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FOSFATOS DE LA PEGMATITA GÉMINIS, PROVINCIA DE SAN LUIS

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Abstract

Géminis mine is a lithium pegmatite located on the western slope of the Sierra de San Luis, at the south-eastern of San Francisco del Monte de Oro. Appears a granitic composition mainly constituted of quartz, microcline, plagioclase, moscovite, spodumene, beryle, columbite-tantalite and bismutinite. Moreover, it shows an interesting mineralogy in phosphatic species. The presence of amblygonite, lithiophilite, hureaulite, bermanite and metastrengite is also recognized.
The phosphate minerals species identification has been carried out by means of X-Ray Powder Diffraction analysis (XRPD), Scanning Electron Microscopy (SEM) including Energy Dispersive Analysis of X-Rays (EDAX), electron microprobe and infrared spectroscopy (IR) which allows confirm the meteoric alteration and the thermic action.
The phosphates constitute a mineral group which also allow establish conditions of formation in pegmatitic-hydrothermal stage and the paragenetic sequence of crystallization.