

The Ore Deposit Control by Graded Fault Network in Southeast China

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The mesozoic left lateral strike-slip shearing movement of East Asia leads to formation of a fault network system, which consists of the newborn NNE trending fault zones and the preexisted NE, NW and EW trending fault zones. The fault network system controls localization of W-Sn-Cu-Au mineralization in Southeast China. In the first grade fault network, interval between parallel major fault zones varies in 40-60km. Intersections of major fault zones determine location of medium to large scale and part small scale ore deposits and related intrusive bodies. While in the second grade fault network, restricted by major fault zones, for example, in the east of prov. Zhejiang consists of secondary fault zones with interval of 5-6km. Intersections of secondary fault zones or inter sections of secondary fault zones with one direction major fault zones usually control only ore occurrences and some small scale ore deposits and related intrusive bodies. Highly deformed blocks restricted by major fault zones and intersection of 3 or more direction major fault zones, overlapped on basement amalgamation suture zone, might control ore concentration region and super-large scale ore deposit.