

# Vladislav Morozov

## Education:

Geophysical Faculty of the S. Ordzhonikidze Moscow Geological Prospecting Institute (1962).

## Foreign languages:

English.

## Academic titles:

- Member of the Academy of Mining Sciences;
- Member of the World Ecological Academy;
- Member of the Academy of Science and Business Integration;
- Professor in “Physical processes of mining” (1997).

## Scientific degrees:

- Ph.D in physical and mathematical sciences (1970);
- Doctor of Engineering (1990).

## State awards:

- Medal “850th Anniversary of Moscow” (1997).

## Main scientific results:

- System of stations for registration of telluric currents and the Earth’s magnetic field in Kamchatka, the Kuril and Comandore Islands (1962–1970);
- Discovered a phenomenon of abnormal changes in the field of telluric currents before earthquakes of energy classes  $> 12$  as the precursors of strong tectonic earthquakes in the Kuril-Kamchatka seismic zone. (1970);
- Developed the elements of the kinetic theory of strength of solids applied to rocks and mountain ranges;
- Established a correlation between the activation energy of minerals and rocks destruction with enthalpy of rock-forming minerals;
- The theory of destruction of rocks under the influence of rock pressure and temperature, including the macro-polar theory of rock deformation as granular anisotropic media;
- The theory of processes of destruction of mines and wells in addition to RW disposal;
- The theory of deformation and a software system for calculating stress-strain state of rock mass as block heterogeneous media in the tectonic stress field;
- The concept of global technogenesis based on notions of differential crystallization processes in mantle melts, depending on the thickness of the lithosphere.

## Practical results:

- State standards (in collaboration) to determine the physical and mechanical properties of rocks. (5 standards);
- Norms and rules of the Russian Federation (co-authored) on safety of the nuclear fuel cycle, including nuclear power plants;
- Copyright certificates for underground mining works;
- Recommendations for the development of deep uranium deposits in the Russian Federation;
- Geodynamic polygons of the nuclear fuel cycle. (“Radon”, Krasnoyarsk-26).

**Appointments:**

- Head of the laboratory “Physical methods of destruction of rocks” of Moscow State University;
- Head of Laboratory, VNIIPromtehnologii (research institute);
- Deputy Director for Science of GC RAS;
- Head of Geodynamics laboratory of GC RAS;
- Member of Scientific Council of VNIIPromtehnologii;
- Member of Scientific Council of IPE, Academy of Science of the USSR;
- Member of Scientific Council of GC RAS;
- Member of Scientific Council of MSU.

**Teaching experience:**

- Lectures in MSU “Physical processes in mining” (1975–1977);
- Lectures in the Open University “Geoecological safety of mining” (2008–2009);
- Head of base chair of GC RAS (2010–2012);
- Chair of the MSU-MISiS State Examination Board (2000–2015);
- Scientific supervisor of 6 Ph.D and one doctoral theses.

**International activity:**

- Project manager of the international project “TOXICAL” (the Russian side) (2002);
- Project manager of the ISTC №2764 project “Development of information technology, sustainability assessment of the geological environment during prolonged RW disposal in geological formations” (2006).

**Publications:**

Author of 5 monographs and more than 300 works published in the Russian and foreign journals.