD = 1.5; in-run error). The Plešovice reference material (Slama et al., 2008) was also analyzed throughout the analytical session and yielded a concordia age of 337.6 ± 0.9 Ma (n = 27; MSWD = 0.76; in-run error). Post-data processing was performed using Iolite (Paton et al., 2010), and concordia plots were produced with Isoplot (Ludwig, 2003).

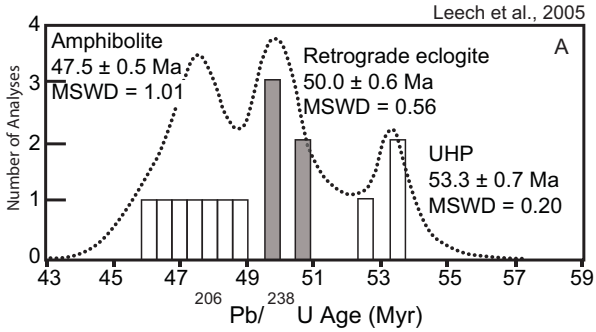
Supplementary Figure DR1 Probability Density Function of $^{238}U/^{206}Pb$ ages (^{207}Pb-corrected) from Leech et al. (2005) and St-Onge et al. (in press). Displayed ages represent Concordia intercept ages of subpopulations as provided by the original authors; age significance is also as proposed by the original authors.

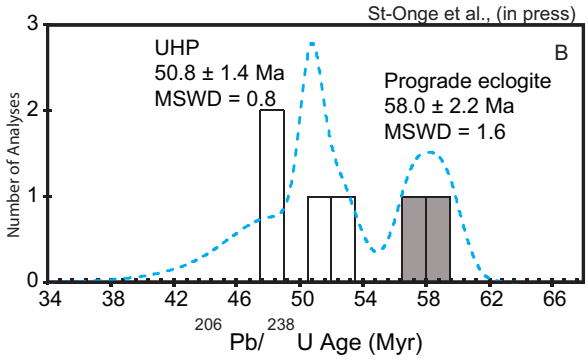
Zircon geochronology data sets of Leech et al. (2005) and St-Onge et al. (in press) do not provide sufficient information to resolve the timing of peak (UHP) metamorphism (cf. Fig. 3).

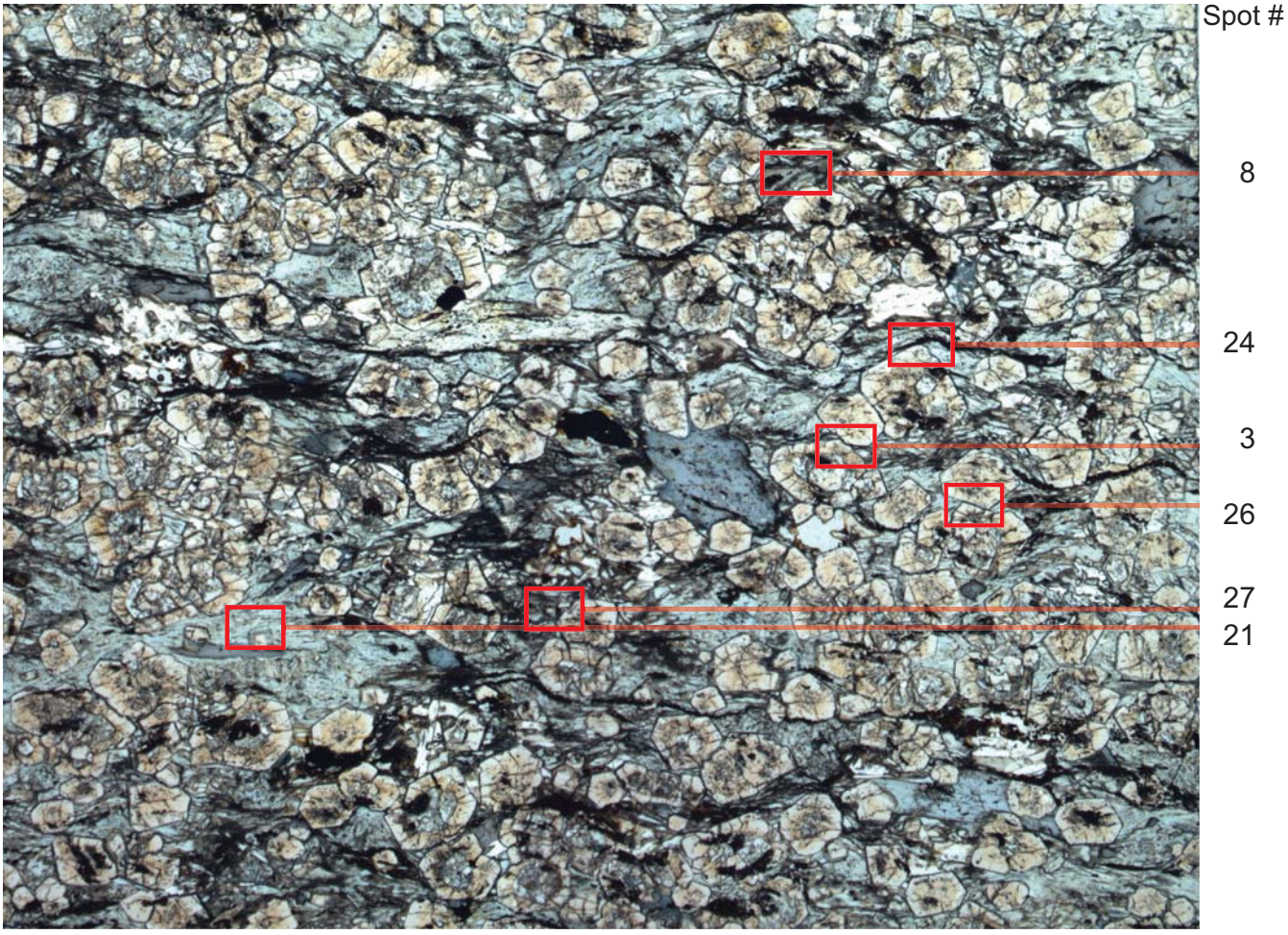
There are two challenges with the Leech et al. (2005) data set: 1) There is no petrologic evidence to associate zircon growth with metamorphic events. This is because the analyses were not in situ and information about inclusions within zircon grain separates was not presented. 2) The data are not as statistically meaningful as those authors suggest. For instance, the mean square weighted deviates (MSWD) statistic is provided, but this statistic only begins to provide meaningful resolution of an age population when the number of analyses is at least 5 (Wendt and Carl, 1991). The resolution for discerning multiple age populations increases as the number of analyses increases. All of the interpreted ages for HP/UHP events by Leech et al. (2005) are based on a small number of analyses (n=5,3 respectively).

St-Onge et al. (in press) provide petrologic information defining Tso Morari eclogitic assemblages in relation to dated zircon. These authors analyzed spots from zircon included in garnet cores, which yielded the interpreted prograde age; and matrix zircon spots, which yielded the interpreted peak (UHP) age. The matrix zircons are in association with phengite, rutile, barroisite and omphacite (one of the analyzed 'matrix' zircons is included in omphacite). The dated matrix zircons have similar Th/U ratios, morphology, and zonation patterns to an undated zircon included in UHP garnet, and are thus interpreted by St-Onge et al. to have crystallized at UHP conditions.

St-Onge et al. (in press) did not resolve the second challenge of an insufficient number of analyses. St-Onge et al. (in press) analyzed two zircons included in garnet cores (prograde, eclogitic) and only four zircons interpreted to crystallize at UHP conditions. Three of the four UHP age results are highly discordant, such that the interpreted UHP U-Pb intercept age is dominantly determined by projection through just one nearly concordant zircon analysis (see their Figure 17).

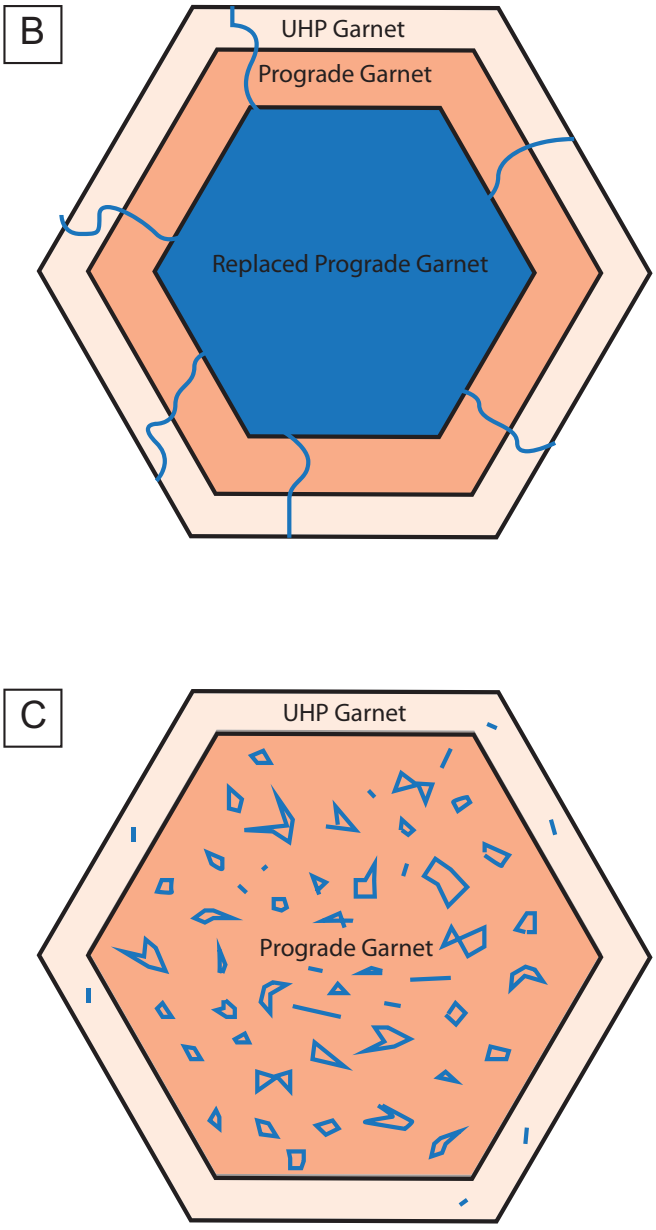






Supplementary Figure DR2 A . Representative image of CM71710-4 petrographic thin section. Boxes represent area of analyses denoted with the number corresponding to Figure A3 and Table A1.

In the following sections of Figure A2 representative transmitted, cross polarized and reflected light images of the analyzed zircon. The images demonstrate the major zircon settings: 1) Zircons included in UHP garnet. 2) Zircons included in omphacite. 3) Zircons in the matrix. Example of garnet structures can be found in A3-B and A3-C.



Supplementary Figure DR2. Illustration showing the garnet characteristics in both samples. Detailed descriptions of UHP Tso Morari garnets can be found in O'brien, 2006 and Konrad-Schmolke et al., 2008. B) Atoll garnet structure, "Replaced Prograde Garnet" was previous Ca-rich garnet that has been consumed and replaced by other HP-UHP minerals. This zone is also referred to as the core of the atoll garnet. "Prograde Garnet", is the Ca-rich remnants that have survived consumption at HP and UHP metamorphism. "UHP Garnet" is the Mg-rich overgrowth in which coesite is typically found in UHP eclogites indicating growth at UHP conditions. C) Garnet with Ca-rich high inclusion idioblastic core and Mg-rich low inclusion rim. "Prograde Garnet" is the idioblastic Ca-rich core. "UHP Garnet" is the Mg-rich rim.

Supplementary Figure DR2 (Spot 3)

Zircon in UHP garnet

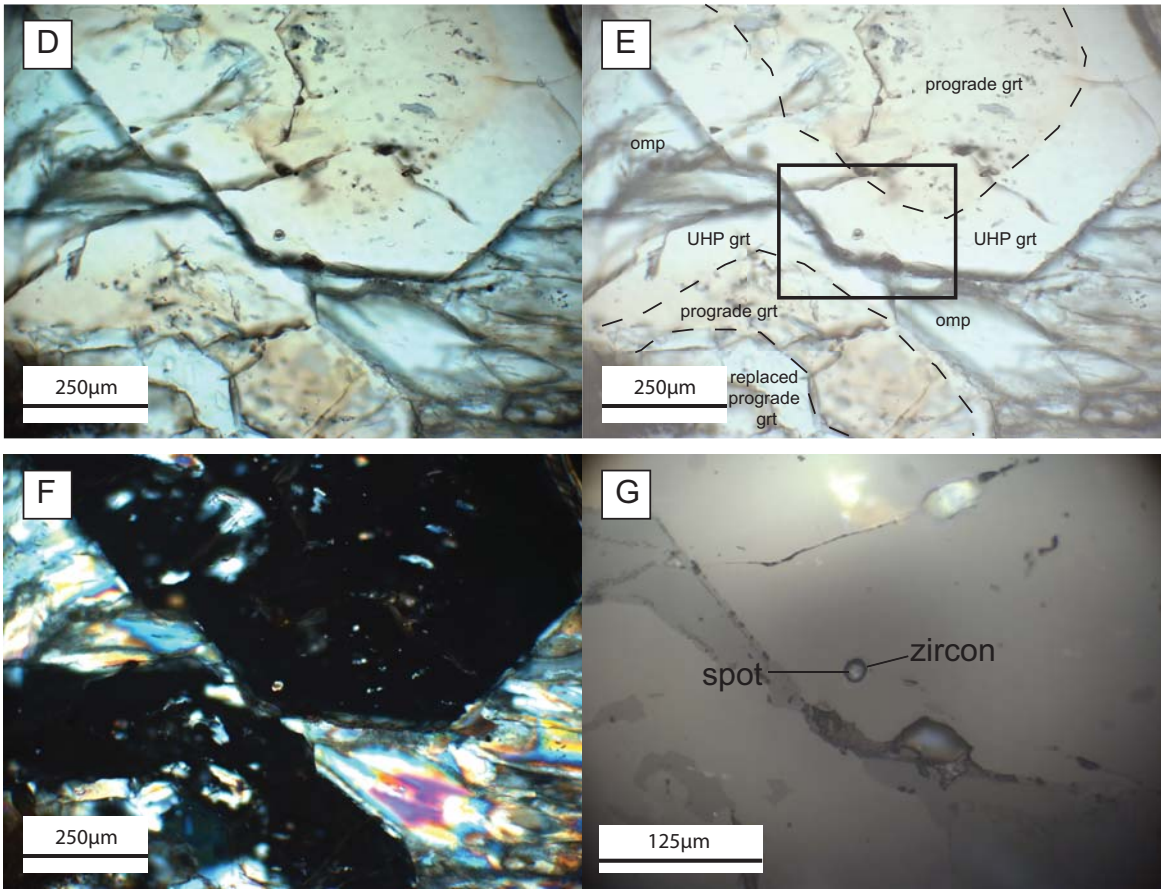


Figure DR2 (Spot 3): D is a TL image of the sample; E is an annotated version of D; F is XPL image; G is a refl ected light image. grt = garnet; omp= omphacite; Spot signals where zircon was shot.

Supplementary Figure DR2 (Spot 26)

Zircon in UHP garnet

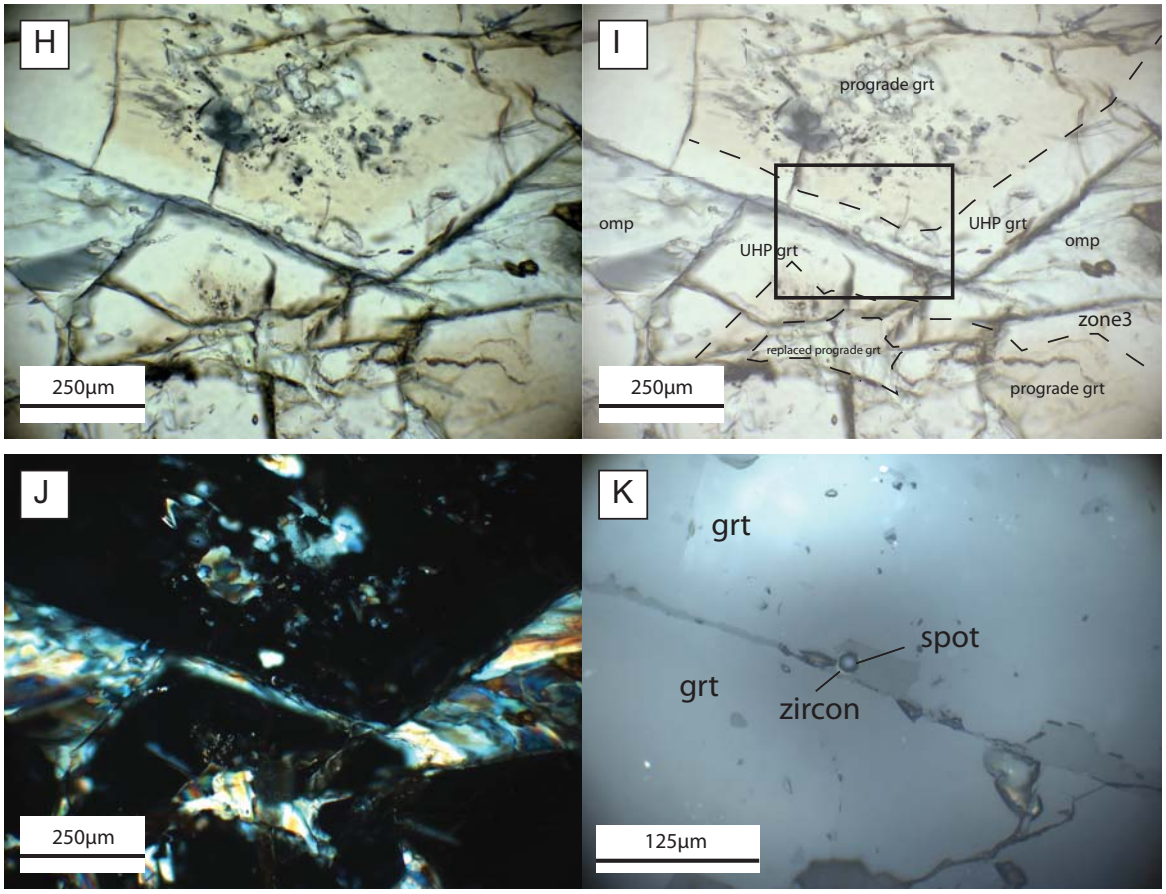


Figure DR2 (Spot 26) H is a TL image of the sample; I is an annotated version of H.; J is XPL image; K is a reflected light image; grt = garnet; omp= omphacite; Spot signals where zircon was shot.

