

Paleomagnetic study of Cretaceous redbeds from the central part of the South China Block

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Several Cretaceous paleopoles have been reported from western and southeastern part of the South China Block. Cretaceous redbeds are widely distributed in Yichang, Hubei province, the central part of the South China Block. However, Cretaceous paleopole of Yichang area has not been reported. Because, it is difficult to apply the field test for Cretaceous strata with shallow tilting (generally less than 15 degree) in Yichang area. In this study, we strategized to collect paleomagnetic samples from both limbs of anticline or syncline with variation of tilting.

The total thickness of the Cretaceous terrestrial sequence is over 4000 m in Yichang area. Paleomagnetic samples were collected from Lower Cretaceous Wulong formation and Upper Cretaceous Paomagang formation with a portable gas-power drill, and oriented with a magnetic compass.

Natural remanent magnetizations were measured with a 2G cryogenic magnetometer. After detailed thermal demagnetization analysis, a characteristic remanent magnetization component was isolated. We are now measuring remaining samples in order to obtain more reliable results.