

Pressure and movement in layers of the Earth

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The analysis of the mechanism of catastrophic earthquakes has shown that tectonics of plates in a combination to other kinds of movement are sources of compressing and stretching pressure in layers of the Earth.

The theoretical accounts have shown, that the change of the magnetic moment of the Earth at the expense of displacement can result in change of radius of the Earth on 210 cm, that will make horizontal deformation in limits $0.2 \cdot 10^{-10}$ km on surface and $2 \cdot 10^{-6}$ km in a nuclear part of the Earth. At reduction or increase of radius of the Earth on 0.05-0.0355 cm per year the displacement in various layers of ground can be within the limits of $1.9 \cdot 10^{-2}$ - $7.8 \cdot 10^{-4}$ cm.

Change of speed of the Earth rotation, the displacement of its axis of rotation can result in deformations about 10^{-7} and accordingly it will result in change of speed of increase of a pressure on joints tectonic plates, to change of density rock in various layers for geological time. For $4.6 \cdot 10^9$ years density of rocks in different layers can vary in the following limits: in sedimentary cover with 0.6 - 2.5 g/cm^3 - in a nuclear part with 11.1 - 13.6 g/cm^3 . the average density of the Earth could be 2.93 g/cm^3 at the prehistoric era .

The given data can add our idea about the mechanism of formation of a pressure in the Earth, about character of creation of horizontal and vertical movements of plates and other kinds of formation of layers of the Earth.