Supplementary Figure DR2 (Spot 21)

Zircon in omphacite

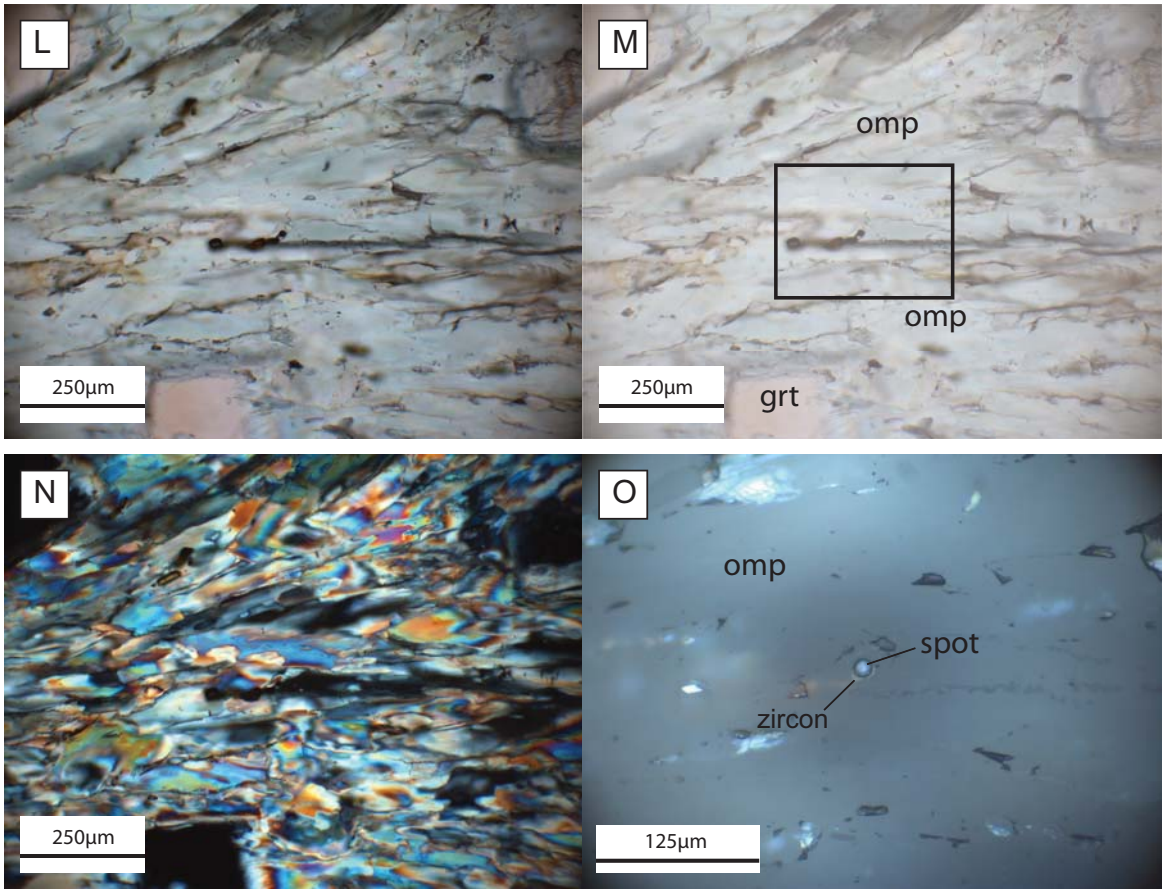


Figure DR2 (Spot 21), L is a TL image of the sample; M is an annotated version of L; N is XPL image; M is a reflected light image; grt = garnet; omp= omphacite; rut = rutile. Spot signals where zircon was shot.

Supplementary Figure DR2 (Spot 27)

Zircon in omphacite

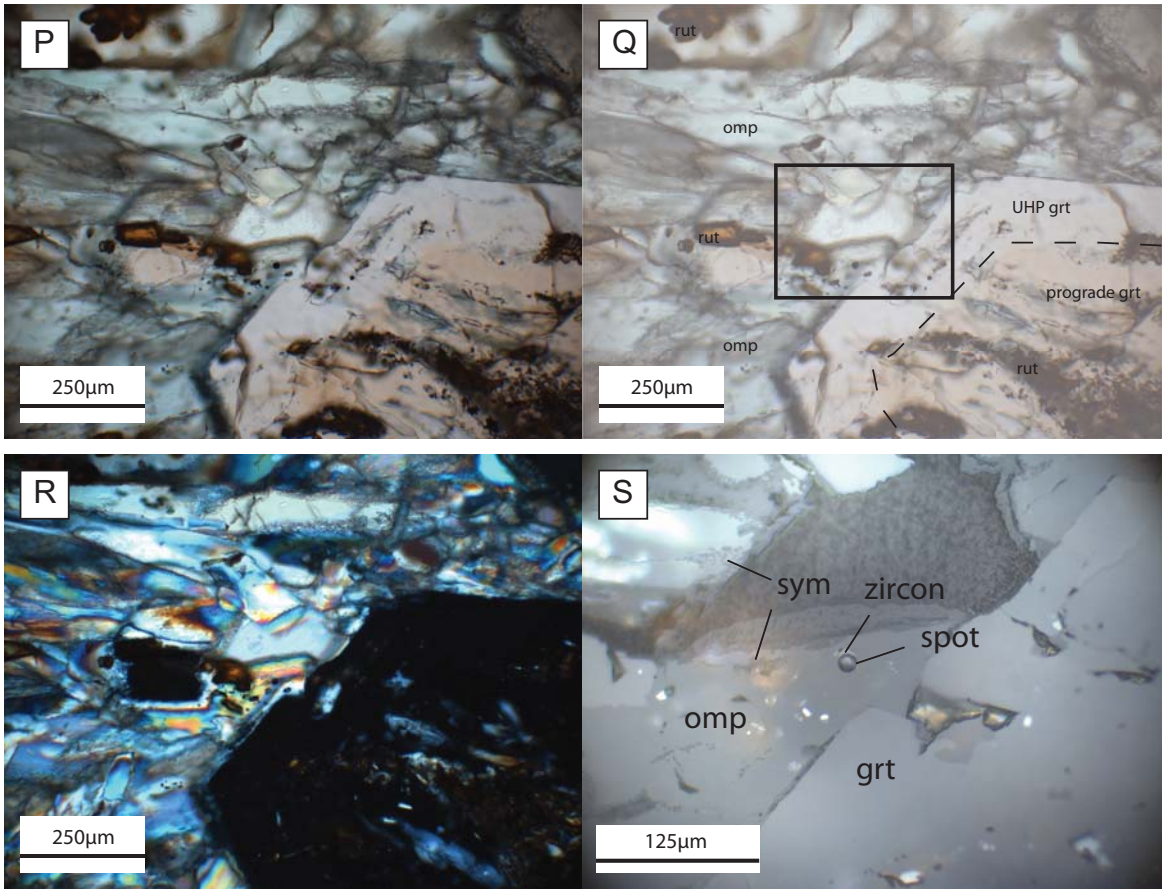


Figure DR2 (Spot 27), P is a TL image of the sample; Q is an annotated version of P; R is XPL image; S is a reflected light image; grt = garnet; omp= omphacite; sym = symplectite rut = rutile. Spot signals where zircon was shot.

Supplementary Figure DR2 (Spot 8)

Zircon in matrix

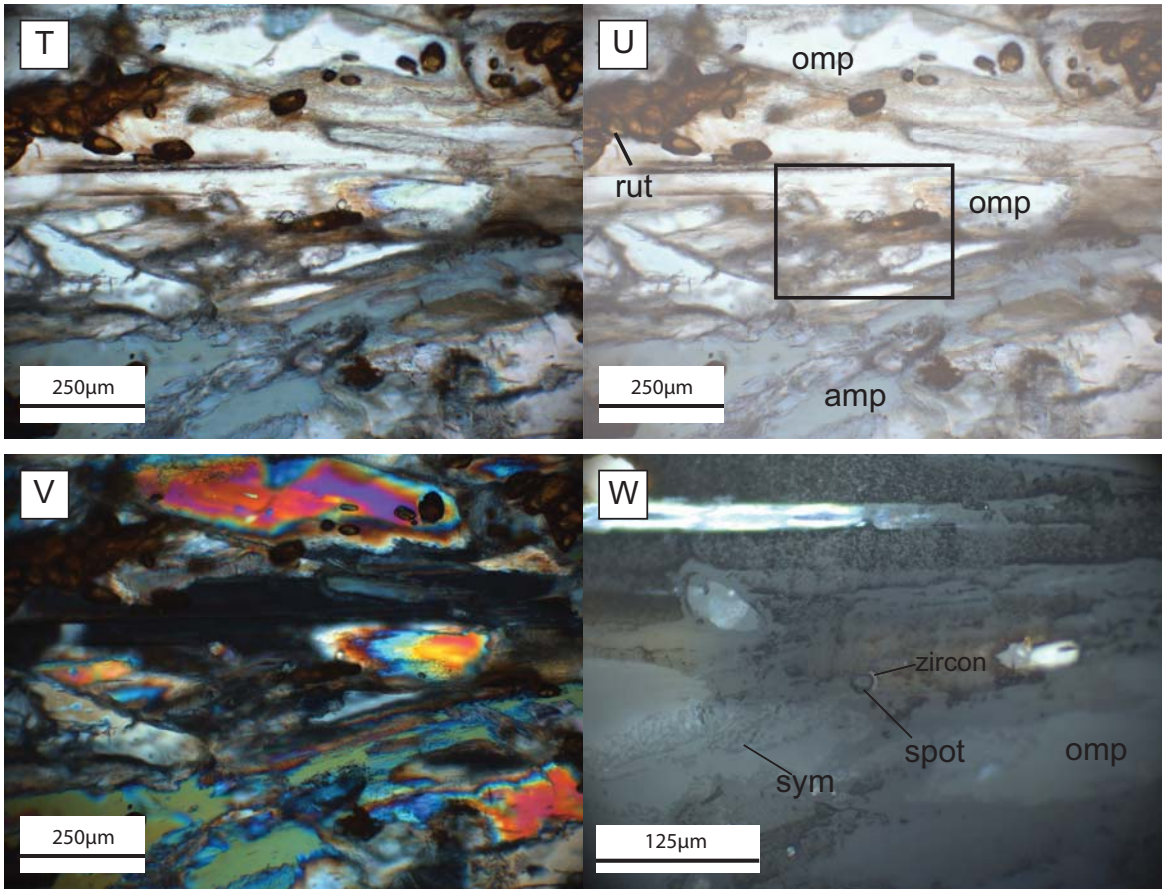


Figure DR2 (Spot 8), T is a TL image of the sample; U is an annotated version of T; V is XPL image; W is a reflected light image. amp = amphibole; omp= omphacite; sym = symplectite rut = rutile. Spot signals where zircon was shot.

Supplementary Figure DR2 (Spot 24)

Zircon in the matrix

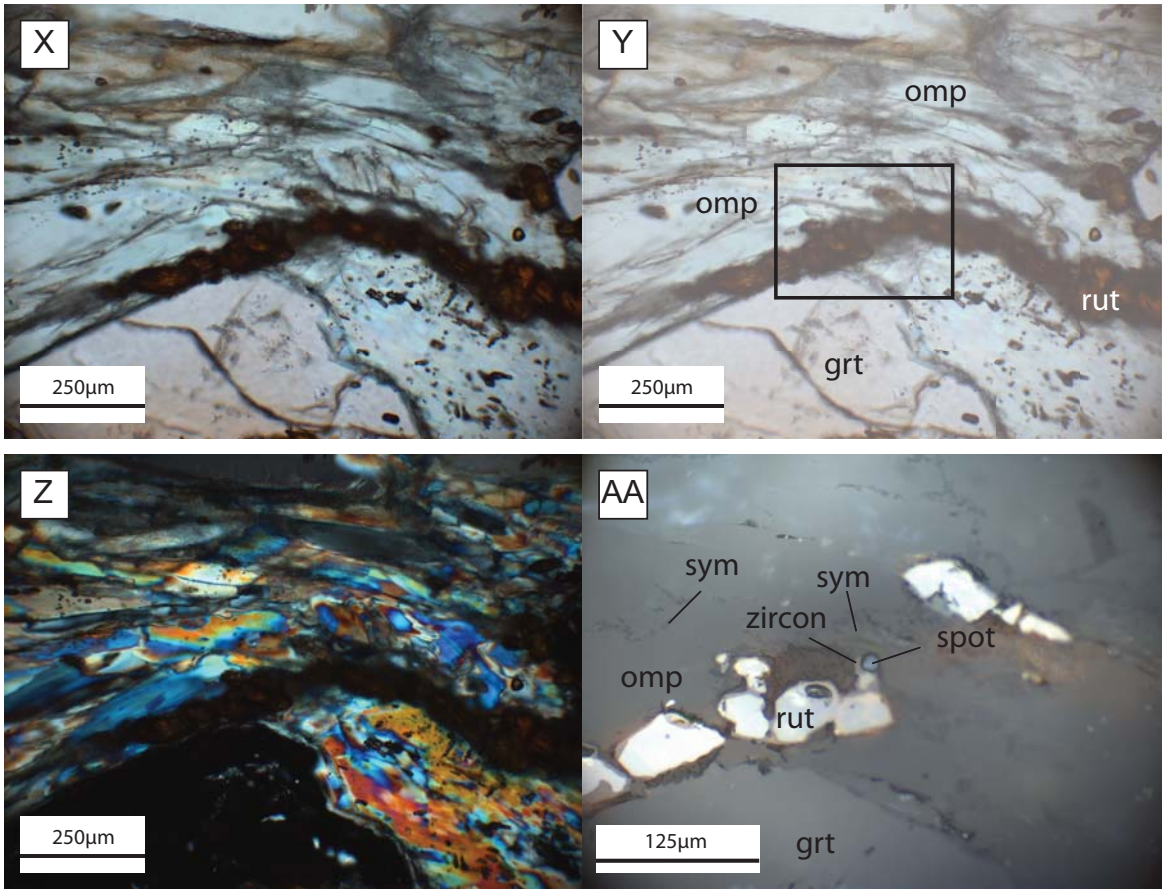
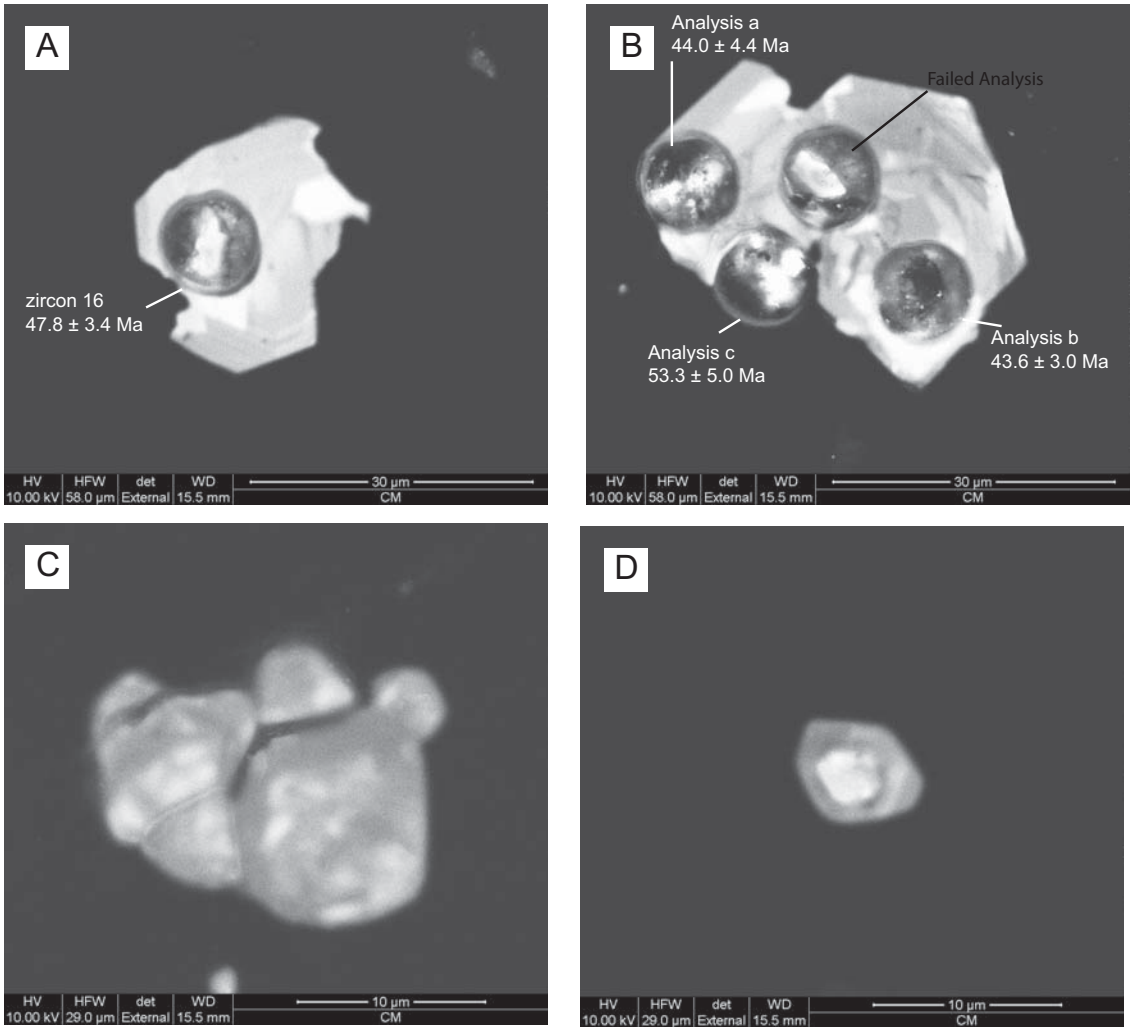
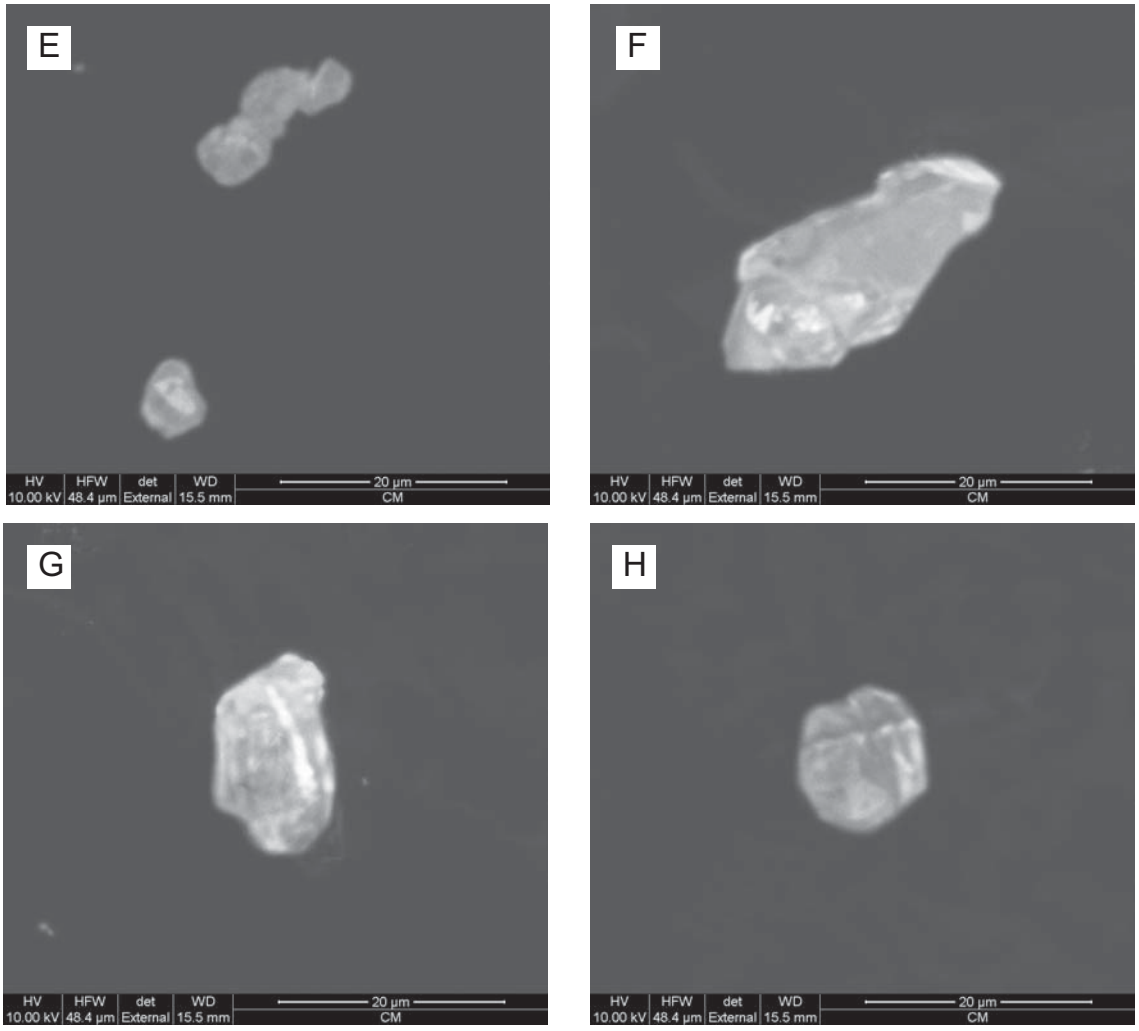


