

## GEOQUÍMICA DE XENOLITOS ULTRAMÁFICOS DE LA PROVINCIA DE RIO NEGRO

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### ABSTRACT

Mantle xenoliths occur in Pliocene-Quaternary alkali basalts lava flows, necks and cinder cones in Rio Negro province, with outcrops extending from Comallo in the west to Prahuaniqueu in the east. Spinel harzburgites are dominant followed by spinel lherzolites and websterites.

The dominant texture is porphyroclastic followed by equigranular (both tabular and mosaic); the transitional types are also present. Equilibrium p-T conditions estimated using the two-pyroxene thermometer and the Ca-in-olivine barometer show that high p-T conditions are recorded in spinel lherzolites and harzburgites, with temperatures ranging from 1260 to 1230 °C and pressures from 24 to 19 kbar. These xenoliths contain characteristic pyroxene/Cr-spinel symplectites.

Peridotites of primitive chemical composition are lacking in this part of Patagonia. The xenoliths were affected by elemental depletions and metasomatic enrichments relative to primitive upper mantle abundances, both modal and cryptic. Bulk rock trace element analyses by 1NAA indicate complex elemental depletion and enrichment events. Anhydrous xenoliths commonly have moderately depleted HREEs (0.1 —0.8 x CI) and LREE enrichments with (La/Yb)<sub>n</sub> ratio up to 9. The predominant occurrence of harzburgites indicates a depleted lithospheric mantle which has been modified by modal and cryptic metasomatism, a fact which is demonstrated by the geochemistry of the xenoliths.