

**CARACTERIZACIÓN DE PROCESOS DE MEZCLA A TRAVÉS DE LA MINERALOGÍA Y LA
TEXTURA EN VOLCANITAS PLIOCENAS.**

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Abstract

To the west of Salar Incahuasi and Taca Taca's range, and to the north of Salar Taca Taca, in the Western Puna, is located a wide basandesites and andesites field. Although they doesn't have any physical linking, they have been interpreted as a product of the initial emissions of the Aracar volcano, located to the northwest of the volcanic field mentioned before.

Rocks are grey to black, basic to intermediate in composition with a normal calc-alkaline trend, characterized by porphyric to microporphyric textures, with pyroxene, plagioclase and olivine phenocrysts in lesser amounts. The fine groundmass is made up by microliths and a glassy matrix. It is common to find disequilibrium textures between groundmass and phenocrysts, as well as corroded phenocrysts and xenoliths. Evidences of magma mingling directly related to the genesis of the rocks were recognized when gathering field, petrographic and geochemical data of the studied rocks. The evolution of these magmas is considered to be the result of comagmatic processes that involve the generation of mantle melts, with contribution of cortical elements in a volcanic arc setting. That occurred in an open magmatic chamber, under disequilibrium conditions caused by assimilation and/or mixing events, among can be considered new magma input.