Figure DR2 (Spot 24), X is a TL image of the sample; Y is an annotated version of X; Z is XPL image; AA is a reflected light image; grt = garnet; omp= omphacite; sym = symplectite; rut = rutile. Spot signals where zircon was shot.

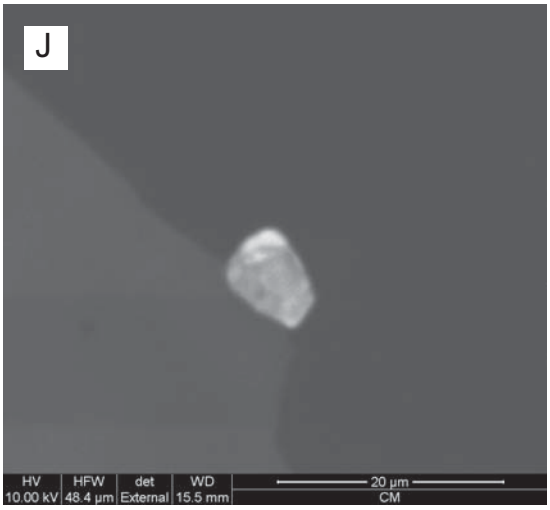
Supplementary Figure DR3 Cathodoluminescence images of *in situ* zircon grains from CM71710-4 and DD71710-2b eclogites. Images show zoning characteristics of analysed and representative zircons. Cathodluminescense of zircon can reveal the internal structure of the mineral and distinguish between homegenous and heterogenous crystallization. The majority of the images exhibit irregular patchy zoning similar to "auroral lights" zoning (Corfu et al., 2003) indicative of a high pressure event. Images A-B of A3 are of analyzed spots which generally show oscillatory zoning with possibility of recrystallization indicative of brighter illumination regions in the grain. Images with defined cores can be interpreted to have older and younger generations of growth. Unclear zoning of some images may result from unpolished zircon surface of *in situ* grains.

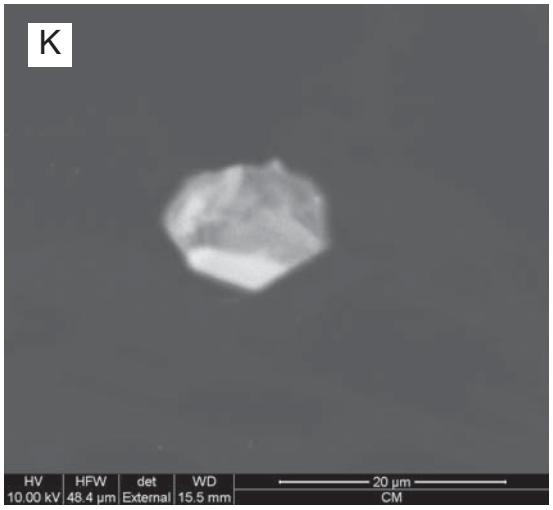


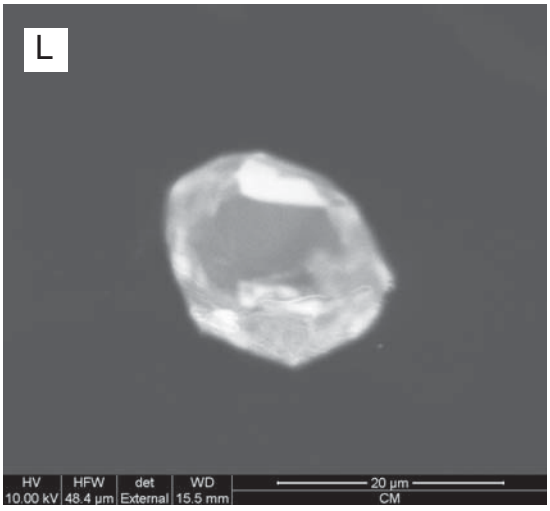
Supplementary Figure DR3 - Cathodoluminescense Images in CM71710-4 A) CL image of zircon shot in analysis 16 = 47.8 ± 3.4 Ma . Image shows possible recrystallization in brighter areas outside of spot diameter. Zoning is generally oscillatory. B) CL image of zircon shot in analyses 31a-c. Fourth image analysis in the center of the image was not within detection limits of the rest of the analyses. "Analysis a" has a 207-Pb-corrected age of 44.0 ± 4.4 Ma; "Analysis b" = 43.6 ± 3.0 Ma; "Analysis c" 53.3 ± 5.0 Ma. Zoning appears to be heterogeneously patchy. C) CL image of zircon cluster included in UHP garnet rim. Zoning is irregular and patchy . D)CL image of zircon grain included in UHP garnet. Zoning appears heterogeneous with a distinct core and metamorphic rim.



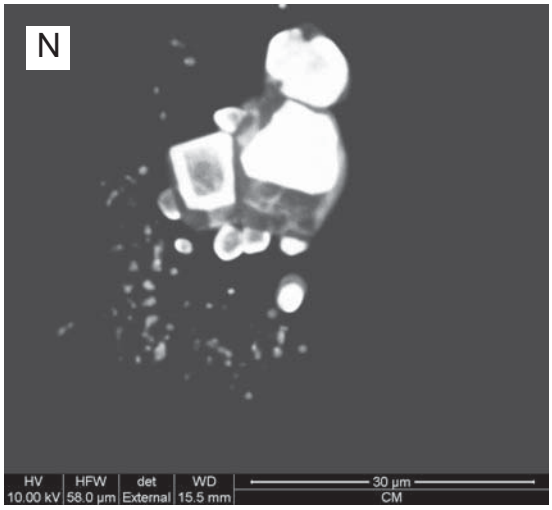
Supplementary Figure DR3 continued - Cathodoluminescense Images in DD71710-2b. E) CL image of zircon cluster included in UHP garnet. Zoning is irregular patchy. Lone zircon appears to have a distinct core. F)CL image of zircon in the matrix with irregular and patchy zoning. G) CL image of zircon in matrix near symplectite. Zoning is irregularly patchy with possible metamictization. H) CL image of zircon in the matrix near symplectite. Zoning is irregularly patchy with possible metamictization.

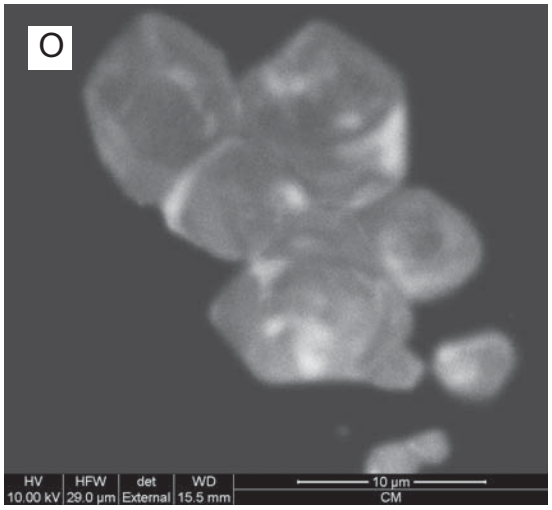




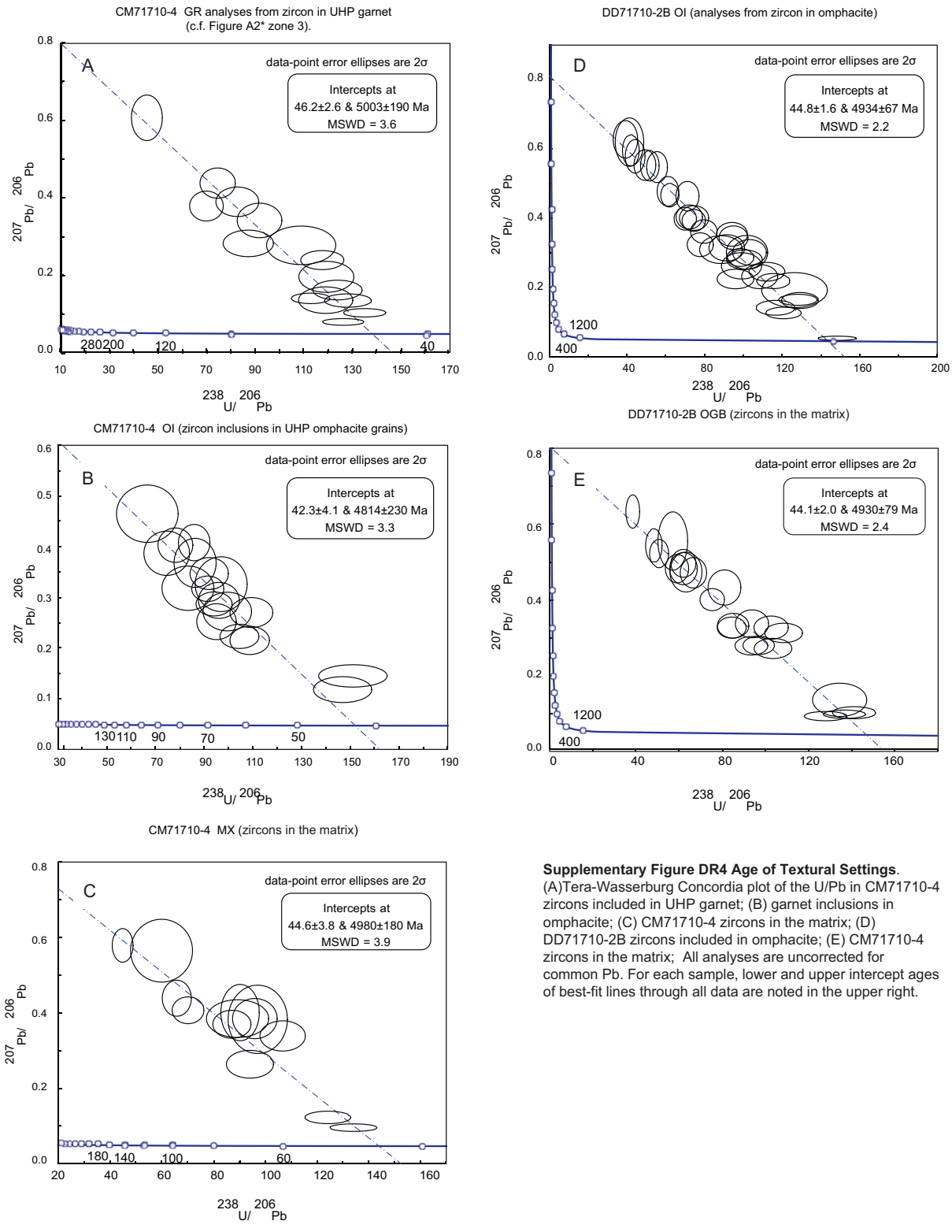


Supplementary Figure DR3 continued - Cathodoluminescense Images in DD71710-2b. J) CL of a zircon in the matrix near garnet/ompachite grain boundary with irregular patchy zoning. K) CL of zircon near a rutile grain in matrix. Zoning is generally patchy besides the lower end of the grain which exhibits higher contrast. L) CL of zircon in the matrix. The grain exhibits a core and a possible zone of recrystallization, indicative of the higher contrast region at the top of the grain.

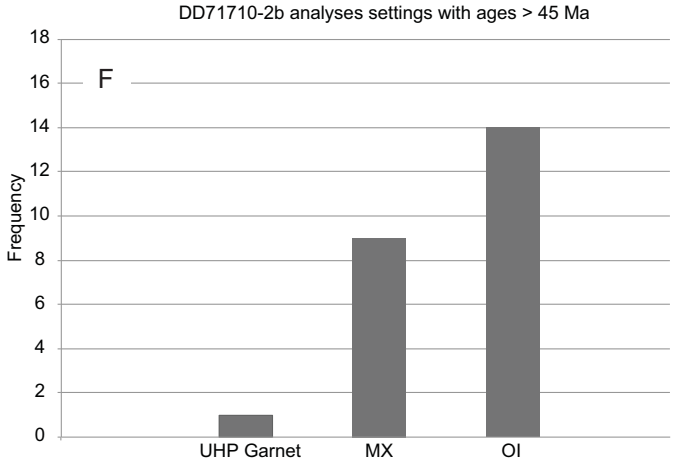


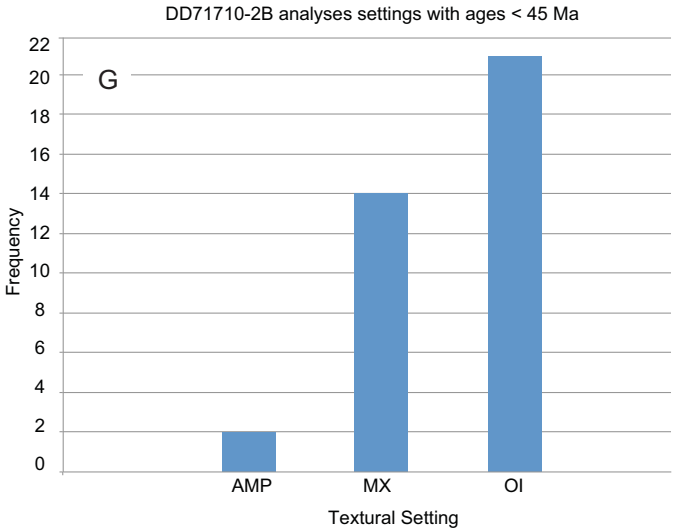


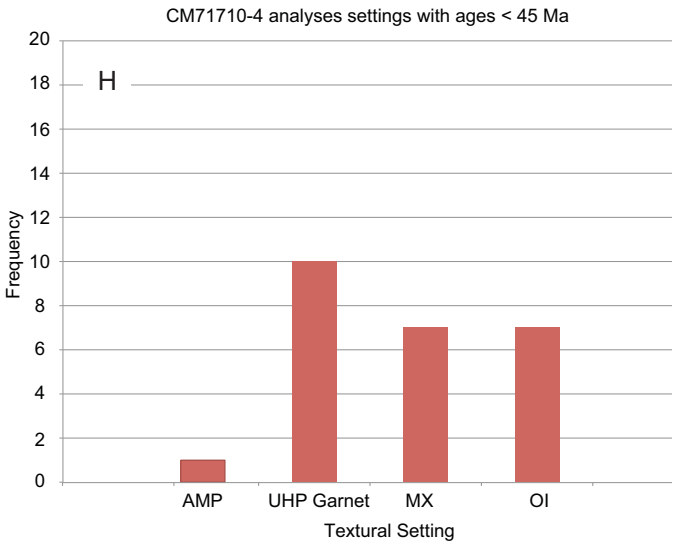
Supplementary Figure DR3 Cathodoluminescense Images in CM71710-4 (M-O) and DD71710-2b (P). N) CL image of zircon cluster in the matrix with defined areas of metamorphic rim growth indicative of the darker contrast. O) CL image of zircon cluster with irregular patchy zoning near garnet grain boundary. P) CL image of zircon included in omphacite with indistinct patchy zoning.

