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大别造山带地壳泊松比结构与超高压变质带—来自宽角反射与近垂直反射剖面的启示 [点此下载全文](#)

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摘要:

综合宽角反射、近垂直反射的探测结果和有关地质资料,对大别造山带地壳结构和超高压变质带研究显示:大别造山带地壳具有层块结构特征。沿安义—庄墓剖面,上地壳有7个弹性块体,中地壳有5个,下地壳有4个。扬子与华北地块的主缝合带是超高压变质带,扬子地块与大别造山带的现今分界线是与郟庐断裂相交的太湖—马庙断裂,磨子潭—晓天断裂是大别造山带的北界,北淮阳构造带呈楔状向下插入,它与华北地块的分界是肥中断裂。郟庐断裂在中、上地壳近于直立,下地壳向西倾斜。超高压变质带的厚度为5—7km,产状向北插入到北大别块体之下,折返过程是构造就位,不是大别山的均匀抬升,折返的主运动面是水吼—五河高温剪切带。

关键词: [大别造山带](#) [弹性特征](#) [层块结构](#) [超高压变质带](#) [缝合带](#) [地壳结构](#)

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Abstract:

On the basis of the results of wide-angle and subvertical seismic reflection sounding and related geological data, the authors studied the crustal structure and ultrahigh-pressure (UHP) metamorphic zone in the Dabie orogenic belt. The study indicates that the crust under the Dabie orogenic belt has the features of the layer-block structure. According to the characteristics of the Poisson's ratio structure of the crust, 7, 5 and 4 elastic blocks are distinguished separately in the upper, middle and lower crust from south to north along the Anyi-Zhuangmu profile. The principal suture zone between the Yangtze and North China blocks is an UHP metamorphic belt, the present boundary between the Yangtze block and the Dabie orogenic belt is the Taihu Lake-Mamiao fault which intersects with the Tanlu fault, and the Mozitan-Xiaotian fault is the northern boundary of the Dabie orogenic belt. The North Huaiyang tectonic belt plunges as a wedge downward into the upper and middle crust and its boundary with the North China block is the Feizhong fault. The Tanlu fault is subvertical in the middle and upper crust and dips to the west in the lower crust. The UHP metamorphic belt is about 5 - 7 km thick and plunges toward the north beneath the northern Dabie block. The process of exhumation was tectonic emplacement rather than homogenous uplift. The main kinematic surface might be the Shuihou -Wuhe high-temperature shear zone.

Keywords: [Dabie orogenic belt](#) [elastic characteristics](#) [layer-block structure](#) [attitude of the UHP metamorphic belt](#) [main suture zone](#)

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