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## New paleomagnetic results from the Mesozoic rocks of the Indochina block

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In most of the Pangea reconstruction models reported, the Indochina block generally was attached to the South China or travelled together with it in the convergence of Eastern Asia blocks, since the lack of reliable paleomagnetic data. Here we present new paleomagnetic data of Upper Triassic sediment rocks from the Indochina block in Thailand, and recalculate paleomagnetic data reported by different authors. We collected the Triassic samples from the Huai Hin Lat and Nam Phong formations in 13 sites in the northern Thailand.

Totally, 13 sites from the Huai Hin Lat formation are included in the calculation of the formation mean direction  $D_g/I_g = 21.4^\circ/38.1^\circ$ ,  $k_g = 19.5$ ,  $\alpha_{95} = 9.6^\circ$  before and  $D_s/I_s = 43.0^\circ/48.0^\circ$ ,  $k_s = 47.4$ ,  $\alpha_{95} = 6.1^\circ$ ,  $N = 13$  after bedding correction. A pre-folding characteristic magnetization is suggested by the positive fold test result derived from the Huai Hin Lat formation, and thus implies a primary remanence of the Norian Stage Upper Triassic rocks. A new Nam Phong formation mean direction derived from 11 sites is  $D_g/I_g = 36.5^\circ/31.3^\circ$ ,  $k_g = 14.7$ ,  $\alpha_{95} = 12.3^\circ$  before and  $D_s/I_s = 36.4^\circ/37.8^\circ$ ,  $k_s = 68.5$ ,  $\alpha_{95} = 5.6^\circ$ ,  $N = 11$  after bedding correction. The two formation mean directions correspond to the magnetic pole positions,  $Plat./Plon=48.7^\circ N/165.9^\circ E$ ,  $A_{95}=7.2^\circ$  and  $Plat./Plon=55.2^\circ N/178.0^\circ E$ ,  $A_{95}=5.9^\circ$ , respectively. A remarkable tectonic movement ( $\sim 8^\circ$  southward) of the Indochina block from the age of the Huai Hin Lat formation to the Nam Phong formation is suggested in this study, indicating the Indochina block locates in the west of the South China block at the Norian Age Late Triassic and moved to a new position which is quite near the present at the Rhaetian Age of Late Triassic to Early Jurassic. Moreover, U-Pb age spectra of detrital Zircon from the two formations indicates the sediment environments and material sources changed significantly, implying a great tectonic movement happened during the Epoch-I of Indosinian movement.