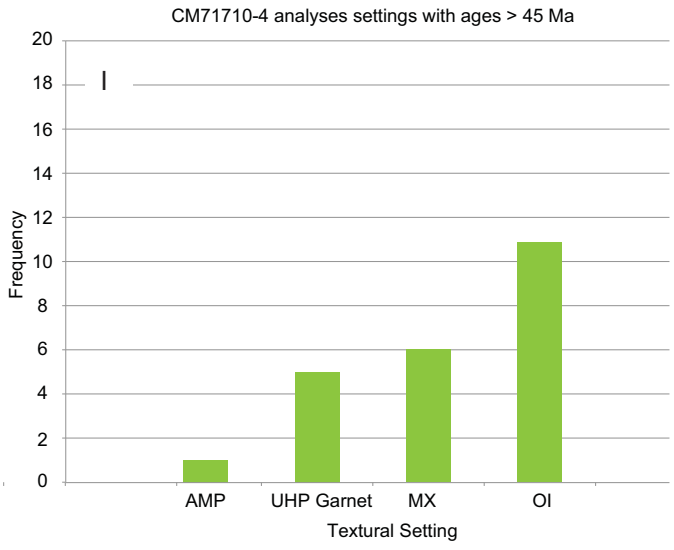


Supplementary Figure DR4 Age of Textural Settings. (A)Tera-Wasserburg Concordia plot of the U/Pb in CM71710-4 zircons included in UHP garnet; (B) garnet inclusions in omphacite; (C) CM71710-4 zircons in the matrix; (D) DD71710-2B zircons included in omphacite; (E) CM71710-4 zircons in the matrix; All analyses are uncorrected for common Pb. For each sample, lower and upper intercept ages of best-fit lines through all data are noted in the upper right.

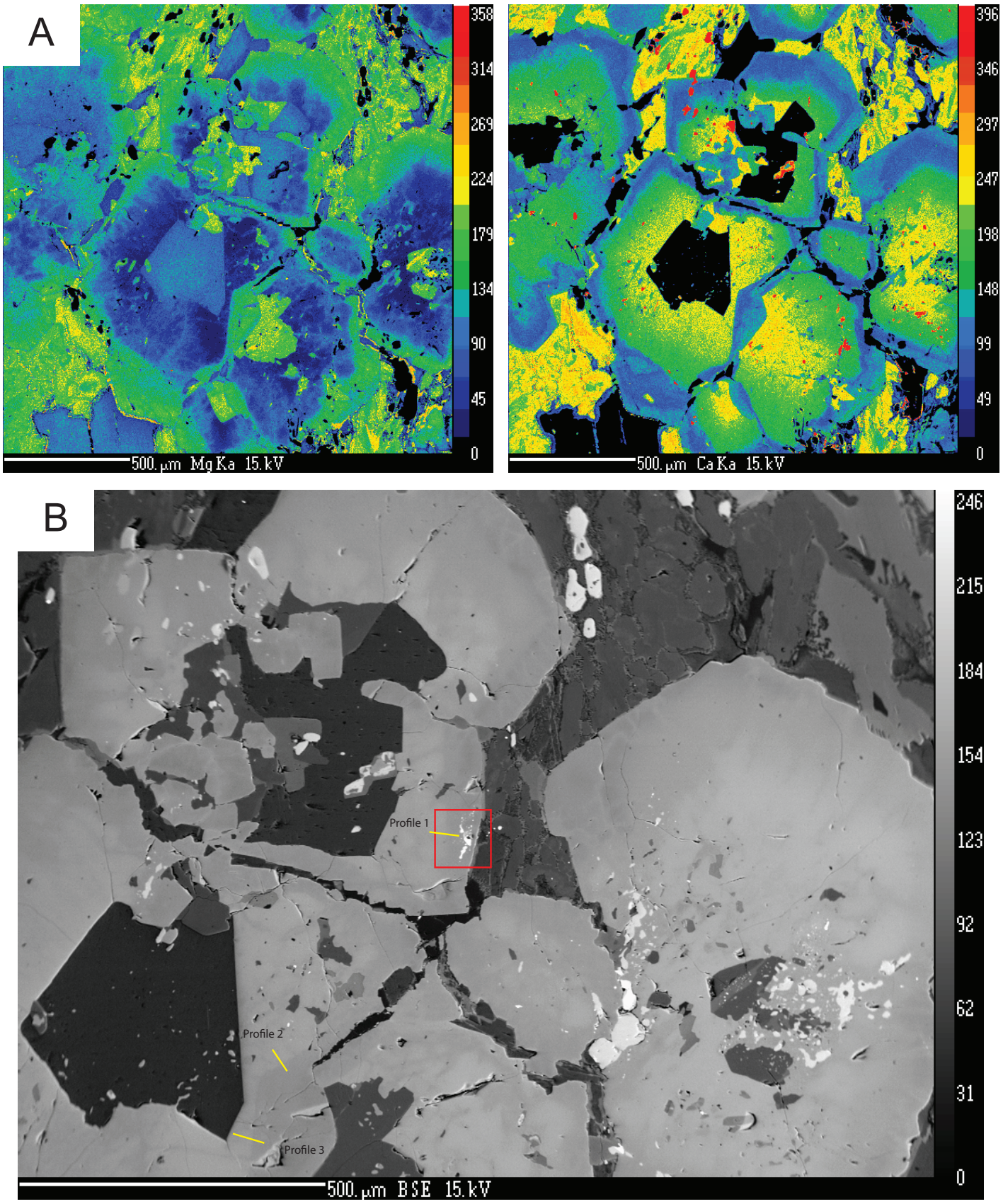




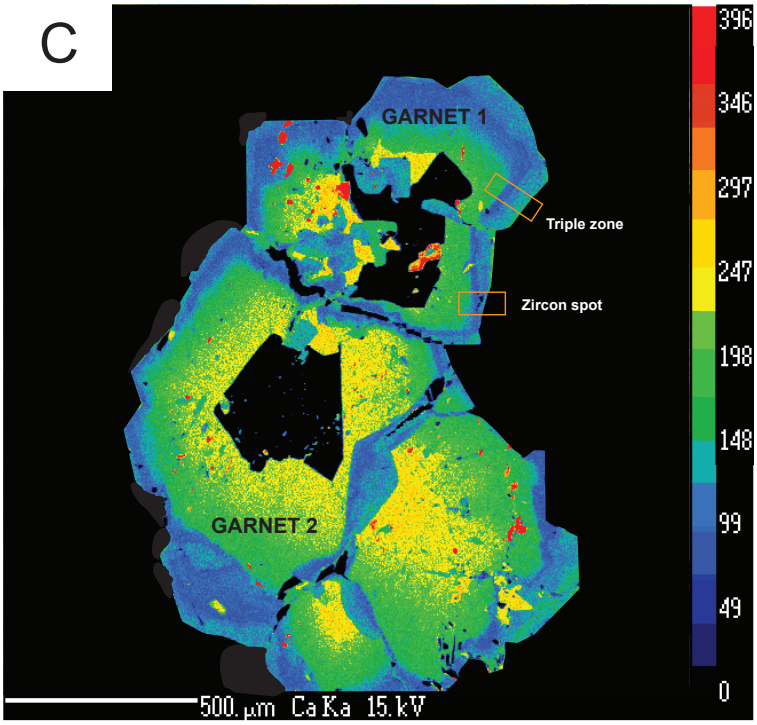


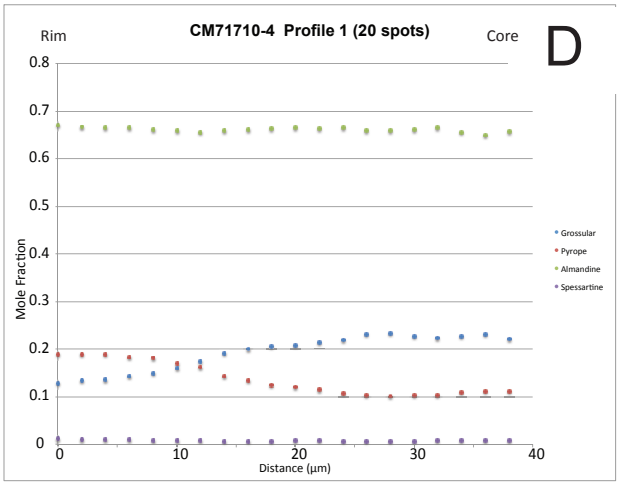


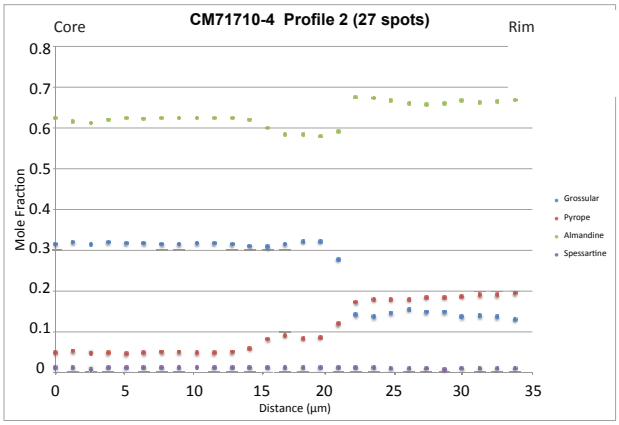
Supplementary Figure DR4 continued. Age vs. Petrologic Setting. F) Petrologic settings of analysed zircons from DD71710-2b with ages > 45 Ma. UHP garnet = zircon included in UHP garnet; OI = zircon included in omphacite; MX = matrix zircon. G) Petrologic settings of analysed zircons from DD71710-2b with ages < 45 Ma. AMP = zircon included in amphibole. H) Petrologic settings of analysed zircons from CM71710-4 with ages < 45 Ma I) Petrologic settings of analysed zircons from CM71710-4 with ages > 45 Ma.

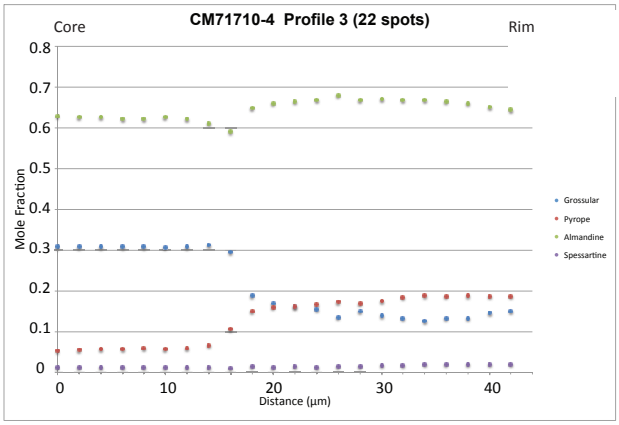


Supplementary Figure DR5









Supplementary Figure DR5. A. Color compositional X-ray maps of garnets in sample CM71710-4 reveal a strong zonation across a sharp boundary. The garnet composition is Ca-rich/Mg-poor on the core side of this boundary, while the rim side is Mg-rich/Ca-poor. B). Backscattered image of garnets from CM71710-4. The red square surrounds zircon analysis 9 (see Supplementary Table DR1), which yields 207 Pb-corrected U/Pb age of 44.4±1.8 Ma. Profiles are marked in yellow. zzC) Masked Ca-X-ray map shown in A. Garnet I shows a distinct growth history with the calcium composition decreasing and subsequently increasing from core to rim. Zircon analysis 9 was taken in rim of the garnet with lowest calcium composition. In Garnet II, the sharp boundary signaling the strong difference in calcium composition is shown. D) Compositional zoning in these garnets is given with three profiles. Profile 1 shows a gradual increase in Ca composition and decrease in Mg composition from rim to core. Profile 2 shows a sharp decrease of Ca from core to rim. The Mg composition increases strongly coincidently with the decrease of Ca composition. Profile 3 shows a similar pattern to Profile 2. Profi¬les 2 and 3 agree with data and observations from Tso Morari garnet analyzed in Konrad-Schmolke et al., 2008.

Supplementary Table DR1. Summary of LA-ICPMS analysis of U-Pb isotopes in zircon from eclogite CM71710-4 and DD71710-2b in the Tso Morari Gneiss Dome

	Zircon	Analysis Spot	Texture	Elements (ppm)			Isotopic Ratios					Apparent Age			
				U	Th	Pb	$^{232}Th/^{238}U$	$^{238}U/^{206}Pb$	±2σ error	$^{207}Pb/^{206}Pb$	±2σ error	$^{206}Pb/^{238}U$ [a]	±2σ error	$^{207}Pb/^{235}U$	±2σ error
CM71710-4	1		GR	46	2.0	1.8	0.043	117.8	7.29	0.240	0.020	41.2	2.1	250	24.0
	2		OI	28	0.0	0.3	0.000	151	11.5	0.145	0.018	37.3	2.3	119	42.0
	3		GR	79	0.4	0.5	0.005	126.4	7.0	0.081	0.007	48.6	1	86	69.0
	4		MX	22	3.8	4.4	0.174	60	9.79	0.565	0.068	37.0	11.0	830.0	19.0
	5		MX	32	0.0	3.9	0.000	70	5.02	0.407	0.029	49.9	4.2	595.0	87.0
	6		MX	18	1.4	2.3	0.077	90.3	6.08	0.401	0.061	39.3	6	486	39.0
	7		MX	12	1.4	2.0	0.122	97.1	9.37	0.383	0.074	38.1	6.9	439	19.0
	8		MX	24	1.9	3.7	0.078	65.8	4.59	0.439	0.039	49.2	5.4	677	42.0
	9		GR	25	0.2	0.4	0.008	128.4	7.91	0.136	0.014	44.4	1.8	134	39.0
	10		OI	80	5.1	9.8	0.064	109	6.62	0.215	0.023	46.5	2	236	15.0
	11		AMP	57	n/a	7.1	n/a	105	6.60	0.245	0.020	45.7	2.3	294	6.4
	12		MX	94	8.9	19.8	0.095	107	7.17	0.339	0.033	38.0	3.0	372	15.0
	13		OI	78	14.4	21.7	0.184	86.3	7.06	0.368	0.040	44.2	4.7	465	5
	14		GR	47	1.0	7.0	0.021	87.2	8.50	0.283	0.028	51.7	5	378	42.0
	15		OI	82	5.8	30.4	0.070	74.6	7.65	0.387	0.036	49.1	5.9	565	100.0
	16		GR	35	n/a	0.5	n/a	119	9.16	0.137	0.028	47.8	3.4	140	34.0
	17		OI	29	2.0	6.0	0.069	83.3	8.70	0.318	0.036	50.7	5.8	426	47.0
	18		MX	63	18.4	14.0	0.293	89.3	9.84	0.385	0.041	41.2	5.5	488	11.0
	19		GR	45	4.9	15.1	0.109	74.5	5.97	0.438	0.032	43.6	4.5	602	43.0
	20		MX	54	6.2	8.2	0.114	94.1	7.43	0.264	0.030	49.5	4	330	33.0
	21		OI	29	0.2	2.9	0.007	95.1	6.62	0.252	0.029	50.0	3.5	322	45.0
	22		OI	62	8.0	9.2	0.129	99.5	8.13	0.272	0.031	46.2	3.9	325	71.0
	23		MX	48	4.7	11.3	0.099	87.1	6.03	0.370	0.030	43.6	3.6	480	60.0
	24		MX	144	2.3	4.1	0.016	124	7.23	0.123	0.013	46.7	2	131	54.0
	25		OI	80	1.4	15.7	0.018	92.1	6.43	0.347	0.026	43.3	3.1	431	29.0
	26		GR	27	1.1	19.6	0.041	45.2	5.22	0.606	0.048	41.6	9.8	1084	22.0
	27		OI	76	26.3	7.7	0.346	104	6.54	0.223	0.020	47.8	2.4	265	21.0
	28		GR	122	4.2	5.3	0.034	113	6.55	0.142	0.011	50.0	2	160	44.0
	29		MX	115	1.4	1.2	0.012	134	7.52	0.096	0.008	45.0	1.2	94.5	19.0
	30		OI	27	3.4	2.4	0.125	97.0	8.72	0.326	0.044	42.9	4.9	353	11.0
	31	a	GR	34	1.1	7.2	0.032	82.6	7.24	0.390	0.031	44.0	4.4	506	49
	31	b	GR	32	0.9	0.4	0.028	119	9.31	0.197	0.033	43.6	3	206	22.0
	31	c	GR	49	3.8	15.7	0.078	69.9	5.69	0.379	0.031	53.3	5.0	566	39.0
	32		OI	170	0.6	2.9	0.004	147	9.79	0.118	0.021	39.8	2.1	105	91.0
	33		GR	73	2.2	14.6	0.030	91.8	7.54	0.342	0.036	43.9	4.3	400	37.0
	34	a	GR	89	3.4	8.4	0.038	109.1	11.7	0.278	0.040	41.7	5	330	34.0
	34	b	GR	40	n/a	0.5	n/a	124	8.32	0.163	0.021	44.2	2.4	166	38.0
	35		MX	57	n/a	53.6	n/a	44.8	3.29	0.579	0.036	46.9	7.3	1036	44.0
	36		MX	49	3.4	12.6	0.069	96.0	7.04	0.385	0.043	38.3	4.2	453	73.0
	37		OI	24	n/a	11.7	n/a	66.7	10.3	0.465	0.046	45.4	9	684	37.0
	38		OI	91	n/a	33.4	n/a	78.2	5.84	0.403	0.028	45.2	3.9	535	49.0
	39		GR	279	5.7	8.3	0.020	135	7.17	0.105	0.009	44.0	.9	104	53.0
	40		OI	75	3.8	15.6	0.050	94.1	6.05	0.287	0.019	47.6	2.6	357	7.1
	41	a	OI	116	1.9	28.6	0.016	91.5	5.39	0.317	0.020	46.2	2	400	20.0
	41	b	OI	46	n/a	7.0	n/a	96.1	6.85	0.294	0.029	46.0	3.4	367	21.0
	42		OI	36	2.1	10.1	0.059	85.9	5.30	0.408	0.029	40.7	3.2	516	36.0
	43		OI	41	0.6	4.3	0.015	109	7.19	0.270	0.024	42.2	2.6	294	23.0

Cont.

