

Geodynamic mechanism and time effect on transformation from Tethys and paleo-Asian tectonic domain to circum Pacific domain in East China

¹GANGUO, WU, ¹DA, ZHANG and ²BAILIN, CHEN ¹China University of Geosciences, Beijing, China; ²Institute of Geomechanics, China Academy of Geosciences, Beijing, China

East China is a major component part of circum Pacific tectonic domain. The significant change in East China since Mesozoic era is forming of thin crust and thin lithosphere. This important event is much relative to transformation of tectonic domain in this area, involving Tethys located in South China and paleo-Asian tectonic domain situated in North China. Through deepgoing study on compounding place of the two tectonic belts across China(including Nanling latitudinal belt and Yanshan intra-continent orogenic belt) and the circum Pacific continent margin in East China, and in view of systematic analysis on structural deformation, tectonic-magmatic-metallogenic belts, lithofacies-paleogeography, deep geophysical characteristics, we can determine that the transformation of tectonic domain in East China exists obvious inhomogeneity in three dimensional space and shows time difference. Tectonic system and mineralization have been remarkably superimposed, compounded and reformed, namely inheritance and newbourness. This transformation lasted from at the end of early triassic epoch to early and middle Jurassic epoch, And weakened from the East to the West. The structural line direction changes from EW to NE-NNE. Dynamic mechanism of transformation corresponds to frequent change of stress field and activity of deep mantle.