



Appendix Figure A1. Typical examples of the studied samples. (a) Cut surface of R08-1. Brown colored clasts are altered periodites. White colored networks mainly consists of carbonate minerals. Thin section of R08-1 is shown in Fig. 2. Cut surface (b) of R01 mounted in epoxy and its thin section. Small altered peridotite clasts are indicated by arrows.

Table S1.

	Literature	references	This study
Y	0.11-0.21	1,2,3,4,	0.10-0.16
Dy	0.14	1,2	0.07-1.4
Ho	0.15	2	0.09-0.18
Er	0.14-0.21	1,2,3,4,	0.14-0.23
Yb	0.21-0.3	1,2,3,4,	0.2-0.34
Lu	0.24-0.36	2,3,4,	0.19-0.58

Table S1. Partitioning of HREEs (Dy, Ho, Er, Yb and Lu ) and Y between orthopyroxene and clinopyroxene. Literatures are as follows: 1. Ozawa and Shimizu (1995), 2. Kelemen et al (2003), 3. MacDade et al. (2003a), and MacDade et al. (2003b).

## References

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Morishita et al. Appendix Table S1.