

GREAT DOMAL UPLIFT OF THE CENOZOIC CONTINENTAL MOUNTAIN BELTS

UFIMTSEV, G. F.

In the structure of continental mountain belts a role of great domal uplifts is significant. The Khangay and Verkhoyansky ridges, Kamtchatsky Sredinnyi (Median) range, the Pyrenees and Cordillera Merida may exemplify such forms. The generalized relief of these uplifts may be described as ellipsoidal surfaces with large radii of curvatures. Isometric and elongated domal uplifts are peculiar to rejuvenated mountains, and linear uplifts are typical for young mountain belts. Most of the regions of domal uplifts are rich in intrusions of granitoids, which form upper parts of lithosphere with low densities. According to geophysical data, the bases of such zones may occur as low as 100 km. The domal uplifts are likely to form due to isostasy. In many cases they began to form simultaneously with intrusion of granitoids. During the evolution of the great dome epochs of conerosional development alternate with epochs of condenudational development that resulted from changes in time of rates of isostatic uprisers. The altitudes of domal uplifts remain greater than the altitudes of the adjacent regions both in the epochs of heigher tectonic activity and in the periods of relative quiescence and planation. That is why major watersheds are located at the central parts of domal uplifts. Another feature of their development is their expansion in time due to uprise of adjacent structural elements, submontane and intermontane depressions including.