

## **GEOCHEMISTRY OF LHERZOLITE AND PYROXENITES MANTLE INCLUSIONS FROM DIFFERENT STAGES OF DEVELOPMENT VITIM VOLCANIC PLATEAU.**

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Chemistry of lherzolites (Lzh) and pyroxenites (Pxt) representing feeding vein system, intermediate chambers, vein apophyses and collectors of the melts essentially vary in different periods of mantle activity. Cpx in GarLzh from Miocene picrite basalts (18(14)Ma) demonstrate humped REE commonly but several reveal Ce dips (Zr precipitation) and chromatographic sinks. Parental melts for Gar and Cpx are not equilibrated for more deep varieties suggesting different percolating channels, more shallow fine grained GarLzh are enriched in HFSE. Anatexic Cr-Di Pxt reveal admixture of metasomatics what is more evident for black fine grained varieties. MegaPxt (OpxCpx?CpxGa?Cpx?CpxIlmPhl) show the signs of interaction with Lzh in HT 1200°C and dissolution of early precipitated phases (Ilm, mica) in LT. SpLzh from valley basanites (1.5-1.0 Ma) reveal three branches in each mantle layers: a) Fe#~0.1 with humped REE, high Zr/Y for pseudogarnet (PGar) lower zones and common flat or LREE-lowered for intermediate and upper ones, b) Fe#~0.11-0.12 showing mixing with basalts, c) Fe#~0.08-0.09 with low REE sometimes LREE elevated for repeatedly depleted and percolating channels. Cr-Di veins demonstrate several To-Fe trends of basalt admixing. Veined basaltic Pxt decrease Lzh admixture (Gar-hump, HFSE) in shallow levels. MegaPxt crystallized shallower (OpxCpx?Cpx(Gar)?CpxIlmMt?MtAFs). In latest hawaiiite cones and dikes Gar-Sp Fe-Ti-Lhz (to 0.13Fe#) with basaltic spidergrams constitute lower zones in mantle sections rarely appearing upper (SpLzh) in fertile PGarLzh and shallow SpLzh lithospheric zones. Rare Sp and PGar anatexic pyroxenites are more hibridal, black OIPxt represent basaltic channels. MegaPxt trend is more complex (OpxCpx?Cpx?Cpx(GarPhlIlm) ?CpxMt?MtAFs). Grants RBRF 94-05-17103, 99-05-65688.