

Ore-bearing basin of Cathaysia

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The Cathaysia region - the vast (about 2 000 000 sq.km) ore province of Southeast China has very rich mineral deposits. The main ore deposits of this region were formed at the basins at the bottom of paleoceans and paleoseas.

Here there are many unique deposits of tungsten (Shizhuyuan, Yaogangxian, Xingluokeng) and antimony (Xikuangshan). In these deposits the tungsten is accompanied by significant quantities of molybdenum, tin and bismuth. The stratiform molybdenum scarnoid deposit Jinduicheng, Nannihu-Sandaozhuang and the tin ore field Gejiu and Dachang have significant mineral reserves. In a province Guizhou in Cambrian dolomites and limestones are located mainly numerous large stratiform deposits mercury (Vanshan group, Muyouchang, Dadongla, Baimadong etc.) and large phosphoritic basin. In the Cathaysia region the large deposits of copper (Dabaoshan), lead and zinc (Fankou, Kangjiawan etc.) are known. Here there are main uranium deposits of China and small-scale deposits of diamondiferous dikes of kimberlites.

The theory of plate tectonics has allowed to establish, that paleozoic sedimental sequences of the Cathaysian orogen were formed at the bottom of ocean or at the bottom of large spreading marginal sea Banxi, and - after collision of microcontinents Yangtze and Huanang and closing of this ocean - in Nanpanjiang and Guananhai sea basins.

The author has used and partially improved geodynamic model of the evolution of the Cathaysian lithosphere, offered Hsu et al. (1988). Geodynamic model of evolution, the geodynamic settings and sequence of their changes were determined. For a number of major deposits of the Cathaysia the author has offered the new understanding of their genesis.