

SOLUTION of the  
IX International Symposium  
PROBLEMS OF GEODYNAMICS AND GEOECOLOGY  
OF INTRACONTINENTAL OROGENS

Bihskkek city, Kyrgyz Republic

June 28, 2024

The Ninth International Symposium on the problems of modern geodynamics and geoecology (June 24–29, 2024, Bishkek city, Kyrgyz Republic) (hereinafter referred to as Symposium), dedicated to the 300<sup>th</sup> anniversary of the Russian Academy of Sciences and the 45<sup>th</sup> anniversary of the Research Station of RAS (was celebrated in 2023). Symposium has become a representative international scientific event held on the basis of the Research Station of the Russian Academy of Sciences in Bishkek city (RS RAS) and the International Research Center - Geodynamic Proving Ground in Bishkek (IRC-GPG).

The Symposium was held in a hybrid format: 112 reports (53 in-person and 59 online) and 18 posters were presented at plenary and sectional sessions. 167 scientists and specialists from seven countries (Russian Federation, Kyrgyz Republic, Republic of Kazakhstan, Republic of Uzbekistan, Republic of Tajikistan, Republic of Belarus) took part in the Symposium.

The topics of the Symposium were quite diverse and related to the main areas of fundamental research in the field of Earth sciences:

- The structure and evolution of the Earth's crust and upper mantle in point of view of the modern geodynamics concepts. Instrumental methods for studying the lithosphere of intracontinental orogens: heterogeneities, physical nature of boundaries.
- Stress-strain state of the Earth's crust, issues of its block structure and self-similarity of geodeformation processes. Seismotectonics of intracontinental orogens zones.
- Comprehensive monitoring of seismically active areas. Issues of interaction of geospheres, including the influence of physical fields on endogenous processes.
- Electromagnetic methods in seismically active regions study and in geodynamic processes monitoring. Development of electromagnetic data inversion methods.
- Seismic hazard assessment, regional studies of seismic regime.
- Environmental and social consequences of endogenous and exogenous geological processes, forecast of catastrophic events (earthquakes, landslides, landslides, etc.).

Participation of young researchers (46 people) in the Symposium allowed them to become familiar with modern scientific achievements in the field of geosciences, as well as receive the necessary consultations from leading experts for further work.

As part of the Symposium program, a field geological and geophysical excursion to the Issyk-Ata gorge took place under the guidance of RS RAS leading specialists.

A collection of abstracts was published for Symposium opening date:

Problems of geodynamics and geoecology of intracontinental orogens: Abstracts of the IX International Symposium, Bishkek, June 24 - 29, 2024 - Bishkek: RS RAS, 2024. - 474 p. ISBN 978-9967-12-978-0

Based on the results of the reports and working discussions presented at the scientific sessions, the Symposium participants consider it necessary:

1. Separately note the achievements in the development of domestic hardware and software within the framework of import substitution for geophysical research, presented by LLC VEGA (St. Petersburg), St. Petersburg branch of the Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation of the Russian Academy of Sciences (St. Petersburg), NIRFI NNU (Nizhny Novgorod), LLC North-West and the Research Station of RAS in Bishkek city.

2. Emphasize that the reports presented at the Symposium demonstrated that over the period following the Eighth International Symposium, a high level of theoretical, scientific, methodological and applied developments in various areas of multidisciplinary research on geodynamics and geoecology of the Tien Shan and adjacent areas has been maintained. New interesting materials and results were obtained on the geological and geophysical deep structure and geodynamics of intracontinental orogens, modern movements of the earth's crust based on observations by means of ground and space geodesy, integration of geological and geophysical data using modern information technologies, etc.
3. Particularly highlight the importance and prospects for the use of new information technologies for processing and analyzing big data based on machine learning methods, including artificial neural networks, primarily in relation to the results of long-term electromagnetic monitoring of the geodynamic activity of the earth's crust in the region, carried out by the Research Station with using a powerful electric pulse system ERGU-600 on the territory of the Bishkek geodynamic test site.
4. To note the need to expand and develop comprehensive geodynamic studies of the Central Asian region for the territories of Uzbekistan, Tajikistan, Turkmenistan and Kazakhstan with the active involvement of representatives of the geological and geophysical community of these countries in these works.
5. Apply to the Ministry of Education and Science of Russia and the Ministry of Foreign Affairs of the Russian Federation with a proposal to allocate targeted funding to solve the problems of seismic, electromagnetic, geoecological monitoring and identify the dynamics of geophysical and geomechanical characteristics of the Central Asian region in connection with seismic hazard.

The Symposium participants decided:

1. To recommend holding the Tenth International Symposium "Problems of Geodynamics and Geoecology of Inland Orogens" in Bishkek in 2027.
2. To ask the Organizing Committee of the Ninth International Symposium and the Research Station of RAS to contact the editors of "Geodynamics and Tectonophysics" journal for the publication of selected works presented at the Symposium.
3. To ask the Organizing Committee of the Ninth International Symposium and RS RAS to organize the publication of the main materials of the Symposium in 2025 (Collection of materials of the Symposium).
4. Support the proposal of the Symposium participants to distribute files of presentations of reports presented during the Symposium.
5. Express gratitude to all participants of the Symposium for their active participation in the event.
6. Express gratitude to the Organizing Committee of the Symposium and the staff of the Research Station of RAS in Bishkek for the work done in organizing and successfully holding the Symposium.
7. Note the important role of the Russian Science Foundation (RSF) in supporting scientific research, the results of which were presented by the Symposium participants.

Deputy Chairman of the Organizing Committee  
of the Symposium

Anatoly Rybin

Academic Secretary of the Symposium

Olga Zabinyakova