

To
University of Mining and Geology "St. Ivan
Rilski", Sofia

Subject: competition for the academic position of "professor" in professional field 4.4. "Earth Sciences", scientific specialty "Methods and Techniques of Geological Research" at the University of Mining and Geology "St. Ivan Rilski", announced in issue 41 of 05.05.2026 of the State Gazette

REVIEW

From: Prof. Dr. Radoslav Alexandrov Nakov, Geological Institute - BAS, approved as a member of the Scientific Jury by order RD 13-26/01.06.2026 of the Rector of the University of Mining and Geology "St. Ivan Rilski"

Introduction. The review was prepared in accordance with: the Act on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for the Implementation of the Act on the Development of Academic Staff in the Republic of Bulgaria and the Rules for Holding Academic Positions at the University of Mining and Geology "St. Ivan Rilski".

The only candidate in the competition is Associate Professor Dr. Ivan Dimitrov Ivanov (Ivan Dimitrov) from the Department of Geology and Geoinformatics of the Faculty of Geology and Exploration.

According to the attached certificate, he meets (exceeds) the minimum requirements for registration in the National System – NACID for holding the academic position of "professor", which is a prerequisite for his documents to be reviewed and evaluated in accordance with Art . 12. (1) of the Rules for holding academic positions at the University of Mining and Geology "St. Ivan Rilski" .

1. Presentation of the candidate in the competition

Associate Professor Dr. Ivan Dimitrov Ivanov (Ivan Dimitrov) was born in 1968th. In 1987th, he graduated from the “Temelko Nenkov” Mining Technical School (High School) in Dimitrovgrad Town, majoring in Underground Mining Construction with an "excellent" grade, the highest in his class. He obtained a fifth professional rank in Underground Mining Construction. In the period 1989-1994, he was a student at the St. Ivan Rilski University of Mining and Geology, majoring in "Mineral Exploration and Exploration". He obtained a diploma for "Engineer Geologist in Mineral Exploration". He also graduated in a semester, without a diploma defense, from the new (at that time) experimental major "Chemistry of Natural Waters", which was not developed at the University in the following years.

In 1995th, after winning a competition, he was accepted as a full-time doctoral student at the Geological Institute of the Bulgarian Academy of Sciences, where he acquired his current ONS "doctor" (PhD) in 1999 after defending a dissertation on the topic "Sequence of metamorphic and deformation events in the gneiss-granites of South Sakar" in the scientific specialty "Petrology". The main focuses of his dissertation are related to the microstructural and deformation analysis of metamorphic rocks and in particular the metagranites of Sakar

and their highly crystalline framework. After the defense, he successively held the positions of geologist and chief assistant at the Geological Institute.

At the end of 2001st he was accepted for a "Specialization for improving qualifications at the expense of the host country" at the University of New Brunswick, Canada. This specialization was carried out at the personal invitation of prof . emeritus PF Williams. He worked on the project " Structural geometry of the Chaleurs Synclinorium as support in mine design and prospecting", which was funded by the Canadian Research Foundation, as well as private companies from the province of New Brunswick. Dr. Dimitrov's stay in Canada lasts almost 7 years.

2. Teaching and learning activities and academic positions held.

During the period 1999-2001, Dr. Dimitrov was a part-time assistant at the University of Mining and Geology "St. Ivan Rilski" in "Fundamentals of Geology" and "Deposits of Non-Metallic Raw Materials". During the period 2002-2004, during his specialization in Canada, in addition to scientific and applied research, he also served as an assistant in the Department of Geology of the University of New Brunswick. Here he taught general geology, led exercises in structural geology, geological mapping and rock mechanics.

In 2008, through a competition, he became an "assistant" and very soon a "senior assistant" in structural geology and geotectonics in the Department of Geology and Paleontology (currently Geology and Geoinformatics) at the University of Mining and Geology "St. Ivan Rilski". In 2011, he was elected as an associate professor in geotectonics at the same department. He is currently the Head of the Department.

Before being elected as an associate professor, he gave lectures and tutorials on Structural Geology, Structural Geology and Geological Mapping, and Tectonics. He also taught specialized courses for graduate students , whose programs were developed by him.

During the last 3 academic years, Assoc. Prof. Dimitrov has taught the following disciplines: Structural Geology and Geotectonics, Field Geology, Introduction to Geological Geometric Analysis, Structural Geology and Geological Mapping, Geology and Environment, Specialized Methods of Three-Dimensional Geological Analysis (Master's Course), Specialized Processes and Phenomena (Master's Course), 3D Geological Mapping, Hydrological Analysis in GIS Environment and Observation Methods, Geological Impact on Ecosystems, Primary and Secondary Geological Documentation, Introduction to Geological Geometric Analysis.