Table DR1 Cont.

DD71710-2b	44		OI	74	4.8	3.2	0.065	112	7.54	0.246	0.022	42.2	2.5	269	27.0
	45		MX	20	n/a	5.1	n/a	48	3.14	0.543	0.036	46.1	6.7	955	38.0
	46		MX	22	0.4	8.5	0.018	38.5	2.62	0.633	0.036	38.1	8.5	1197	30.0
	47		MX	51	3.0	8.5	0.059	62.1	4.75	0.496	0.030	42.2	4.9	765	48.0
	48		MX	33	0.4	2.1	0.012	93.8	6.25	0.278	0.020	47.6	2.8	343	21.0
	49		OI	25	1.5	1.6	0.060	98.4	5.67	0.287	0.021	44.6	2.3	345	16.0
	50		OI	61	1.5	1.5	0.025	128.2	8.09	0.165	0.013	42.3	1.8	165	12.0
	51		OI	151	7.2	0.3	0.048	148	8.12	0.054	0.005	42.9	1.0	50	4.0
	52		OI	33	0.7	2.6	0.021	95.0	6.07	0.344	0.028	41.2	3.0	411	29.0
	53		OI	30	0.1	2.4	0.003	94	6.53	0.354	0.028	40.6	3.2	415	22.0
	54		OI	42	0.5	3.0	0.012	91	7.50	0.315	0.031	45.4	4.1	387	28.0
	55		OI	27	0.6	4.7	0.022	61	4.5	0.478	0.035	45.4	5.5	725	48.0
	56		GR	18	0.1	1.3	0.006	93	7.1	0.289	0.028	47.1	3.7	361	33.0
	57		OI	40	n/a	2.6	n/a	103	7.12	0.302	0.030	41.3	3.2	344	29.0
	58		MX	76	4.0	4.6	0.053	108.8	7.21	0.312	0.021	38.4	2.4	337	19.0
	59		OI	29	0.5	2.5	0.017	77.8	5.49	0.324	0.028	52.4	4.1	476	38.0
	60		MX	60	3.2	0.5	0.053	137.2	8.01	0.097	0.009	43.7	1.4	92	6.0
	61		MX	38	2.2	4.1	0.057	81.2	6.25	0.432	0.038	39.0	4.6	558.0	42.0
	62		MX	11	0.8	3.9	0.071	57.1	5.67	0.555	0.063	37.2	10.0	850	77.0
	63		MX	42	0.8	0.3	0.019	128.4	8.10	0.092	0.010	47.1	1.9	96	10.0
	64		MX	17	0.2	0.2	0.012	135.0	10.34	0.135	0.036	42.1	3.3	126	32.0
	65		OI	78	7.3	5.2	0.094	121	7.46	0.127	0.014	47.6	2.0	137	15.0
	66		OI	73	3.6	26.8	0.050	74.6	6.16	0.401	0.029	45.9	4.5	541	36.0
	67		OI	58	6.5	31.4	0.112	62.2	3.83	0.467	0.028	46.2	4.3	708	26.0
	68		MX	46	9.5	17.2	0.207	75.5	4.66	0.400	0.024	45.5	3.2	545	21.0
	69		OI	36	0.7	4.5	0.020	96.0	7.74	0.225	0.023	51.2	3.8	287	27.0
	70		OI	36	6.6	24.8	0.185	49.3	4.60	0.554	0.036	43.3	7	936	68.0
	71		MX	119	3.1	18.7	0.026	103.8	7.18	0.271	0.022	43.6	2.8	311	27.0
	72		OI	47	n/a	19.7	n/a	71.2	4.85	0.464	0.035	40.6	4.6	628	35.0
	73		MX	34	n/a	8.1	n/a	85.3	5.99	0.331	0.027	47.1	3.6	414	27.0
	74		MX	103	5.1	2.5	0.049	142	8.34	0.101	0.013	42.1	1.5	98.0	13.0
	75		MX	54	17.2	16.2	0.321	84.6	5.49	0.326	0.023	48.0	3.1	425	24.0
	76		OI	65	4.1	9.7	0.063	102	8.71	0.302	0.040	41.8	4.4	342	49.0
	77		MX	52	0.6	39.7	0.012	50.8	3.62	0.522	0.031	47.3	5.8	898	36.0
	78		MX	23	n/a	14.2	n/a	63.3	6.09	0.473	0.043	44.5	6.9	740	64.0
	79		MX	125	18.4	76.3	0.148	59.1	4.44	0.482	0.031	46.4	5.2	764	48.0
	80		OI	114	10.2	21.8	0.089	101	7.50	0.281	0.023	44.2	3.1	335	31.0
	81		AMP	465	22.4	23.0	0.048	144	8.61	0.137	0.015	39.4	1.6	123	11.0
	82		OI	145	8.7	33.2	0.060	88.5	9.00	0.310	0.033	47.4	5.3	400	57.0
	83		OI	101	10.3	12.7	0.102	115	6.95	0.219	0.018	43.0	2.0	239	16.0
	84		OI	34	2.6	27.7	0.077	51.8	3.93	0.552	0.036	41.5	6.5	917	44.0
	85		OI	57	2.8	60.1	0.049	39.2	5.15	0.628	0.044	38.4	11	1180	110
	86		OI	109	6.5	12.7	0.060	108	7.58	0.232	0.028	44.8	3.1	261	35.0
	87		AMP	78	2.6	16.6	0.033	88.5	11.1	0.362	0.053	42.5	7.1	463	87.0
	88		MX	129	5.7	24.1	0.044	97.2	5.99	0.279	0.020	45.9	2.4	342	22.0
	89		OI	62	n/a	57.0	n/a	41.3	6.00	0.620	0.057	38.1	13	1110	150
	90		OI	70	0.0	28.9	n/a	70.1	4.71	0.399	0.027	49.1	4.0	585	31.0
	91	a	OI	49	3.7	15.6	0.075	79.7	5.60	0.362	0.028	47.2	3.8	478	33.0
	91	b	OI	118	7.1	15.7	0.060	99.1	8.48	0.263	0.031	46.4	4.2	324	45.0
	92		MX	35	5.4	18.7	0.156	62.1	5.26	0.482	0.035	44.1	5.7	723	54.0
	93		MX	104	24.9	28.7	0.240	94.1	6.34	0.336	0.030	42.3	3.3	410	32.0
	94		OI	23	2.8	0.6	0.122	126	13.8	0.193	0.041	41.0	4.8	166	30.0
	95		OI	54	6.0	20.7	0.110	72.2	5.55	0.404	0.028	47.1	4.4	578	40.0
	96		OI	72	1.2	75.2	0.017	42.0	3.52	0.596	0.037	42.3	8.3	1089	50.0
	97		OI	55	6.1	20.7	0.112	74.5	4.92	0.394	0.026	46.8	3.7	550	28.0
	98		MX	71	1.1	35.6	0.016	66.8	5.02	0.471	0.033	42.5	4.9	672	45.0
	99		MX	77	4.6	16.8	0.060	103	6.54	0.326	0.025	39.5	2.6	366	20.0
	100		OI	155	8.5	10.7	0.055	117	8.17	0.142	0.018	48.1	2.7	160	20.0
	101		OI	40	0.1	38.9	0.002	44.2	4.16	0.579	0.040	43.4	9	1040	61.0
	102		OI	101	15.0	6.3	0.149	129	7.78	0.163	0.019	42.1	1.9	160	16.0
	103		OI	37	0.9	24.9	0.025	55.6	4.39	0.548	0.036	39.3	6.2	852	53.0

Note:Both samples were analyzed 09/01/2011 and 02/17/2012, for which the error in standard deviation is (2σ). Common Pb is corrected by projecting a line through all analyses to 207Pb/206Pb and 238U/206Pb on the Tera-WasseMXurg Concordia diagram (Figure 2). a Age corrected for 207 Pb. AMP (amphibole- zircon inclusion in amphibole grain), GR (zircon inclusion in UHP garnet), MX (zircon in the matrix near omphacite, rutile, titanite, amphibole other matrix minerals), OI (zircon inclusion in omphacite grains),.

Supplementary Table DR2

Laser ablation single-collector inductively coupled plasma mass spectrometry analyses of rare earth elements in zircon.

Sample	Zircon	Analysis Spot	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
	10		0.173	5.87	0.77	1.72	22	36	94.2	109.7	146.2	173.4	275	335	551	776
	11		n/a	0.43	0.21	0.80	12	25	48.4	41.8	38.4	36.2	43.2	38.1	58.6	65.0
	12		0.007	2.50	0.44	0.37	10	46	68.5	36.7	32.4	24.9	42.8	53.6	98.5	159
	13		0.030	1.11	0.20	1.30	6.5	14	51.1	40.5	58.6	90.2	240	352	537	714
	14		0.147	5.81	1.42	2.97	5.5	13	20.1	19.6	23.3	21.2	29.0	26.8	48.0	54.9
	15		0.214	7.35	2.85	7.39	42	42	62.2	50.3	47.4	41.8	47.7	69.2	75.4	95.8
	16		0.029	0.58	0.57	n/a	8.6	23	56.7	52.7	86.2	91.2	121	134	154	156
	17		0.054	0.58	0.45	0.35	6.4	20	33.6	40.7	49.2	59.4	79.2	76.8	83.6	101
	18		0.050	0.95	0.63	0.35	7.0	17	20.8	33.2	27.9	26.8	37.4	41.4	51.5	76.2
	19		0.041	0.69	0.19	0.46	10	18	27.3	30.4	54.1	82.6	111	130	211	247
	20		0.009	3.39	0.41	1.04	17	22	84.4	135	237	374	710	1226	2394	2926
	21		0.050	0.24	0.17	0.19	1.6	6.2	14.3	15.1	16.4	14.0	15.4	15.8	16.6	26.5
	22		0.010	1.00	0.20	0.81	4.7	16	49.2	44.2	64.3	117.6	242	384	731	1099
	23		0.014	0.61	0.22	1.01	9.4	26	37.6	41.6	34.6	41.5	47.9	70.8	65.6	78.3
	24		0.038	1.40	n/a	0.61	13	42	75.5	66.9	64.8	68.1	70.7	67.0	80.4	61.9
	25		n/a	1.49	0.41	0.74	4.1	24	42.9	27.3	34.7	29.8	34.5	33.8	38.0	34.5
	26		0.031	0.35	0.38	0.42	4.9	12	20.0	22.3	24.4	31.4	33.4	34.7	38.9	49.1
	27		0.059	0.82	0.35	0.84	4.1	13	22.1	18.4	11.6	19.2	30.9	46.9	81.9	130
	28		0.003	0.60	0.36	0.62	6.9	16	31.1	47.9	70.1	116	229	300	379	428
	29		0.043	1.40	0.77	0.90	19	57	82.3	75.7	62.0	64.3	97.7	134	173	171
	30		0.021	1.61	0.35	0.73	10	24	40.5	43.7	37.3	37.3	49.8	42.6	48.3	50.3
	31	a	0.039	0.58	0.19	0.56	6.4	27	51.6	48.6	60.7	69.8	92.2	92.0	108	117
	31	b	0.061	2.12	0.32	n/a	4.1	14	25.3	28.9	39.8	49.8	60.1	58.6	61.9	74.7
	31	c	0.025	0.33	0.12	0.39	4.5	21	46.9	52.5	37.6	34.1	28.4	37.0	30.3	37.3
	32		0.031	0.22	0.14	0.47	4.1	12	20.1	19.5	18.4	17.7	24.1	24.8	28.3	36.2
	33		n/a	1.43	0.65	0.90	13	53	92.9	68.6	54.1	45.0	54.4	50.2	47.3	51.9
	34	a	0.049	0.43	0.17	0.69	5.7	16	34.6	27.4	29.3	32.1	88.6	176	304	537
	34	b	0.003	0.98	0.27	1.04	16	35	63.6	59.2	43.8	45.6	61.1	76.6	172	240
	35		n/a	0.75	0.08	0.60	6.9	24	43.3	54.2	70.8	89.3	107	110	158	173
	36		0.003	1.00	0.18	0.50	5.0	20	42.0	40.0	56.2	65.5	82.9	67.8	68.1	67.8
	37		n/a	0.39	0.37	0.29	4.8	13	20.0	24.7	20.6	13.3	25.4	22.6	24.2	30.9
	38		0.030	0.34	0.12	0.01	.6	7.9	15.3	8.23	10.0	10.5	15.8	13.8	21.9	33.6
	39		n/a	1.02	0.14	0.54	11	35	49.7	43.3	43.9	44.3	50.4	52.0	59.2	66.7
	40		0.045	2.20	n/a	0.73	21	57	108	77.0	52.5	35.3	34.2	34.4	38.0	44.0
	41	a	0.081	0.71	0.09	0.17	10	34	55.9	50.5	42.4	35.9	37.7	43.8	44.3	63.6
	41	b	0.020	0.64	0.13	0.18	13	42	56.9	49.8	35.4	33.3	38.9	36.2	44.0	49.6
	42		n/a	0.75	0.17	0.46	7.5	18	29.8	27.9	26.0	32.0	30.8	26.0	39.8	42.1
	43		0.014	0.45	0.10	0.98	4.4	11	15.9	22.0	20.2	21.7	25.0	24.1	36.2	43.2

TABLE DR2 cont.

