THE TYPES OF STRUCTURE OF THE EARTH'S CRUST IN TIEN SHAN

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Three types of the crust structure beneath Tien Shan was determined by seismic tomography. I type is characterized by a classical structure: gradual increase of seismic waves speeds from a top to the lowest part. Here the upper crust with thickness till 18-20 km and Vp up to 6,1 km/sec, the middle crust (up to 5 km) with Vp 6,1-6,4 km/sec, and the very thick (up to 30 km) low crust with Vp 6,4-7,4 km/sec are distinguished. Last is subdivided into upper part (Vp 6,4-6,8 km/sec) and low part (Vp 6,1-6,4 km/sec). II type of the crust structure is remarkable for smaller density of substance, Vp6,3 km/sec, absence of substance of the low crust, but very big thickness (30 km) of the middle crust and presence of wave-guide in the basis of the crust. III type of the crust structure has complicated structure: the upper crust (8-15 km of thickness), the middle crust (up to 15 km), where inside there are inclusions of high density bodies with Vp 6,4-6,5 km/sec, and the low part of the crust (20 km), where the upper part (Vp 6,4-6,8 km/sec) and the low part (Vp 6,8 km/sec) are determined. In the basis of this type of the crust is determined thick (15 km) layer of wave-guide. High-speed above wave-guide part of the crust has the large rigidity and can be considered as a microplate.