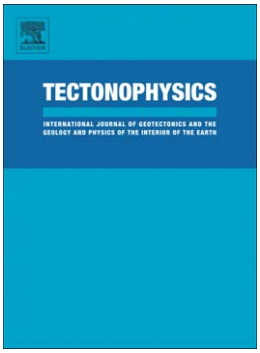

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Lateral variations of crustal structure beneath the Indochina Peninsula

Youqiang Yu*[a], Tran D. Hung[a,b], Ting Yang[c], Mei Xue[a], Kelly H. Liu[d], Stephen S. Gao[d]

[a]*State Key Laboratory of Marine Geology, Tongji University, Shanghai 200092, China. Email: yuyouqiang@tongji.edu.cn*
[b]*Faculty of Oil and Gas, Hanoi University of Mining and Geology, Hanoi 100000, Vietnam.*
[c]*School of Oceanography, Southern University of Science and Technology (SUSTech), Shenzhen, Guangdong 518055, China.*
[d]*Geology and Geophysics Department, Missouri University of Science and Technology, Rolla, Missouri 65409, USA.*

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

*Corresponding author; yuyouqiang@tongji.edu.cn