

Lu-Hf and O isotope systematics in High-Si Late Triassic granitoids of Southern Central Chile (34-37°S)

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Small cluster of three contemporaneous (≈ 210 - 220 Ma.) isolated high silica granitoids in Coastal Cordillera of Southern Central Chile probably represent the first evidence of Early Andean magmatism at these latitudes [1]. Compositionally they can be classified as S and A type-like.

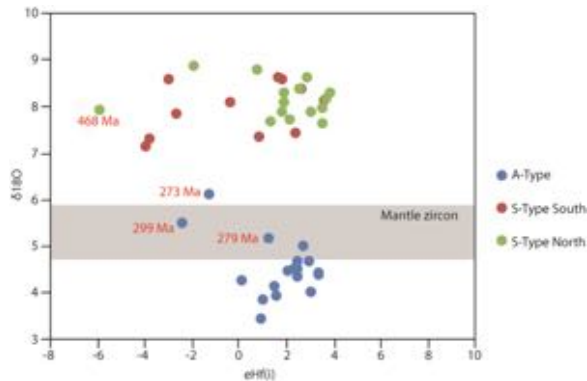


Fig 1. O-Hf isotopic composition of studied Late Triassic zircons and few Paleozoic inherit grains.

None clear correlative behaviour between O and Hf isotopes is observed showing a mainly depleted source according to positive initial ϵHf values in all the samples, but with two groups of O compositions. Inherit zircons suggest that higher values of $\delta^{18}\text{O}$ in S-type granites probably reflect the melting and assimilation of Paleozoic accretionary prism that compose most of the lower and middle crust in the western edge of Coastal Cordillera [3] whereas for A-Type rocks the main assimilated material seems to be Late Paleozoic granitic lower crust.

[1] Rossel and Carvajal in press. *Springer*. [2] Vasquez et al., 2011. *The Journal of Geology* **119**, 159-184. [3] Herve et al., 2013. *Gondwana Research* **23**, 1122-1135.