



Some Characteristics of Regular Fracture-lineament Global Network

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Existence of regular fracture-lineament global network (FLGN) (or regmatic network), was known for lands of the Earth in many regions.

Authors made more than 20 000 measurements of lineaments and faults azimuths of the lineaments and fractures on geographic, geologic and tectonic maps for number of regions and for all Earth. Later all data files have subjected by the factor analysis.

We detect existence FLGN in the Ocean bottom.

Statistic relation between fractures and lineaments directions was established. Control of large-scale lineaments by fractures within the competence of the FLGN was based.

Predominating strike directions of line elements of FLGN are: 0 - 10°, 80 - 90°, 30 - 60°, 120 - 150°.

FLGN have attribute of fractality. One-direction lines elements of the FLGN alternate with constant step within the competence of defined scale.

FLGN was formed under a continuous stress, which exist at least throughout the entire earthcrust thickness and during the time of at least the entire Phanerozoic. This stress was generated by a complex of forces: rotational, pulsating and, possibly, some others in the earthcrust. All of these forces are symmetric to the Earth rotation axis and some of them also to the equator. Rotation and pulsating processes of the Earth are the main factors of these forces and, hence, formation of the fracture- lineament network.

FLGN determines the most favorable place for fracturing, formation of fracture-controlled landforms, volcanic and seismic processes (geohazards), fluid flow and ore-formation (minerals).