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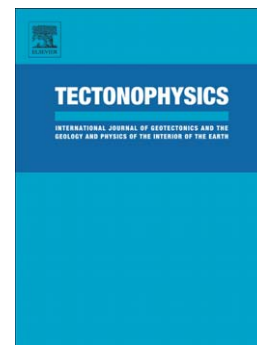
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Lateral variations of crustal structure beneath the Indochina Peninsula

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Abstract

Crustal thickness (H) and V_p/V_s (κ) measurements obtained by stacking P-to-S receiver functions recorded at 32 broadband seismic stations covering the Indochina Peninsula reveal systematic spatial variations in crustal properties. Mafic bulk crustal composition as indicated by high κ (>1.81) observations is found to exist along major strike-slip faults and the southern part of the Peninsula, where pervasive basaltic magmatism is found and is believed to be the results of lithospheric thinning associated with the indentation of the Indian into the Eurasian plates. In contrast, crust beneath the Khorat Plateau, which occupies the core of the Indochina Block, has relatively large H values with a mean of 36.9 ± 3 km and small κ measurements with an average of 1.74 ± 0.04 , which indicates an overall felsic bulk composition. Those observations for the Khorat Plateau are comparable to

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