



Images of intraplate volcanism: The upper crustal structure below Tariat volcanic zone, Mongolia, imaged with magnetotellurics

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West-central Mongolia is characterized by the Hangai Dome, and intra-continental plateau, and by dispersed, low-volume, intraplate, basaltic volcanism. The results of a recent broadband magnetotelluric study across the young volcanic zones of Tariat and Chuluut are presented. The magnetotelluric data are used to generate high-resolution electrical resistivity models of the crust, and, in combination with petrological data, can give insights into the structure of this region.

Thin, vertically elongated features imaged in the upper crust may represent hydrothermal alteration from ancient and transient conduits of hot magma. These anomalous features are spatially associated with the surface expressions of volcanism (volcanic cones and calderas) and modern-day hydrothermal activity (hot springs).