



The drift history of the Indochina Block from Gondwana to Eurasia, constraints from paleomagnetism

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The Late Paleozoic to Mesozoic paleopositions of Indochina Block has long been debated, which is regarded as one of the biggest problems unresolved in the reconstruction of Eastern Asian blocks in the Gondwana or Pangea Supercontinent. We reported new high quality Early-Middle Permian and Late Triassic paleomagnetic results from Thailand, the central of Indochina, in the aiming to constraint the drift history of Indochina from Gondwana to Eurasia. Following detailed rock magnetic and paleomagnetic analyses, new datasets with positive fold tests and reversal tests are obtained, and an Early-Middle Permian (ca. 280Ma) paleomagnetic pole is suggested to be located at $34.1^{\circ}\text{N}/331.7^{\circ}\text{E}$ ($A95 = 5.7^{\circ}$), corresponds to a paleolatitude of $\sim 21^{\circ}\text{S}$ at the center of study area (15°N , 101°E); and the Norian of Late Triassic (ca.220 Ma) pole is $48.7^{\circ}\text{N}/165.9^{\circ}\text{E}$ ($A95=7.2^{\circ}$), indicating the Indochina block was located at $\sim 26^{\circ}\text{N}$. The two key poles indicate the Indochina drift for ~ 5000 km from the Gondwana region to the south margin of the Eurasia during Early-Middle Permian to Late Traissic. And its averaged movement rate relative to Gondwana is calculated to be $\sim 4.5\text{cm/yr}$.