

杨兴科,刘池洋,韦振权,孙冬胜,鲁兵,高凤亮.论羌塘地块结构的不均一性和深部信息[J].地质学报,2003,77(3)

论羌塘地块结构的不均一性和深部信息 点此下载全文

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基金项目: 国家重点基础研究发展规划项目(编号 G1998040801-5),中国油气集团公司青藏"九五"科技工程:

DOI:

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摘要:

根据藏北羌塘地区最新地质、地球物理资料(以MT为主)综合分析,对比西部和东部综合剖面各单元结构料特征明显。西部隆起区结构独特,浅中部与深部结构有别,存在一南倾低阻异常带。西中部剖面南羌塘坳陷与西阻层呈双层。其他地段和东部剖面均呈中隆两坳格局,壳内低阻层仅一层。中部隆起带的深部总是对应一直立极陷规模大,基底埋深大,横向分块明显,北中段热力改造较强,深部存在1~2个极低阻异常区带。总体上表现为分圈层,MT显示壳内低阻层顶界面深度不一,横向变化大,低阻层呈①直切式:从深50~60km处呈柱状直接切离云状:从深100km处呈宽约50km的蘑菇云状升入到地下10km;③上下叠置三明治式:以双层低阻层或多层高阻体基底电阻率显著高于北部,基底构造分三块:西南部、中东部和东部。这种结构不均一既有其深部构造作用控串改造作用的叠加。

关键词: 羌塘 地块结构 不均一性 深部信息 青藏高原 热异常柱

On Structural Anisotropism of the Qiangtang Massif and Deep Information Download

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Abstract:

Based on synthetic analysis of recent geological and geophysical data (mainly from MT surve; structural features between the west and east composite profiles, the authors have found very obv the structure in the Qiangtang massif. The west uplift has a special structure with a south-dippi zone. Its shallow and deep layers have different features. In the west and central profile, the s Qiangtang depression is similar to the deep structure of the west uplift, featuring a double-laye resistivity zone. The other areas and the east profile all have a form with an uplift in the midd the two sides with only vertical low-resistivity zone. The deep layer of the middle uplift always very low-resistivity zone. The northern Qiangtang depression has a large-scale downwarping low-rebasement depth and obvious horizontal blocks. The northern and central parts of this area have 1^{\sim} with a strong thermal reformation feature. In general, this area has the following structure: in can be divided into zones or belts, in the east-west direction divided into blocks or segments, a spheres or layers. The top boundary of the intracrustal low-resistivity layer has different parts are three types of low-resistivity layers ?(1) straight-cutting form, i. e. the low-resistivity 1; directly cuts the high-resistivity bodies on both sides from a depth of $50^{\circ}60~{\rm km}$ up to the ground the low-resistivity layer has a mushroom shape, about 50 km wide, from 100 km up to 10 km undergr form, i. e. double low-resistivity layers are interbedded vertically with multiple high-resistivi the south part of the basement is clearly higher than that of the north part. The basement can be southwest part, middle east part and east part. The anisotropic feature of the area is controlled process with probable several thermal-abnormal zones and the late-stage reformation process.

Keywords:Qinghai-Tibet plateau Qiangtang massif <u>crustal structure</u> anisotropism deep structur