The candidate teaches full-time and part-time students in bachelor's and master's programs in various majors. His classroom workload for the last three academic years is as follows:

- 2022-2023 lectures 267 hours; exercises 202 hours. Total 469 hours
- 2023-2024 lectures 394 hours; exercises 187 hours. Total 581 hours
- 2024-2025 lectures 423 hours; exercises 165 hours. Total 588 hours

Since 2008, he has supervised 12 master's students . He has supervised three doctoral students who successfully defended their thesis and obtained a PhD. He has also supervised a fourth, currently studying doctoral student, whose supervision he has transferred due to work commitments.

Associate Professor Dimitrov is the author of two monographic works and teaching aids.

3. Participation in projects

After taking up the position of Associate Professor, the Candidate in the competition has indicated participation in 11 projects. In addition to them, he has also indicated leadership of 4 projects. This makes a total of 15 projects. They are related to the environment, geological heritage, minerals, structural geology and engineering-geological problems. Outside of this list, from an earlier period Dr. Dimitrov has had various participation in projects related to the regional geology of Sakar-Strandzha Region of Bulgaria, Canada, the problems of radioactive waste storage, etc. He is also a participant in numerous applied projects related to the minerals of Bulgaria, geotechnical problems, etc.

4. Publication activity

The participant in the competition has indicated authorship of 93 publications. Thematically, they are related to regional geology, structural geology, engineering geology, environment, minerals, geological heritage. They are systematized in the following categories:

I. Publications attached to the acquisition of the scientific and educational degree of Doctor (PhD)

II. Publications submitted for habilitation to the position of associate professor

III. Publications attached to the competition for the professorship

IV. Textbooks and monographs

V. Book reviews in international journals

VI. Internet publications

VII. Full list of publications – 93 publications

For participation in this competition, the Candidate has indicated a list of 46 titles. Here I additionally include the monographic educational publication: Dimitrov, I. 20 **18** . Structural-geological analysis and mapping for the purposes of applied geology in Bulgaria. S., Publishing house "St. Ivan Rilski", 336 p. ISBN 978-954-453-372-5., which he mistakenly refers to the competition for associate professor (held in 20 **11**).

Of these publications, 11 are independent, in 7 he is the first author. Collective works are co-authored with 2 to 6 researchers. Usually, on average, there are about 3 co-authors. I believe that Dr. Dimitrov's participation in collective works is completely visible. In most cases, he is the initiator and/or head of the research. It is not clear why the list of these publications includes at least 9 publications from the period 2003-2009, made before the competition for the position of Associate Professor. They do not appear in the attached list for the position of Associate Professor. In general, the attached articles for the current competition are in visible publications with high scientific indicators. I would highlight the publications from recent years in MDPI (Q 1, Q 2) , Springer , etc.

The research and, accordingly, the publications of Assoc. Prof. Dimitrov are multidisciplinary. They can be grouped into the following main areas: 1. Structural geological; 2. Related to the exploration of minerals; 3. Multidisciplinary, related to the geochemistry and hydrochemistry of the environment and its protection; 4. Engineering geological or geotechnical related to the construction of large engineering facilities. Although at first glance these areas are different, in reality they flow into each other in the context of multidisciplinary topics. For example, structural geology flows into the search and exploration of minerals and into geotechnics of the environment. The study of minerals requires knowledge of geochemistry (also mineralogy, petrology), which is also necessary when evaluating various tasks related to the environment.

5. Citations of scientific publications

The candidate in the competition has indicated a list of 66 noted citations in the period 2002-2026. This number is not large, which I believe is due to the multidisciplinary nature of his research, insufficient search or publication in insufficiently visible publications. In recent

years, Assoc. Prof. Dimitrov's publications have been in prestigious international publications, which will undoubtedly increase the citation of his publications. For comparison, for participation in the competition for associate professor (2011), he has indicated 12 citations. This shows an increase in the visibility of his works almost 4 times. The citations received are in prestigious Bulgarian and international publications (especially from recent years). All this shows the visibility of Assoc. Prof. Dimitrov's publication activity.

6. Scientific and applied scientific contributions

The overall contributions of the Candidate in the competition Assoc. Prof. Dimitrov are multidisciplinary. He has set them out in great detail and I accept them completely. They can yes be grouped into the following main areas : 1. Regional geological and structural geological ; 2. Engineering geological and geotechnical related to construction on big engineering facilities , through the application of regional geological surveys and structural geology methods. 3. Related to the survey on useful fossils ; 4. Natural hazard research. 5. Multidisciplinary , related to geochemistry and hydrochemistry on the environment environment and its is protected . 6. Research of geological heritage sites. The unifying feature of the achievements is the use of structural geology methods in the context on multidisciplinary them research .

