

## THE JURASSIC ACIDIC VOLCANISM OF NORTH-EAST PATAGONIA: A SHORT-LIVED EVENT OF DEEP ORIGIN.

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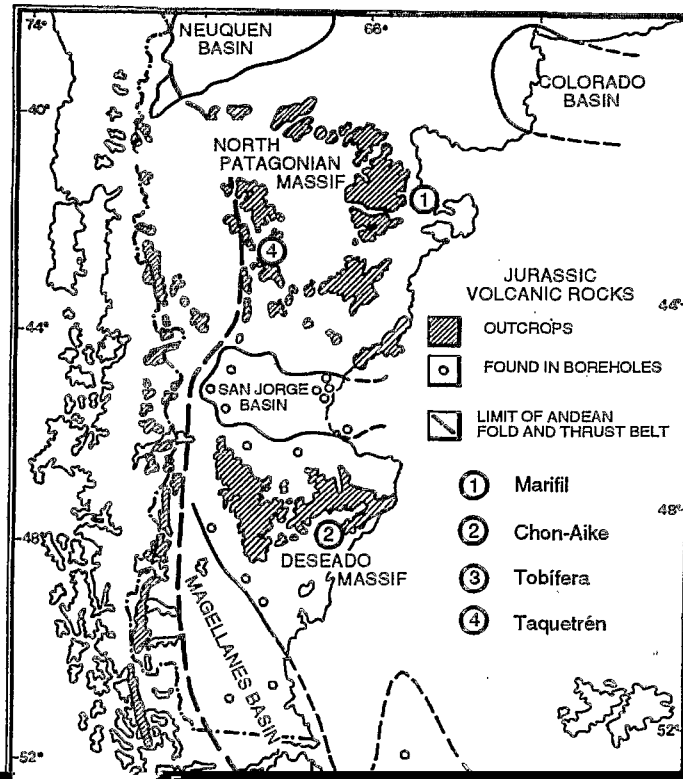
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**RESUMEN:** Se presenta un estudio geocronológico detallado en una de las provincias silíceas más extensas del mundo. Los resultados condujeron a dos conclusiones principales: (1) Las rocas volcánicas se formaron durante un lapso de tiempo muy corto (3-5Ma) hace 180 Ma atrás, con edades progresivamente más jóvenes hacia el sur. (2) Los magmas se derivaron directa o indirectamente de una fuente isotópicamente uniforme como un manto litosférico enriquecido o una corteza inferior poco evolucionada.

**KEY WORDS:** Patagonia, Rhyolite volcanism, Jurassic, Geochronology, Sr-isotopes.

### INTRODUCTION

The Early Mesozoic rhyolite-ignimbrite association of eastern Patagonia represents one of the most



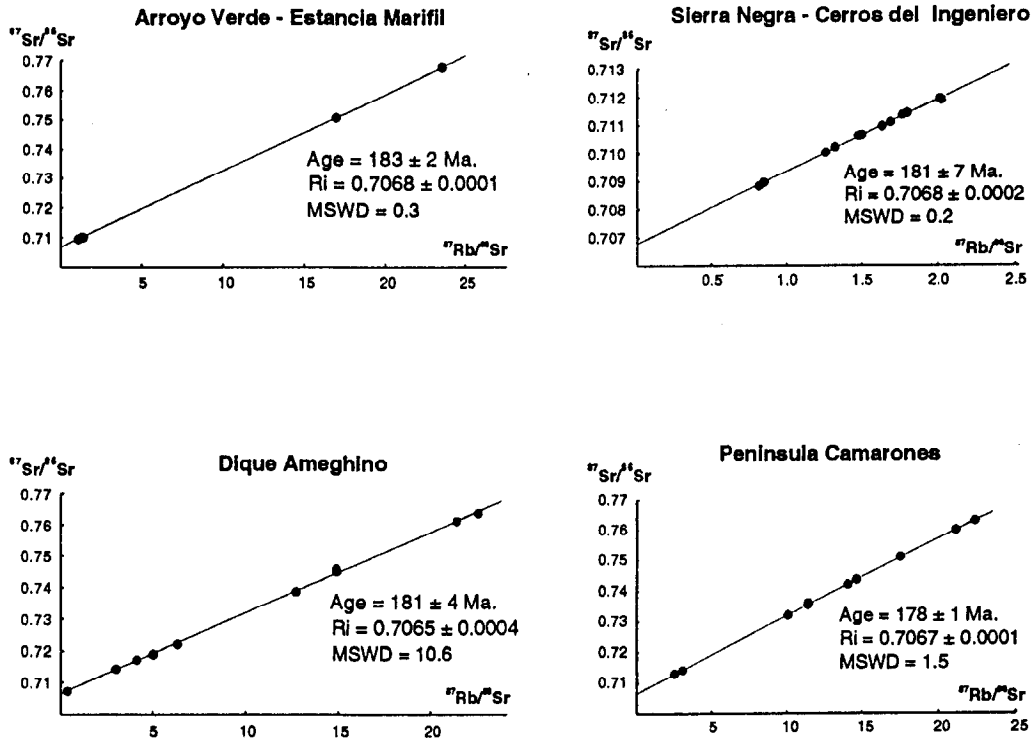


Fig. 2: Rb-Sr whole-rock isochrons for the sampled sections of the Marifil complex.

**CONCLUSIONS**

These results lead to two major conclusions with regard to this part of the volcanic province. Firstly, the volcanic rocks were formed during a short and well-defined igneous event 180 Ma ago,

rocks, but were derived, directly or indirectly, from an isotopically uniform source such as enriched lithospheric upper mantle without the involvement of other materials.

The most probable petrogenetic scenarios are differentiation at depth of less-evolved primary magmas, followed by partial melting of the residual mantle, and subsequent differentiation of the resulting melt. Further work is in hand to evaluate these alternative scenarios.