Sample	Analysis		La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
DD71710-2b																
	65		0.004	0.725	0.075	0.216	7.40	16.7	22.3	35.1	33.3	38.4	37.6	43.4	39.9	49.4
	66		n/a	1.277	0.766	1.748	7.25	18.7	28.7	45.0	32.5	36.2	38.7	53.9	55.9	61.1
	67		0.011	1.164	n/a	0.320	5.92	17.5	18.6	29.8	24.5	28.1	29.1	37.1	35.2	43.3
	68		0.037	0.685	0.315	1.176	9.70	21.6	29.5	43.7	36.1	42.8	60.5	55.1	78.3	121
	69		0.021	0.833	0.159	n/a	7.52	11.5	26.5	34.6	33.5	36.3	37.1	40.5	39.3	61.0
	70		0.247	17.654	2.800	6.766	9.68	13.1	18.8	49.5	43.3	56.1	59.5	100	127	177
	71		0.051	1.748	0.145	0.867	9.43	30.2	43.9	56.3	38.1	41.1	34.9	37.5	33.6	60.2
	72		0.013	1.067	n/a	0.811	7.30	38.4	51.5	46.4	31.4	37.4	27.1	32.5	29.4	50.4
	73		0.016	0.813	0.112	0.316	11.0	39.6	51.7	59.6	54.5	47.8	47.2	36.6	48.9	62.0
	74		0.040	1.551	0.234	0.614	11.4	47.1	67.8	81.5	65.2	42.8	47.5	48.9	54.6	65.9
	75		0.029	1.394	0.211	0.924	6.50	15.8	27.6	36.8	43.1	60.7	89.6	118	171	232
	76		0.047	0.466	0.186	0.492	2.45	8.65	25.6	29.3	26.7	25.6	22.2	32.9	28.5	41.9
	77		0.027	0.698	0.180	0.331	3.63	6.59	11.0	20.3	19.8	18.8	21.9	19.8	17.6	36.6
	78		0.025	0.421	0.226	n/a	4.27	15.0	36.1	43.3	32.7	35.3	31.7	39.0	33.5	45.9
	79		0.050	3.687	0.734	1.705	14.8	48.3	80.2	112	106	170	175	242	323	450
	80		0.033	2.613	0.637	2.446	10.7	36.9	46.9	63.5	54.9	70.1	61.5	85.4	78.7	100
	81		0.025	2.629	0.144	0.422	9.92	44.5	88.6	101	82.6	88.5	73.3	73.5	61.0	91.0
	82		0.006	1.603	0.105	n/a	5.62	32.2	54.3	60.2	43.5	41.4	46.5	49.6	51.1	59.8
	83		0.004	2.412	n/a	0.263	14.5	62.9	73.4	80.5	58.4	58.3	53.2	51.2	42.2	83.2
	84		n/a	0.235	0.310	0.673	4.81	13.7	23.7	26.7	21.9	25.2	29.4	30.4	33.5	46.2
	85		n/a	0.941	0.106	0.433	6.40	10.3	24.8	28.6	30.1	33.4	27.3	26.4	33.3	42.5
	86		n/a	0.835	0.135	0.386	5.44	25.2	38.4	52.2	55.9	61.3	75.0	85.6	90.2	144
	87		0.090	1.841	0.262	2.169	8.24	21.2	37.6	37.3	30.4	22.7	29.6	33.9	21.3	77.8
	88		0.009	0.987	0.205	0.544	8.91	24.7	34.2	50.7	53.9	56.2	68.4	80.9	116	209
	89		n/a	1.066	0.343	n/a	1.55	19.9	29.4	39.6	28.4	27.3	32.9	54.9	54.4	62.3
	90		0.060	0.548	0.223	0.626	4.07	18.0	29.8	40.9	38.5	31.2	38.2	37.5	47.5	54.9
	91	a	0.014	1.405	0.337	0.837	7.88	26.3	38.0	38.9	27.2	22.3	28.2	41.4	41.1	61.2
	91	b	0.058	1.390	n/a	0.319	4.82	35.2	39.4	42.9	35.9	21.6	30.7	52.8	44.8	61.1
	92		0.024	0.154	0.277	0.357	1.05	6.75	14.3	18.1	12.2	16.6	24.2	21.3	40.6	53.3
	93		0.049	1.469	0.472	0.857	6.88	15.4	24.0	26.1	32.2	37.6	54.3	54.8	116	147
	94		0.041	0.160	0.150	0.305	3.04	45.9	68.3	76.9	69.2	50.6	59.9	50.8	56.5	61.2
	95		0.037	0.507	0.172	0.350	2.35	9.58	22.2	25.1	25.6	23.6	26.9	40.3	48.5	68.2
	96		0.000	0.317	0.259	0.460	2.05	20.7	23.5	27.9	17.4	22.2	23.8	36.1	32.4	44.5
	97		0.027	1.262	0.337	0.625	3.86	25.5	32.9	36.8	31.1	35.2	41.4	45.3	60.1	93.9
	98		0.060	1.330	0.419	0.753	4.22	25.7	30.5	30.2	26.9	20.7	24.6	24.6	25.4	27.2
	99		0.033	0.970	0.445	0.709	7.61	21.9	22.6	34.8	26.7	22.1	27.2	24.5	26.0	45.7
	100		0.034	1.385	0.127	0.318	6.40	35.8	53.1	66.9	59.0	54.6	51.2	46.2	48.4	57.3
	101		0.023	0.371	0.094	0.364	6.50	17.8	30.8	39.6	31.7	37.7	39.9	35.7	41.8	84.0
	102		0.039	1.471	0.304	0.837	4.37	23.4	32.9	41.0	43.7	51.7	76.8	106	125	153
	103		0.018	0.489	0.187	0.571	6.01	39.0	54.9	62.6	61.3	69.6	73.7	66.9	69.1	94.4

Note: Both samples were analyzed *in situ* 09/01/2011 and 02/17/2012. Analyses that were tripped by the detector or showed anamolously high abundances were excluded from the data. Those analyses were assumed to have experienced analytical error or exceeded the detection limits set by standards calibration. Analyses recorded under detection level are denoted n/a.

Table DR3. Timing of Collision Calculation Table. The collision table uses a simplified equation modified from Leech et al., 2005 to predict timing of collision as a function of UHPM depth, age of UHPM, convergence rate and slap dip. It is an example of possible collision ages considering new realistic convergence rates and subduction geometries. 100 km is the assumed depth of UHPM. The convergence rates used are bracketed convergence rates using the fastest and slowest convergence rates between 52 Ma and 46 Ma from White and Lister (2012). The age of UHPM is the interpreted age reported in this study. The slab dip is the angle of the subducting plate with the horizontal. Values are first order approximations of 28° (Guillot et al., 2004), 35° medium value, and 41° (Leech et al., 2005). Slab dip is assumed to be constant for each value. The dip geometries from Leech et al., (2005) assumes the slab dip angle inscreases with depth; a realistic assumption that has a slab dip angle of 41° at UHP conditions. Initial subduction of the leading edge of the Indian Continental Margin ~51-47 Ma is under the assumption that UHP metamorphsim is a geologically brief event.

$$\text{Timing of Collision} = \frac{\text{Depth of UHPM}}{(\text{Convergence Rate} \times \text{Sin}(\text{Slap Dip}))} + \text{Age of UHPM}$$

Depth of UHPM	Convergence Rate	Slab Dip	Collision Age (UHP at 46 Ma)	Collision Age (UHP at 47 Ma)
100	69	28	49.1	50.1
100	69	35	48.5	49.5
100	69	41	48.2	49.2
100	150	28	47.4	48.4
100	150	35	47.2	48.2
100	150	41	47.0	48.0

White and Lister 2012: Convergence limits of 69mm/yr and 150mm/yr

Calculated collision ages provide minimum estimates for continental subduction timing, since the perserved UHP material may not represent the absolute leading edge of the subducting continent. The initiation of continental subduction corresponds to the timing of India-Asia collision under the assumption that the overriding plate was Asia (and not an island arc or microcontinent).

Supplementary References

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Table DR4. Selected electron microprobe analyses of garnets in sample CM71710-4.

Formula	P2O5	SiO2	TiO2	Al2O3	Cr2O3	MgO	CaO	MnO	FeO	Na2O	Total	O=
6 / 1 .	0	38.6628	0.0047	21.8886	0.006	7.5451	5.1497	0.4562	26.7575	0.0111	100.4818	0
6 / 2 .	0.0135	38.756	0.0197	21.9188	0	7.5932	5.3802	0.433	26.8664	0.0124	100.9932	0
6 / 3 .	0	38.6824	0.0479	22.0802	0.0006	7.5882	5.4361	0.4423	26.8149	0.0028	101.0954	0
6 / 4 .	0.0131	38.7695	0.0116	21.9582	0.0055	7.3461	5.7719	0.3893	26.6923	0.0031	100.9606	0
6 / 5 .	0.0026	38.5629	0.0234	21.9453	0.0129	7.2686	5.9552	0.3688	26.5109	0.0074	100.6581	0
6 / 6 .	0.0115	38.5051	0.0302	21.8761	0.0106	6.8663	6.499	0.3515	26.6249	0.018	100.7932	0
6 / 7 .	0.0085	38.6068	0.0272	21.8706	0.0037	6.5329	7.0532	0.3435	26.4644	0.0133	100.9242	0
6 / 8 .	0.005	38.3513	0.0459	21.6646	0	5.8604	7.7553	0.2515	26.7284	0.0006	100.6631	0
6 / 9 .	0.0004	38.3307	0.0661	21.8534	0.0086	5.4568	8.1474	0.2345	26.9593	0.0147	101.072	0
6 / 10 .	0.0264	38.3307	0.0811	21.59	0.0061	5.0259	8.3454	0.2621	26.9268	0.0137	100.6083	0
6 / 11 .	0.0089	38.012	0.0746	21.5518	0.0156	4.8915	8.5307	0.3059	27.1304	0.0175	100.5388	0
6 / 12 .	0.0186	38.2268	0.1054	21.4728	0.013	4.7233	8.7744	0.3148	27.1345	0.0166	100.8002	0
6 / 13 .	0.0089	38.0372	0.0993	21.3742	0.0055	4.4397	9.0748	0.2796	27.4183	0.0132	100.7506	0
6 / 14 .	0	37.9382	0.1159	21.3521	0	4.2266	9.4625	0.2761	27.1146	0.0104	100.4963	0
6 / 15 .	0.0123	38.0928	0.0997	21.4023	0.0115	4.1623	9.6412	0.2831	27.1418	0.0154	100.8624	0
6 / 16 .	0	38.1341	0.1164	21.3278	0	4.2841	9.3738	0.3044	27.2539	0.0195	100.814	0
6 / 17 .	0.024	38.2446	0.0955	21.3849	0.0095	4.283	9.1863	0.3176	27.3696	0.0277	100.9426	0
6 / 18 .	0.0179	38.0101	0.1134	21.362	0.0139	4.453	9.3236	0.3323	26.8216	0.0107	100.4585	0
6 / 19 .	0.0073	38.1593	0.1105	21.2439	0.0191	4.5522	9.4999	0.3332	26.6312	0.0325	100.5892	0
6 / 20 .	0.0065	38.2327	0.1039	21.3429	0.0326	4.5831	9.0712	0.3732	26.9375	0.0291	100.7127	0
14 / 1 .	0.0279	36.761	0.1672	20.5936	0.0193	1.9542	12.9667	0.5558	25.6946	0	98.7403	0
14 / 2 .	0.0215	36.6323	0.1665	20.7073	0.0136	2.1634	13.0853	0.5247	25.2136	0.0172	98.5454	0
14 / 3 .	0.0175	36.96	0.1652	20.492	0.0176	2.1116	13.0662	0.5481	25.3559	0.0248	98.7589	0
14 / 4 .	0.0096	36.9412	0.1785	20.5141	0.0113	1.9648	13.0879	0.5304	25.4261	0.005	98.6689	0
14 / 5 .	0.0153	36.927	0.1329	20.6152	0.0098	1.9064	13.0106	0.5064	25.566	0	98.6897	0
14 / 6 .	0.026	36.7208	0.1452	20.6991	0.0159	2	13.0555	0.5366	25.5421	0.0107	98.7517	0
14 / 7 .	0.027	37.1857	0.1636	20.675	0.0121	2.0672	12.9802	0.5072	25.7456	0.0154	99.379	0
14 / 8 .	0.0113	36.9937	0.152	20.5902	0.0197	2.0366	12.8408	0.5025	25.3776	0.0132	98.5375	0
14 / 9 .	0.037	36.8665	0.1599	20.6281	0.0231	1.9644	13.0534	0.5277	25.6516	0.0097	98.9216	0
14 / 10 .	0.0204	36.5799	0.1778	20.5688	0.017	1.9492	12.9763	0.5115	25.5439	0.0141	98.359	0
14 / 11 .	0.0275	37.0037	0.1651	20.5374	0.0029	2.038	12.8965	0.5079	25.5814	0.0122	98.7726	0
14 / 12 .	0.0058	37.1217	0.1519	20.7204	0.0052	2.3827	12.7408	0.5064	25.3764	0.0247	99.0358	0
14 / 13 .	0.013	37.2007	0.1569	20.786	0.0162	3.3216	12.5996	0.4963	24.4471	0.0276	99.0651	0
14 / 14 .	0.0287	37.462	0.1734	20.8707	0.0009	3.6685	12.7723	0.4871	23.6456	0.0194	99.1286	0
14 / 15 .	0.0305	37.1259	0.1964	20.6694	0.0192	3.3778	13.1424	0.4968	23.8398	0.0167	98.9148	0
14 / 16 .	0.0201	37.2832	0.1582	20.8714	0.0154	3.5104	13.0652	0.5049	23.5114	0.0197	98.9598	0
14 / 17 .	0.0004	37.448	0.118	21.0469	0	4.8339	11.155	0.4747	23.8115	0.0206	98.9088	0
14 / 18 .	0.0297	37.7811	0.0306	21.3766	0.0126	6.9146	5.7092	0.5171	27.1722	0.014	99.5576	0
14 / 19 .	0.0263	37.7173	0.0347	21.3155	0.0214	7.2009	5.4757	0.4721	26.9375	0.0102	99.2116	0
14 / 20 .	0.0156	37.6462	0.0379	21.3823	0.0254	7.1489	5.8205	0.4468	26.6182	0.0315	99.1734	0
14 / 21 .	0.0048	37.7223	0.0194	21.4129	0.0152	7.1136	6.1546	0.3913	26.2995	0.0133	99.1468	0
14 / 22 .	0.015	37.8181	0.038	21.2888	0.0238	7.3658	5.9384	0.3811	26.2942	0.0077	99.1708	0
14 / 23 .	0	37.7081	0.0273	21.4763	0.0166	7.3814	5.8882	0.3611	26.4289	0.0012	99.2891	0
14 / 24 .	0.0124	37.9882	0.0351	21.4653	0.0252	7.4751	5.5057	0.4175	26.6461	0.0185	99.589	0
14 / 25 .	0.0193	37.6516	0.0481	21.4447	0.0163	7.5966	5.5411	0.3889	26.5354	0.0145	99.2566	0
14 / 26 .	0.0033	37.9707	0.0371	21.3699	0.0054	7.5619	5.4657	0.4044	26.4918	0.012	99.3221	0
14 / 27 .	0.0117	37.978	0.0294	21.4369	0.0117	7.7426	5.1783	0.3705	26.656	0.004	99.4192	0
15 / 1 .	0.007	36.6504	0.1749	20.5263	0.0205	2.1925	12.6354	0.4848	25.7929	0.0249	98.5095	0
15 / 2 .	0.0369	36.7356	0.1575	20.5199	0.0191	2.284	12.6533	0.5168	25.7382	0.0119	98.673	0
15 / 3 .	0.0365	36.823	0.1863	20.6177	0.0278	2.3022	12.5727	0.4691	25.618	0.0182	98.6714	0
15 / 4 .	0.0331	36.8299	0.1707	20.5192	0.0035	2.3499	12.543	0.4921	25.3503	0.0176	98.3091	0
15 / 5 .	0.0199	37.0828	0.1457	20.6733	0.0234	2.3975	12.6308	0.5112	25.4871	0.0254	98.9972	0
15 / 6 .	0.0258	36.8146	0.1596	20.5085	0.0153	2.3201	12.5368	0.4933	25.6807	0.0189	98.5735	0
15 / 7 .	0.0333	36.669	0.1472	20.672	0.022	2.3927	12.6565	0.4849	25.5643	0.0104	98.6522	0
15 / 8 .	0.029	37.0602	0.1661	20.7204	0.0162	2.6779	12.7957	0.4825	25.0766	0.0156	99.0403	0
15 / 9 .	0.0249	37.1657	0.127	20.8828	0.0035	4.2892	11.9367	0.4415	23.9244	0.0379	98.8337	0
15 / 10 .	0	37.5631	0.0658	21.1425	0	6.0143	7.5258	0.5555	25.996	0.0155	98.8786	0
15 / 11 .	0.013	37.5852	0.05	21.3447	0.0026	6.3408	6.736	0.5276	26.3311	0.0174	98.9483	0
15 / 12 .	0	37.4737	0.0606	21.269	0.0083	6.5029	6.4441	0.5548	26.621	0.018	98.9523	0
15 / 13 .	0.01	37.4674	0.0397	21.3104	0.0146	6.6377	6.1642	0.5334	26.7943	0.013	98.9846	0
15 / 14 .	0.0202	37.3552	0.0279	21.2034	0.0094	6.8948	5.4112	0.5567	27.1969	0.009	98.6846	0
15 / 15 .	0.0111	37.4401	0.0281	21.2254	0.0126	6.7131	5.9608	0.5929	26.7004	0.0174	98.7018	0
15 / 16 .	0.0033	37.5512	0.0358	21.249	0.0066	6.9987	5.6064	0.6364	26.8879	0.0261	99.0012	0
15 / 17 .	0.005	37.5004	0.0319	21.4659	0.0231	7.2755	5.2468	0.7003	26.6559	0.0164	98.9214	0
15 / 18 .	0	37.7941	0.0053	21.3097	0.0071	7.4653	4.9928	0.7455	26.6246	0.0139	98.9585	0
15 / 19 .	0.0207	37.6396	0.0424	21.4762	0.0074	7.4785	5.2896	0.7437	26.5229	0.0315	99.2526	0
15 / 20 .	0.028	37.8247	0.0411	21.4883	0.0295	7.5381	5.3405	0.7384	26.4441	0.0253	99.4981	0
15 / 21 .	0.0291	37.5859	0.0527	21.3248	0.0206	7.3694	5.7567	0.7731	25.8853	0.0074	98.8051	0
15 / 22 .	0.0224	37.6988	0.0643	21.4381	0.0123	7.3492	5.9462	0.7976	25.5634	0.0305	98.9228	0

