COMPLEX HISTORY OF WALL ROCK ALTERATION IN THE RIO DOS BUGRES FLUORITE MINE, SANTA CATARINA STATE, BRAZIL

1FLORES, J. A. A., 1FORMOSO, M. and 2MEUNIER, A. 1CPGq/IG/UFRGS, Brazil; 2Université de Poitiers, France

Long history of wall rock alteration occurred in the Rio dos Bugres Fluorite Mine near Rio Fortuna City, Santa Catarina State, Brazil. where mylonitic and cataclastic rocks occur associated to granitic rocks of Neo-Proterozoic Brazilian Cycle. Metasomatic process with temperature around 450°C was responsible by the transformation of granitic rocks in to apogranites associated with muscovitization and chloritization of biotite, partial replacements of quartz, K-feldspar and oligoclase by albite (en échiquier), a low temperature mineral. The second hydrothermal event occurred as a propilitic pervasive alteration of tonalitic rocks, a chloritization a epidotization alteration of monzogranitic rocks and phylic alteration of syenogranites with temperatures about 200 – 350°C. The last hydrothermal alteration associated with the Mesozoic cataclastic event and the fluorite veins deposition occur principally about 140°C.