Geochemical features of Neoproterozoic magmatism from NE of Uruguay (Dom Feliciano Belt)

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In NE of Uruguay occurs various granitoid bodies of Neoproterozoic age from the Dom Feliciano Belt, and related to the collision between Río de la Plata and Kalahari cratons [1 and references therein]. This felsic magmatism in the area is mainly represented by Dionisio-Sierra de los Ríos Batholith that was studied only in regional surveys [2] [3], and lacks basic geochemical information. These granitoids show variable degrees of deformation from isotropic to milonitic textures. Here is presented the first lithogeochemical results for major and trace elements obtained from 22 samples. The analysis were performed by Bureau Veritas Canadá using code LF200.

The lithogeochemical results for the granitoids show SiO_2 = 68.49–76.44 wt.%, Mg# = 4–34, Al_2O_3 = 12.19–16.46 wt.%, (Na_2O + K_2O) = 7.1–9.55 wt.%, A/CNK = 1.03–1.12, and ΣREE = 79.24 – 373.77. All the granitoid samples are high K - calc-alkaline, with peraluminous nature. Moreover, these granitoids are enriched in light rare earth elements (LREEs) and large ion lithophile elements (LILEs), and depleted in heavy rare earth elements (HREEs) and high field strength elements (HFSEs, Nb, Ta, and Ti). Finally, the samples show syn-collisional to post- collisional signature.

[1] Sánchez-Bettucci et al. (2010) *INT GEOL REV*, **52**: 1, 51-78. [2] Preciozzi, F.; Spoturno, J.; Heinzen, W.; Rossi, P. 1985. Carta Geológica, DINAMIGE, 92 p. [3] Bossi, J. & Ferrando, L. (2001). Carta Geológica del Uruguay, a escala 1/500. 000, CD-Rom. N. Campal & A. Schipilov (eds). Montevideo.