

## **THE MESOZOIC VOLCANIC-ARC RELATED MAGMATISM IN THE PATAGONIAN CORDILLERA**

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The segment of the Patagonian Cordillera between 43 and 46° S is characterized by a magmatic activity which extends from the early Jurassic to Late Lower Cretaceous. During the Lower Jurassic and the Lower Cretaceous developed a thick volcanoclastic sequence with sedimentary interbeddings. The volcanics are composed by lavas and pyroclasts of basandesitic to rhyolitic composition. Several plutons whose composition varies from granites to diorites intrude the volcanoclastics. Both, the plutonics and the volcanics are of subalkaline type with calc-alkaline affinity. Meanwhile the lavas have a typical orogenic geochemical signature; the plutonics show distinct volcanic arc granitoid features. A  $180 \pm 10$  Ma Rb/Sr age has been obtained for the volcanics and ages ranging  $138 \pm 2$  -  $118 \pm 3$  Ma for the plutonics. The considered 300 km extent of the Patagonian Cordillera show remarkable homogenous geochemical data suggesting a magmatism derived through fractionated crystallization from a relatively primitive source related to a volcanic arc with slight crustal contamination.