Formula	Ca %	Mg %	Fe%	Mn%	X	Y	Z	Beam X	Beam Y	Comment	Distance (μ)	Mean Z	Point#	Date	Geo Specie
6 / 1 .	0.12903767	0.18905997	0.6704712	0.01143115	4681	-35294	195			cm71710-4-A9-1-20	3496.4	14.129	67	3/11/2013 17:12	Garnet (on the basis of 12 O)
6 / 2 .	0.13359389	0.18854413	0.66711031	0.01075167	4678.8	-35294	195			cm71710-4-A9-1-20	3494.28	14.2085	68	3/11/2013 17:17	Garnet (on the basis of 12 O)
6 / 3 .	0.13495277	0.18837928	0.66568772	0.01098023	4676.7	-35294	195			cm71710-4-A9-1-20	3492.16	14.2202	69	3/11/2013 17:20	Garnet (on the basis of 12 O)
6 / 4 .	0.14358103	0.18274062	0.66399417	0.00968418	4674.5	-35294	195			cm71710-4-A9-1-20	3490.04	14.2054	70	3/11/2013 17:24	Garnet (on the basis of 12 O)
6 / 5 .	0.14849577	0.18124603	0.661062	0.0091962	4672.4	-35294	195			cm71710-4-A9-1-20	3487.93	14.1624	71	3/11/2013 17:28	Garnet (on the basis of 12 O)
6 / 6 .	0.16109881	0.17020354	0.65998458	0.00871307	4670.2	-35294	195			cm71710-4-A9-1-20	3485.81	14.2212	72	3/11/2013 17:31	Garnet (on the basis of 12 O)
6 / 7 .	0.17461009	0.16172946	0.65515671	0.00850374	4668.1	-35294	195			cm71710-4-A9-1-20	3483.69	14.2492	73	3/11/2013 17:35	Garnet (on the basis of 12 O)
6 / 8 .	0.19103794	0.14436047	0.65840633	0.00619525	4665.9	-35294	195			cm71710-4-A9-1-20	3481.58	14.2837	74	3/11/2013 17:39	Garnet (on the basis of 12 O)
6 / 9 .	0.19970097	0.13375165	0.66079955	0.00574783	4663.7	-35294	195			cm71710-4-A9-1-20	3479.46	14.3791	75	3/11/2013 17:42	Garnet (on the basis of 12 O)
6 / 10 .	0.20575342	0.12391211	0.66387247	0.006462	4661.6	-35294	195			cm71710-4-A9-1-20	3477.34	14.3425	76	3/11/2013 17:46	Garnet (on the basis of 12 O)
6 / 11 .	0.20878642	0.11971805	0.66400871	0.00748681	4659.4	-35294	195			cm71710-4-A9-1-20	3475.22	14.3739	77	3/11/2013 17:49	Garnet (on the basis of 12 O)
6 / 12 .	0.21428676	0.11535155	0.6626737	0.00768799	4657.3	-35294	195			cm71710-4-A9-1-20	3473.11	14.4199	78	3/11/2013 17:53	Garnet (on the basis of 12 O)
6 / 13 .	0.22019586	0.10772729	0.66529248	0.00678437	4655.1	-35294	195			cm71710-4-A9-1-20	3470.99	14.4604	79	3/11/2013 17:57	Garnet (on the basis of 12 O)
6 / 14 .	0.23034435	0.10288755	0.66004703	0.00672106	4652.9	-35294	195			cm71710-4-A9-1-20	3468.87	14.4221	80	3/11/2013 18:01	Garnet (on the basis of 12 O)
6 / 15 .	0.23384851	0.10095711	0.65832775	0.00686663	4650.8	-35294	195			cm71710-4-A9-1-20	3466.76	14.4761	81	3/11/2013 18:04	Garnet (on the basis of 12 O)
6 / 16 .	0.22742999	0.10394214	0.66124242	0.00738545	4648.6	-35294	195			cm71710-4-A9-1-20	3464.64	14.4678	82	3/11/2013 18:08	Garnet (on the basis of 12 O)
6 / 17 .	0.22320411	0.10406619	0.66501282	0.00771689	4646.5	-35294	195			cm71710-4-A9-1-20	3462.52	14.4867	83	3/11/2013 18:12	Garnet (on the basis of 12 O)
6 / 18 .	0.22779101	0.10879418	0.65529617	0.00811864	4644.3	-35294	195			cm71710-4-A9-1-20	3460.41	14.3833	84	3/11/2013 18:15	Garnet (on the basis of 12 O)
6 / 19 .	0.23161167	0.1109846	0.64928017	0.00812356	4642.2	-35294	195			cm71710-4-A9-1-20	3458.29	14.3863	85	3/11/2013 18:19	Garnet (on the basis of 12 O)
6 / 20 .	0.22143781	0.11187843	0.65757354	0.00911022	4640	-35294	195			cm71710-4-A9-1-20	3456.17	14.4138	86	3/11/2013 18:23	Garnet (on the basis of 12 O)
14 / 1 .	0.31494512	0.0474651	0.62409008	0.0134997	4385	-35631	207			cm71710-4-A29b-1-27	3152.96	14.3196	364	3/12/2013 13:19	Garnet (on the basis of 12 O)
14 / 2 .	0.31925489	0.05278259	0.6151609	0.01280162	4385.5	-35633	207			cm71710-4-A29b-1-27	3153.28	14.2467	365	3/12/2013 13:23	Garnet (on the basis of 12 O)
14 / 3 .	0.31805325	0.05139989	0.61720519	0.01334167	4386.1	-35634.9	207			cm71710-4-A29b-1-27	3153.61	14.2878	366	3/12/2013 13:26	Garnet (on the basis of 12 O)
14 / 4 .	0.31914546	0.0479112	0.62000966	0.01293368	4386.6	-35636.9	207			cm71710-4-A29b-1-27	3153.94	14.2862	367	3/12/2013 13:30	Garnet (on the basis of 12 O)
14 / 5 .	0.31741377	0.04650959	0.62372223	0.01235441	4387.2	-35638.9	207			cm71710-4-A29b-1-27	3154.27	14.2945	368	3/12/2013 13:34	Garnet (on the basis of 12 O)
14 / 6 .	0.31738796	0.04862134	0.62094559	0.01304511	4387.7	-35640.8	207			cm71710-4-A29b-1-27	3154.6	14.305	369	3/12/2013 13:37	Garnet (on the basis of 12 O)
14 / 7 .	0.31428903	0.05005303	0.62337713	0.01228081	4388.2	-35642.8	207			cm71710-4-A29b-1-27	3154.94	14.3886	370	3/12/2013 13:41	Garnet (on the basis of 12 O)
14 / 8 .	0.31505367	0.04996872	0.62264859	0.01232902	4388.8	-35644.7	207			cm71710-4-A29b-1-27	3155.27	14.2482	371	3/12/2013 13:45	Garnet (on the basis of 12 O)
14 / 9 .	0.3168524	0.04768297	0.62265548	0.01280915	4389.3	-35646.7	207			cm71710-4-A29b-1-27	3155.61	14.3362	372	3/12/2013 13:49	Garnet (on the basis of 12 O)
14 / 10 .	0.31664263	0.04756362	0.62331232	0.01248142	4389.8	-35648.7	207			cm71710-4-A29b-1-27	3155.94	14.2579	373	3/12/2013 13:52	Garnet (on the basis of 12 O)
14 / 11 .	0.31436629	0.04967848	0.62357461	0.01238062	4390.4	-35650.6	207			cm71710-4-A29b-1-27	3156.28	14.2997	374	3/12/2013 13:56	Garnet (on the basis of 12 O)
14 / 12 .	0.31070348	0.05810571	0.6188415	0.01234932	4390.9	-35652.6	207			cm71710-4-A29b-1-27	3156.62	14.2937	375	3/12/2013 14:00	Garnet (on the basis of 12 O)
14 / 13 .	0.30832554	0.08128307	0.5982464	0.01214499	4391.5	-35654.5	207			cm71710-4-A29b-1-27	3156.96	14.1811	376	3/12/2013 14:03	Garnet (on the basis of 12 O)
14 / 14 .	0.31479414	0.09041616	0.58278433	0.01200537	4392	-35656.5	207			cm71710-4-A29b-1-27	3157.31	14.1056	377	3/12/2013 14:07	Garnet (on the basis of 12 O)
14 / 15 .	0.32166983	0.08267412	0.5834965	0.01215954	4392.5	-35658.5	207			cm71710-4-A29b-1-27	3157.65	14.1308	378	3/12/2013 14:11	Garnet (on the basis of 12 O)
14 / 16 .	0.32186717	0.08648031	0.57921408	0.01243844	4393.1	-35660.4	207			cm71710-4-A29b-1-27	3157.99	14.092	379	3/12/2013 14:14	Garnet (on the basis of 12 O)
14 / 17 .	0.27697014	0.12002205	0.59122137	0.01178644	4393.6	-35662.4	207			cm71710-4-A29b-1-27	3158.34	13.9974	380	3/12/2013 14:18	Garnet (on the basis of 12 O)
14 / 18 .	0.14162146	0.17152241	0.67402904	0.0128271	4394.2	-35664.4	207			cm71710-4-A29b-1-27	3158.69	14.1213	381	3/12/2013 14:22	Garnet (on the basis of 12 O)
14 / 19 .	0.13659813	0.17963539	0.67198936	0.01177712	4394.7	-35666.3	207			cm71710-4-A29b-1-27	3159.04	14.0395	382	3/12/2013 14:25	Garnet (on the basis of 12 O)
14 / 20 .	0.14538747	0.17856893	0.6648832	0.0111604	4395.2	-35668.3	207			cm71710-4-A29b-1-27	3159.39	14.0174	383	3/12/2013 14:29	Garnet (on the basis of 12 O)
14 / 21 .	0.15402287	0.17802247	0.65816212	0.00979254	4395.8	-35670.2	207			cm71710-4-A29b-1-27	3159.74	13.9907	384	3/12/2013 14:33	Garnet (on the basis of 12 O)
14 / 22 .	0.14853612	0.18423942	0.65769207	0.00953239	4396.3	-35672.2	207			cm71710-4-A29b-1-27	3160.09	13.9802	385	3/12/2013 14:36	Garnet (on the basis of 12 O)
14 / 23 .	0.14698599	0.18426045	0.65973949	0.00901407	4396.8	-35674.2	207			cm71710-4-A29b-1-27	3160.44	14.0005	386	3/12/2013 14:40	Garnet (on the basis of 12 O)
14 / 24 .	0.13748989	0.1866703	0.66541389	0.01042593	4397.4	-35676.1	207			cm71710-4-A29b-1-27	3160.8	14.0427	387	3/12/2013 14:44	Garnet (on the basis of 12 O)
14 / 25 .	0.13831311	0.18962109	0.66235834	0.00970745	4397.9	-35678.1	207			cm71710-4-A29b-1-27	3161.16	13.9931	388	3/12/2013 14:48	Garnet (on the basis of 12 O)
14 / 26 .	0.1369033	0.18940832	0.66355908	0.0101293	4398.5	-35680	207			cm71710-4-A29b-1-27	3161.51	13.9912	389	3/12/2013 14:51	Garnet (on the basis of 12 O)
14 / 27 .	0.12962796	0.19381987	0.66727747	0.0092747	4399	-35682	207			cm71710-4-A29b-1-27	3161.87	13.9993	390	3/12/2013 14:55	Garnet (on the basis of 12 O)
15 / 1 .	0.30738877	0.05333823	0.62747898	0.01179401	4329	-35777	207			cm71710-4-A29c-1-22	3084.86	14.2787	391	3/12/2013 14:59	Garnet (on the basis of 12 O)
15 / 2 .	0.30717634	0.05544726	0.62483037	0.01254603	4331	-35777.2	207			cm71710-4-A29c-1-22	3086.84	14.2933	392	3/12/2013 15:03	Garnet (on the basis of 12 O)
15 / 3 .	0.3069357	0.05620331	0.62540892	0.01145208	4333	-35777.5	207			cm71710-4-A29c-1-22	3088.82	14.2721	393	3/12/2013 15:07	Garnet (on the basis of 12 O)
15 / 4 .	0.30791476	0.05768707	0.62231774	0.01208043	4335	-35777.7	207			cm71710-4-A29c-1-22	3090.8	14.2008	394	3/12/2013 15:10	Garnet (on the basis of 12 O)
15 / 5 .	0.30786855	0.0584377	0.62123354	0.01246021	4337	-35778	207			cm71710-4-A29c-1-22	3092.78	14.2972	395	3/12/2013 15:14	Garnet (on the basis of 12 O)
15 / 6 .	0.30554533	0.05654519	0.62588683	0.01202265	4339	-35778.2	207			cm71710-4-A29c-1-22	3094.77	14.2666	396	3/12/2013 15:18	Garnet (on the basis of 12 O)
15 / 7 .	0.30795603	0.05821881	0.62202665	0.01179851	4341	-35778.4	207			cm71710-4-A29c-1-22	3096.75	14.2675	397	3/12/2013 15:21	Garnet (on the basis of 12 O)
15 / 8 .	0.31184153	0.06526258	0.61113697	0.01175891	4343	-35778.7	207			cm71710-4-A29c-1-22	3098.73	14.262	398	3/12/2013 15:25	Garnet (on the basis of 12 O)
15 / 9 .	0.29406678	0.10566666	0.58938998	0.01087658	4345	-35778.9	207			cm71710-4-A29c-1-22	3100.71	14.047	399	3/12/2013 15:29	Garnet (on the basis of 12 O)
15 / 10 .	0.18771513	0.15001397	0.64841513	0.01385577	4347	-35779.1	207			cm71710-4-A29c-1-22	3102.69	14.0262	400	3/12/2013 15:33	Garnet (on the basis of 12 O)
15 / 11 .	0.16867198	0.15877603	0.65934069	0.0132113	4349	-35779.4	207			cm71710-4-A29c-1-22	3104.68	14.0243	401	3/12/2013 15:36	Garnet (on the basis of 12 O)
15 / 12 .	0.16060943	0.16207493	0.66348809	0.01382755	4351	-35779.6	207			cm71710-4-A29c-1-22	3106.66	14.0435	402	3/12/2013 15:40	Garnet (on the basis of 12 O)
15 / 13 .	0.15360731	0.16540658	0.66769417	0.01329193	4353	-35779.9	207			cm71710-4-A29c-1-22	3108.64	14.0469	403	3/12/2013 15:44	Garnet (on the basis of 12 O)
15 / 14 .	0.13507873	0.17211355	0.67891092	0.01389679	4355	-35780.1	207			cm71710-4-A29c-1-22	3110.62	14.0166	404	3/12/2013 15:47	Garnet (on the basis of 12 O)
15 / 15 .	0.1491423	0.16796523	0.66805781	0.01483466	4357	-35780.3	207			cm71710-4-A29c-1-22	3112.6	13.9993	405	3/12/2013 15:51	Garnet (on the basis of 12 O)
15 / 16 .	0.13970804	0.17440331	0.67002995	0.0158587	4359	-35780.6	207			cm71710-4-A29c-1-22	3114.59	14.0354	406	3/12/2013 15:55	Garnet (on the basis of 12 O)
15 / 17 .	0.13156964	0.18244167	0.66842785	0.01756084	4361	-35780.8	207			cm71710-4-A29c-1-22	3116.57	13.9864	407	3/12/2013 15:59	Garnet (on the basis of 12 O)
15 / 18 .	0.12535841	0.18743754	0.66848615	0.01871789	4363	-35781.1	207			cm71710-4-A29c-1-22	3118.55	13.9736	408	3/12/2013 16:02	Garnet (on the basis of 12 O)
15 / 19 .	0.13212538	0.18680045	0.66249778	0.01857638	4365	-35781.3	207			cm71710-4-A29c-1-22	3120.53	14.0128	409	3/12/2013 16:06	Garnet (on the basis of 12 O)
15 / 20 .	0.13330887	0.18816508	0.66009421	0.01843185	4367	-35781.5	207			cm71710-4-A29c-1-22	3122.51	14.0344	410	3/12/2013 16:10	Garnet (on the basis of 12 O)
15 / 21 .	0.14469706	0.18523294	0.65063781	0.01943219	4369	-35781.8	207			cm71710-4-A29c-1-22	3124.5	13.9256	411	3/12/2013 16:13	Garnet (on the basis of 12 O)
15 / 22 .	0.14994301	0.18532192	0.64462231	0.02011277	4371	-35782	207			cm71710-4-A29c-1-22	3126.48	13.9155	412	3/12/2013 16:17	Garnet (on the basis of 12 O)

Nb of Ions

Formula	P	Si	Ti	Al	Cr	Mg	Ca	Mn	Fe	Na	Total	X
6 / 1 .	0	2.982	0	1.99	0	0.868	0.426	0.03	1.726	0.002	8.023	4681
6 / 2 .	0.001	2.976	0.001	1.984	0	0.869	0.443	0.028	1.726	0.002	8.03	4678.8
6 / 3 .	0	2.968	0.003	1.997	0	0.868	0.447	0.029	1.72	0	8.031	4676.7
6 / 4 .	0.001	2.978	0.001	1.988	0	0.841	0.475	0.025	1.715	0	8.026	4674.5
6 / 5 .	0	2.972	0.001	1.994	0.001	0.835	0.492	0.024	1.709	0.001	8.029	4672.4
6 / 6 .	0.001	2.971	0.002	1.989	0.001	0.79	0.537	0.023	1.718	0.003	8.033	4670.2
6 / 7 .	0.001	2.976	0.002	1.987	0	0.751	0.583	0.022	1.706	0.002	8.029	4668.1
6 / 8 .	0	2.975	0.003	1.981	0	0.678	0.645	0.017	1.734	0	8.032	4665.9
6 / 9 .	0	2.967	0.004	1.994	0.001	0.63	0.676	0.015	1.745	0.002	8.033	4663.7
6 / 10 .	0.002	2.983	0.005	1.98	0	0.583	0.696	0.017	1.752	0.002	8.021	4661.6
6 / 11 .	0.001	2.968	0.004	1.983	0.001	0.569	0.714	0.02	1.772	0.003	8.036	4659.4
6 / 12 .	0.001	2.978	0.006	1.971	0.001	0.549	0.732	0.021	1.768	0.003	8.029	4657.3
6 / 13 .	0.001	2.973	0.006	1.969	0	0.517	0.76	0.019	1.792	0.002	8.037	4655.1
6 / 14 .	0	2.972	0.007	1.972	0	0.494	0.794	0.018	1.777	0.002	8.036	4652.9
6 / 15 .	0.001	2.974	0.006	1.969	0.001	0.484	0.806	0.019	1.772	0.002	8.035	4650.8
6 / 16 .	0	2.978	0.007	1.963	0	0.499	0.784	0.02	1.78	0.003	8.035	4648.6
6 / 17 .	0.002	2.982	0.006	1.965	0.001	0.498	0.767	0.021	1.785	0.004	8.03	4646.5
6 / 18 .	0.001	2.974	0.007	1.97	0.001	0.519	0.782	0.022	1.755	0.002	8.033	4644.3
6 / 19 .	0	2.981	0.006	1.956	0.001	0.53	0.795	0.022	1.74	0.005	8.036	4642.2
6 / 20 .	0	2.982	0.006	1.962	0.002	0.533	0.758	0.025	1.757	0.004	8.031	4640
14 / 1 .	0.002	2.96	0.01	1.954	0.001	0.235	1.119	0.038	1.73	0	8.049	4385
14 / 2 .	0.001	2.951	0.01	1.966	0.001	0.26	1.129	0.036	1.698	0.003	8.055	4385.5
14 / 3 .	0.001	2.971	0.01	1.941	0.001	0.253	1.125	0.037	1.704	0.004	8.048	4386.1

