

On a quasicrystal model of the earth,  
and prognostication of the global system  
of oil and gas fields

<sup>1</sup>Khachaturov V.R., <sup>2</sup>Galiulin R.V., <sup>1</sup>Bobylev V.N.  
<sup>1</sup>Computing Center Rus.Acad.Sci., Moscow, Russia;  
<sup>2</sup>Inst.Crystallogr.Rus.Acad.Sci., Moscow, Russia.

1. It is supposed that the earth develops as a crystal (all promises for this are present: high temperature and pressure at the earth's center, and vacuum surrounding the earth and near space).

2. The universe of vertices and edges of the earth's crystal structure produced by vertices and edges of fixed elementary cells of the earth's crystal is a singular (crystal) fractal of the earth, taken for approximation to the true fractal of the earth.

3. The crystal growth initiates global geological processes in the earth's crust (rifts, faults, splits, etc.) according to the changing shape of the growing crystal.

4. Oil and gas as well as other earth's fluids should be searched in the places near by vertices and edges of the earth's crystal fractal.

5. Considering the element composition of the earth to be known, we determine by our own method all the crystal structures on which this composition could be realised, the Fedorov groups and the possible elementary cell types.

6. Among these structures we discover that for which the corresponding crystal fractal is the closest to all of known (basic) fields of oil and gas. Then to some fractal vertices and edges gotten into the earth's crust will be correspond none of the known fields. It is here that we propose to search for oil and gas deposits, where the fractal form may be specified by projecting special geoinformation onto the crystal surface.