

Disintegration of Huaxiong Block at the Southern Margin of North China Platform

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Huaxiong Block at the southern margin of North China Platform from west to east can be further divided into 4 terranes: Xiaoqinling, Xiaoshan, Xiongershan and Rushan terrane, separated by NE-NNE direction fault between them. The boundary faults among the terranes are large deep faults which developed under the deep structural settings such as Crust-Mantle transitional zone and have been active with new and old combined components. The terranes different in terms of stratigraphic sequence, rock assemblages, major elements and REE of rocks of the basement strata, magmatism, metallogensis and geophysics. The basement strata of Xiaoqinling terrane was migmatized strongly with a character of enriched in sedimentary rocks, developed multiphase-multigenesis granites, a large number of Au-bearing quartz veins, the volcanics are separately similar to Condie's TH₁, •-type andesite and F₁-type dacite-rhyolite. That of Xiaoshan terrane are poor in strata thickness, ultramafites, metamorphic degree, magmatism and gold deposits, and crust basicity. That of Xiongershan terrane have large proportion volcanics which are separately similar to TH₁ and •-type, developed Yanshanian transformation granites, dense syntexis porphyries and explosion-breccia tubes and related Au-Mo deposits. That of Rushan terrane includes more carbonate rocks and BIF, and had weak magmatism. The terranes that the divergent, small-range volcanic activity centres formed amalgamated together at 1850±150Ma.