

**CARACTERISTICAS DE LOS FLUIDOS HIDROTERMALES DEL YACIMIENTO PUERTO
SAN ANTONIO A PARTIR DEL ESTUDIO DE TIERRAS RARAS EN FLUORITA Y
CALCITA.**

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Abstract

REEs contents were measured. in 6 fluorite and 5 calcite samples from Pto San Antonio deposit (Rio Negro, Argentina). The concentration of rare-earth elements (REE) in fluorite and calcite reflects the conditions of their crystallization. Fluorite and calcite exhibit similar REE/chondrite patterns, with an enrichment in light REE (LREE), depleted heavy REE (HREE) and accompanied by a similar small enrichment in Tb. They show Eu/Eu* near to 1, and might have crystalized from relatively oxidazing fluid with very small inherited Eu anomalies. Fluorite would be deposited early during the fluid evolution with little changes in temperature. Caicite would be deposited in two stages, the earlier with fluorite and the later from a more oxidizing fluid.