Formula	Y	Z	Beam X	Beam Y	Comment	Distance (μ)	Mean Z	Point#	Date	Geo Specie
6 / 1 .	-35294	195			cm71710-4-A9-1-20	3496.4	14.129	67	3/11/2013 17:12	Garnet (on the basis of 12 O)
6 / 2 .	-35294	195			cm71710-4-A9-1-20	3494.28	14.2085	68	3/11/2013 17:17	Garnet (on the basis of 12 O)
6 / 3 .	-35294	195			cm71710-4-A9-1-20	3492.16	14.2202	69	3/11/2013 17:20	Garnet (on the basis of 12 O)
6 / 4 .	-35294	195			cm71710-4-A9-1-20	3490.04	14.2054	70	3/11/2013 17:24	Garnet (on the basis of 12 O)
6 / 5 .	-35294	195			cm71710-4-A9-1-20	3487.93	14.1624	71	3/11/2013 17:28	Garnet (on the basis of 12 O)
6 / 6 .	-35294	195			cm71710-4-A9-1-20	3485.81	14.2212	72	3/11/2013 17:31	Garnet (on the basis of 12 O)
6 / 7 .	-35294	195			cm71710-4-A9-1-20	3483.69	14.2492	73	3/11/2013 17:35	Garnet (on the basis of 12 O)
6 / 8 .	-35294	195			cm71710-4-A9-1-20	3481.58	14.2837	74	3/11/2013 17:39	Garnet (on the basis of 12 O)
6 / 9 .	-35294	195			cm71710-4-A9-1-20	3479.46	14.3791	75	3/11/2013 17:42	Garnet (on the basis of 12 O)
6 / 10 .	-35294	195			cm71710-4-A9-1-20	3477.34	14.3425	76	3/11/2013 17:46	Garnet (on the basis of 12 O)
6 / 11 .	-35294	195			cm71710-4-A9-1-20	3475.22	14.3739	77	3/11/2013 17:49	Garnet (on the basis of 12 O)
6 / 12 .	-35294	195			cm71710-4-A9-1-20	3473.11	14.4199	78	3/11/2013 17:53	Garnet (on the basis of 12 O)
6 / 13 .	-35294	195			cm71710-4-A9-1-20	3470.99	14.4604	79	3/11/2013 17:57	Garnet (on the basis of 12 O)
6 / 14 .	-35294	195			cm71710-4-A9-1-20	3468.87	14.4221	80	3/11/2013 18:01	Garnet (on the basis of 12 O)
6 / 15 .	-35294	195			cm71710-4-A9-1-20	3466.76	14.4761	81	3/11/2013 18:04	Garnet (on the basis of 12 O)
6 / 16 .	-35294	195			cm71710-4-A9-1-20	3464.64	14.4678	82	3/11/2013 18:08	Garnet (on the basis of 12 O)
6 / 17 .	-35294	195			cm71710-4-A9-1-20	3462.52	14.4867	83	3/11/2013 18:12	Garnet (on the basis of 12 O)
6 / 18 .	-35294	195			cm71710-4-A9-1-20	3460.41	14.3833	84	3/11/2013 18:15	Garnet (on the basis of 12 O)
6 / 19 .	-35294	195			cm71710-4-A9-1-20	3458.29	14.3863	85	3/11/2013 18:19	Garnet (on the basis of 12 O)
6 / 20 .	-35294	195			cm71710-4-A9-1-20	3456.17	14.4138	86	3/11/2013 18:23	Garnet (on the basis of 12 O)
14 / 1 .	-35631	207			cm71710-4-A29b-1-27	3152.96	14.3196	364	3/12/2013 13:19	Garnet (on the basis of 12 O)
14 / 2 .	-35633	207			cm71710-4-A29b-1-27	3153.28	14.2467	365	3/12/2013 13:23	Garnet (on the basis of 12 O)
14 / 3 .	-35634.9	207			cm71710-4-A29b-1-27	3153.61	14.2878	366	3/12/2013 13:26	Garnet (on the basis of 12 O)

14 / 4 .	0.001	2.973	0.011	1.946	0.001	0.236	1.128	0.036	1.711	0.001	8.043	4386.6	-35636.9	207	cm71710-4-A29b-1-27	3153.94	14.2862	367	3/12/2013 13:30	Garnet (on the basis of 12 O)
14 / 5 .	0.001	2.971	0.008	1.955	0.001	0.229	1.122	0.035	1.72	0	8.041	4387.2	-35638.9	207	cm71710-4-A29b-1-27	3154.27	14.2945	368	3/12/2013 13:34	Garnet (on the basis of 12 O)
14 / 6 .	0.002	2.955	0.009	1.963	0.001	0.24	1.126	0.037	1.719	0.002	8.052	4387.7	-35640.8	207	cm71710-4-A29b-1-27	3154.6	14.305	369	3/12/2013 13:37	Garnet (on the basis of 12 O)
14 / 7 .	0.002	2.971	0.01	1.947	0.001	0.246	1.111	0.034	1.72	0.002	8.044	4388.2	-35642.8	207	cm71710-4-A29b-1-27	3154.94	14.3886	370	3/12/2013 13:41	Garnet (on the basis of 12 O)
14 / 8 .	0.001	2.977	0.009	1.953	0.001	0.244	1.107	0.034	1.708	0.002	8.037	4388.8	-35644.7	207	cm71710-4-A29b-1-27	3155.27	14.2482	371	3/12/2013 13:45	Garnet (on the basis of 12 O)
14 / 9 .	0.003	2.962	0.01	1.953	0.001	0.235	1.124	0.036	1.723	0.002	8.048	4389.3	-35646.7	207	cm71710-4-A29b-1-27	3155.61	14.3362	372	3/12/2013 13:49	Garnet (on the basis of 12 O)
14 / 10 .	0.001	2.957	0.011	1.959	0.001	0.235	1.124	0.035	1.727	0.002	8.051	4389.8	-35648.7	207	cm71710-4-A29b-1-27	3155.94	14.2579	373	3/12/2013 13:52	Garnet (on the basis of 12 O)
14 / 11 .	0.002	2.974	0.01	1.945	0	0.244	1.11	0.035	1.719	0.002	8.042	4390.4	-35650.6	207	cm71710-4-A29b-1-27	3156.28	14.2997	374	3/12/2013 13:56	Garnet (on the basis of 12 O)
14 / 12 .	0	2.97	0.009	1.954	0	0.284	1.092	0.034	1.698	0.004	8.045	4390.9	-35652.6	207	cm71710-4-A29b-1-27	3156.62	14.2937	375	3/12/2013 14:00	Garnet (on the basis of 12 O)
14 / 13 .	0.001	2.961	0.009	1.95	0.001	0.394	1.074	0.033	1.627	0.004	8.055	4391.5	-35654.5	207	cm71710-4-A29b-1-27	3156.96	14.1811	376	3/12/2013 14:03	Garnet (on the basis of 12 O)
14 / 14 .	0.002	2.967	0.01	1.948	0	0.433	1.084	0.033	1.566	0.003	8.047	4392	-35656.5	207	cm71710-4-A29b-1-27	3157.31	14.1056	377	3/12/2013 14:07	Garnet (on the basis of 12 O)
14 / 15 .	0.002	2.957	0.012	1.94	0.001	0.401	1.122	0.034	1.588	0.003	8.059	4392.5	-35658.5	207	cm71710-4-A29b-1-27	3157.65	14.1308	378	3/12/2013 14:11	Garnet (on the basis of 12 O)
14 / 16 .	0.001	2.961	0.009	1.954	0.001	0.416	1.112	0.034	1.562	0.003	8.052	4393.1	-35660.4	207	cm71710-4-A29b-1-27	3157.99	14.092	379	3/12/2013 14:14	Garnet (on the basis of 12 O)
14 / 17 .	0	2.961	0.007	1.961	0	0.57	0.945	0.032	1.574	0.003	8.053	4393.6	-35662.4	207	cm71710-4-A29b-1-27	3158.34	13.9974	380	3/12/2013 14:18	Garnet (on the basis of 12 O)
14 / 18 .	0.002	2.962	0.002	1.975	0.001	0.808	0.48	0.034	1.781	0.002	8.047	4394.2	-35664.4	207	cm71710-4-A29b-1-27	3158.69	14.1213	381	3/12/2013 14:22	Garnet (on the basis of 12 O)
14 / 19 .	0.002	2.962	0.002	1.973	0.001	0.843	0.461	0.031	1.769	0.002	8.047	4394.7	-35666.3	207	cm71710-4-A29b-1-27	3159.04	14.0395	382	3/12/2013 14:25	Garnet (on the basis of 12 O)
14 / 20 .	0.001	2.957	0.002	1.979	0.002	0.837	0.49	0.03	1.748	0.005	8.051	4395.2	-35668.3	207	cm71710-4-A29b-1-27	3159.39	14.0174	383	3/12/2013 14:29	Garnet (on the basis of 12 O)
14 / 21 .	0	2.961	0.001	1.981	0.001	0.832	0.518	0.026	1.726	0.002	8.048	4395.8	-35670.2	207	cm71710-4-A29b-1-27	3159.74	13.9907	384	3/12/2013 14:33	Garnet (on the basis of 12 O)
14 / 22 .	0.001	2.965	0.002	1.967	0.001	0.861	0.499	0.025	1.724	0.001	8.047	4396.3	-35672.2	207	cm71710-4-A29b-1-27	3160.09	13.9802	385	3/12/2013 14:36	Garnet (on the basis of 12 O)
14 / 23 .	0	2.954	0.002	1.983	0.001	0.862	0.494	0.024	1.732	0	8.052	4396.8	-35674.2	207	cm71710-4-A29b-1-27	3160.44	14.0005	386	3/12/2013 14:40	Garnet (on the basis of 12 O)
14 / 24 .	0.001	2.965	0.002	1.975	0.002	0.87	0.46	0.028	1.739	0.003	8.045	4397.4	-35676.1	207	cm71710-4-A29b-1-27	3160.8	14.0427	387	3/12/2013 14:44	Garnet (on the basis of 12 O)
14 / 25 .	0.001	2.95	0.003	1.98	0.001	0.887	0.465	0.026	1.739	0.002	8.055	4397.9	-35678.1	207	cm71710-4-A29b-1-27	3161.16	13.9931	388	3/12/2013 14:48	Garnet (on the basis of 12 O)
14 / 26 .	0	2.97	0.002	1.97	0	0.882	0.458	0.027	1.733	0.002	8.044	4398.5	-35680	207	cm71710-4-A29b-1-27	3161.51	13.9912	389	3/12/2013 14:51	Garnet (on the basis of 12 O)
14 / 27 .	0.001	2.966	0.002	1.973	0.001	0.902	0.433	0.025	1.741	0.001	8.044	4399	-35682	207	cm71710-4-A29b-1-27	3161.87	13.9993	390	3/12/2013 14:55	Garnet (on the basis of 12 O)
15 / 1 .	0	2.958	0.011	1.952	0.001	0.264	1.092	0.033	1.741	0.004	8.056	4329	-35777	207	cm71710-4-A29c-1-22	3084.86	14.2787	391	3/12/2013 14:59	Garnet (on the basis of 12 O)
15 / 2 .	0.003	2.958	0.01	1.947	0.001	0.274	1.092	0.035	1.733	0.002	8.055	4331	-35777.2	207	cm71710-4-A29c-1-22	3086.84	14.2933	392	3/12/2013 15:03	Garnet (on the basis of 12 O)
15 / 3 .	0.002	2.961	0.011	1.954	0.002	0.276	1.083	0.032	1.723	0.003	8.047	4333	-35777.5	207	cm71710-4-A29c-1-22	3088.82	14.2721	393	3/12/2013 15:07	Garnet (on the basis of 12 O)
15 / 4 .	0.002	2.969	0.01	1.95	0	0.282	1.083	0.034	1.709	0.003	8.043	4335	-35777.7	207	cm71710-4-A29c-1-22	3090.8	14.2008	394	3/12/2013 15:10	Garnet (on the basis of 12 O)
15 / 5 .	0.001	2.969	0.009	1.951	0.001	0.286	1.083	0.035	1.707	0.004	8.046	4337	-35778	207	cm71710-4-A29c-1-22	3092.78	14.2972	395	3/12/2013 15:14	Garnet (on the basis of 12 O)
15 / 6 .	0.002	2.965	0.01	1.947	0.001	0.279	1.082	0.034	1.73	0.003	8.05	4339	-35778.2	207	cm71710-4-A29c-1-22	3094.77	14.2666	396	3/12/2013 15:18	Garnet (on the basis of 12 O)
15 / 7 .	0.002	2.951	0.009	1.96	0.001	0.287	1.091	0.033	1.72	0.002	8.057	4341	-35778.4	207	cm71710-4-A29c-1-22	3096.75	14.2675	397	3/12/2013 15:21	Garnet (on the basis of 12 O)
15 / 8 .	0.002	2.961	0.01	1.951	0.001	0.319	1.095	0.033	1.676	0.002	8.051	4343	-35778.7	207	cm71710-4-A29c-1-22	3098.73	14.262	398	3/12/2013 15:25	Garnet (on the basis of 12 O)
15 / 9 .	0.002	2.952	0.008	1.955	0	0.508	1.016	0.03	1.589	0.006	8.064	4345	-35778.9	207	cm71710-4-A29c-1-22	3100.71	14.047	399	3/12/2013 15:29	Garnet (on the basis of 12 O)
15 / 10 .	0	2.968	0.004	1.969	0	0.709	0.637	0.037	1.718	0.002	8.044	4347	-35779.1	207	cm71710-4-A29c-1-22	3102.69	14.0262	400	3/12/2013 15:33	Garnet (on the basis of 12 O)
15 / 11 .	0.001	2.964	0.003	1.984	0	0.745	0.569	0.035	1.737	0.003	8.041	4349	-35779.4	207	cm71710-4-A29c-1-22	3104.68	14.0243	401	3/12/2013 15:36	Garnet (on the basis of 12 O)
15 / 12 .	0	2.958	0.004	1.979	0.001	0.765	0.545	0.037	1.758	0.003	8.05	4351	-35779.6	207	cm71710-4-A29c-1-22	3106.66	14.0435	402	3/12/2013 15:40	Garnet (on the basis of 12 O)
15 / 13 .	0.001	2.956	0.002	1.982	0.001	0.781	0.521	0.036	1.768	0.002	8.05	4353	-35779.9	207	cm71710-4-A29c-1-22	3108.64	14.0469	403	3/12/2013 15:44	Garnet (on the basis of 12 O)
15 / 14 .	0.001	2.957	0.002	1.978	0.001	0.814	0.459	0.037	1.8	0.001	8.051	4355	-35780.1	207	cm71710-4-A29c-1-22	3110.62	14.0166	404	3/12/2013 15:47	Garnet (on the basis of 12 O)
15 / 15 .	0.001	2.961	0.002	1.978	0.001	0.791	0.505	0.04	1.766	0.003	8.048	4357	-35780.3	207	cm71710-4-A29c-1-22	3112.6	13.9993	405	3/12/2013 15:51	Garnet (on the basis of 12 O)
15 / 16 .	0	2.96	0.002	1.974	0	0.822	0.474	0.042	1.773	0.004	8.052	4359	-35780.6	207	cm71710-4-A29c-1-22	3114.59	14.0354	406	3/12/2013 15:55	Garnet (on the basis of 12 O)
15 / 17 .	0	2.953	0.002	1.992	0.001	0.854	0.443	0.047	1.755	0.003	8.049	4361	-35780.8	207	cm71710-4-A29c-1-22	3116.57	13.9864	407	3/12/2013 15:59	Garnet (on the basis of 12 O)
15 / 18 .	0	2.971	0	1.974	0	0.875	0.42	0.05	1.75	0.002	8.043	4363	-35781.1	207	cm71710-4-A29c-1-22	3118.55	13.9736	408	3/12/2013 16:02	Garnet (on the basis of 12 O)
15 / 19 .	0.001	2.952	0.003	1.985	0	0.874	0.444	0.049	1.739	0.005	8.053	4365	-35781.3	207	cm71710-4-A29c-1-22	3120.53	14.0128	409	3/12/2013 16:06	Garnet (on the basis of 12 O)
15 / 20 .	0.002	2.957	0.002	1.98	0.002	0.878	0.447	0.049	1.729	0.004	8.049	4367	-35781.5	207	cm71710-4-A29c-1-22	3122.51	14.0344	410	3/12/2013 16:10	Garnet (on the basis of 12 O)
15 / 21 .	0.002	2.958	0.003	1.978	0.001	0.864	0.485	0.052	1.703	0.001	8.047	4369	-35781.8	207	cm71710-4-A29c-1-22	3124.5	13.9256	411	3/12/2013 16:13	Garnet (on the basis of 12 O)
15 / 22 .	0.001	2.959	0.004	1.983	0.001	0.86	0.5	0.053	1.678	0.005	8.045	4371	-35782	207	cm71710-4-A29c-1-22	3126.48	13.9155	412	3/12/2013 16:17	Garnet (on the basis of 12 O)