**Aseismic Zone in Southeastern Central Range of Taiwan**

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**Abstract**

This high attenuation zone happens to coincide with the aseismic zone, suggesting that the aseismic zone may be due to high geothermal and partial melting effects of a very active collision orogeny. The area is also marked by other geological and geophysical indicators in support of this interpretation. In recent research of the high magnetic anomaly also corresponds to the aseismic zone from seismological observations (Lin, 2000) beneath southern Central Range. The aseismic zone is within a region of low Vp/Vs, around 1.6 (Kim et al., 2013), and a region of low Qp and Qs has the low Qs/Qp around 0.75 (Lee et al., 2010). The present work also indicated shallow Curie point depth is 9–10 km, high geothermal gradient about 60-64。C/km, and high heat flow value 200-240 mW/m2. These results all relate the possible extra-heat and dry tectonic structures by plate collision and subduction (Lin, 2000). The Curie point depth map shows the parallel strikes along the Longitudinal valley fault in eastern Taiwan. The suture belt between Philippine Sea Plate and Eurasia Plate shows shallow Curie point depth (10–11 km) with higher geothermal gradient and higher heat flow values that indicate violent plate activity.

**References**

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