ON THE MESOZOIC CONTINENTAL ACTIVATION AND ITS MULTIPLE DYNAMICS SYSTEM

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Mesozoic continental activation is an important typical problem in understanding the intracontinental deformation and tectonic evolution. a series of interwoven array of back-thrust and opposite-thrust structural belts was distributed over the East Asia crustobody tectonic region. It is indicated that at least two sets of tectonic systems of inverse thrust, shear and nappe structures in opposite direction developed. One of them occurred in the early Mesozoic (T3-J3) with northwest-trended polarity of tectonic intensity and right-rotated shearing nature. The other formed in the late Mesozoic (K1-K2) with southeast-trended polarity and left-rotated shearing nature. Correspondingly, more mantle compositions were involved in the igneous rocks during the late one, while the igneous rocks contained more crustal ingredients in the early stage. The complicated tectonic deformation and magmatism and the transformation of their natures would be the result of multiple movement deformation during different evolution period of crustoblock ,they couldnot be well explained by previous hypothesis of single subduction and collision.So we propsed the synthetic model affected by composition, accretion-collision ,transformation and superimposition of multiple dynamics system, which includes deep-seated activity in lithosphere, westward subduction of the Pacific crustobody, eastward subduction of the Tethys crustobody and sideward extrusion of the margin orogenic belt, et al. Among them, the original cause of Mesozoic continental activation may be thinning-thickening process of lithosphere brought into by setting extrusion-type or diffusation-type mantle creep-flow, others would be the external factor inducing crustobody movement and deformation.