

Geochemistry of the amphiboles of the granitoid rocks of the São Vicente/Caicó Batholith - RN/Brazil

¹PETTA, R. A.; ¹F. DA COSTA CAMPOS, T.; ²VERKAEREN, J.;
¹Programa de Pós-Graduação em Geociências Departamento de Geologia UFRN-Natal-RN, Brazil; ²Institute de Géologie-Université Catholique-Louvain-la-Neuve,Belgium

The amphiboles of the granitoid rocks in the São Vicente/Caicó Suite (SVCS) RN-Brazil present different compositions in each rock type. Chemical analyses of these amphiboles are comprised of the total of oxides between 96,5—98,5% and they possess $Al^{VI} < 0,6Al^{IV} + 0,25$, that could also vary in the same crystal.

In the granitic bodies of the Caicó region, the amphiboles are essentially constituted by hornblende actinolite, magnesium-hornblende and edenite. In the São Vicente granitoides, these crystals are constituted essentially of iron-hornblende, magnesium-hornblende, edenite and magnesium hornblende hastingsite. In the amphiboles of the gabbroic rocks, no large compositional differences was found among the amphiboles which are dispersed in the matrix and the ones that form small agglomerates, not so among the amphiboles with larger numbers of inclusions (poicilitic texture) and the minerals which possess rare inclusions.

Most of the amphiboles of the São Vicente area usually fall in the non magmatic field or close to the separation line of the two fields, while most of the amphiboles of the Caicó area fall in the field of the magmatic amphiboles, although some edenite compositions and actinolitic hornblende of this area fall on the separation line or in the non magmatic field.