The scientific and applied scientific contributions of the candidate according to the attached publications for participation in this competition can be formulated as follows:

Structural and geological research (publications G. 7.7, G.7.8, G.7.13, G.7.25, G.7.27, D.7.31 and D.7.32)

- It is made structural analysis on rock outcrops from the valley on river Tundzha and is being analyzed the possibility the intensive deformations from the area of the village of Konevets yes is owe on The Tundzhan fault . So far real description on revelations from his deformation zone no are presented . D.7.7
- Proposed is a new model for evolution of the copper-porphyry deposit “Prokhorovo” . He includes implementation on Prokhorovskaya intrusion by two fault systems that were opened simultaneously as a result on that , that the main thing tectonic stress was oriented by suitable way . D.7.8
- Described is the interference in the Mesozoic rocks on Golo Bardo . D.7.25 and in the Diabase-phyllitoid complex from Iskarski gorge D.7.27.
- An original model for tectonic origin and evolution has been proposed on The Sub-Balkans lowlands . D.7.31 and D.7.33 as Pull-apart basins .

And research related to search , exploration and extraction on useful fossil (publications D.7.4, D.7.14, D.7.20, D.7.21, D.7.22, D.7.35, D.7.36)

- Done is an interpretation on geological map on the gold deposit " Milin" stone " near " to Breznik Town, in which it is established tectonic control at the formation on ore pillars. Several important for the future development on the deposit conclusions were made D.7.4.
- Studies assessing and reducing losses in quarrying, such as a possible solution, at the assessment on losses, be modeling the tectonic zones and their exclusion from the reserves. This is illustrated with an example from real deposit . D.7.14 .
- Presented are improved GIS solutions for three-dimensional modeling on ore bodies D.7.20 and D.7.21.
- Structurally geological research and decisions related to evaluation on blocks of deposits on facing stones D.7.22.

Morphotectonic and geomorphological studies (publications G. 7.1, G.7.10, G.7.11, G.7.17) related to the study of tectonic control over the relief and the derivation of regularities that lead to the systematic appearance of the same relief forms. These studies were conducted in the context of research on engineering geological problems and on geomorphological control in the formation of soils in Bulgaria, where the author has long-standing interests.

- the lithological and tectonic control on the river drainage network is proposed (D. 7.1).
- A tectonic-morphological division of the Oshtava Graben (G.7.10), through which the Struma highway route is designed, has been made . An old erosion valley of a currently inactive, old fault has been established. Before the deposition of the Kalimantsi Formation, it received significant river runoff. Due to tectonic processing and strong chemical weathering , the rock varieties are distinguished by very poor geotechnical properties. The established facts, in addition to their scientific value, have extremely important practical significance for the construction of the Struma highway section.
- An interpretation of the river network of Zavalaska Planina has been made in the light of the Riedel fault model (D.7.11).
- New facts have been established about the development of the river terraces along the Tundzha River and a new model for their development has been proposed (D.7.17).

Research on soils and natural waters (publications G. 7.6, G.7.15, G.7.16, G.7.23, D.7.28, D.7.30)

- caten is introduced for middle Thrace and in particular for the Tundzha structural depression (D.7.15). The “katen” is an association of soil types that repeat in close alternation , depending on the relief and the rock substrate.
- the oxide -ore mineralization from the Krumovo deposit on the formation of the mineral composition of the waters in the region has been established (D. 7.6).
- Several types of natural waters have been identified in the East Thracian Lowland (D.7.16). They correspond to the main rock associations related to the hydrochemical properties of the waters in the Neogene , in the Upper Cretaceous intrusions and dike complex, in the Triassic carbonates and in the Paleozoic metagranitoids .
- A beginning has been made in the study of calcretes in Bulgaria. Until now, calcrete , as a pedogenic concept, was almost unknown in Bulgaria and it was described as a type of limestone and separated as lithostratigraphic units (D.7.30).
- pelitic clays deposited on the last glacial formations has been identified . It is the result of marine transgression and its thickness depends on the distance from the sea coast (the drainage point). This fact is of important importance for the interpretation of modern geodynamics (G.7.19). It also explains the covering of Eneolith settlements under pelitic sediments in the Yambol region (G.7.26).

Geotechnical research on rock massifs (publications D. 7.3, D.7.5, D.7.9, D.7.12)

- railway lines, tunnels and a mine pit (Elatsite) have been studied . An analysis of the structural data and stresses has been made. Solutions to specific geotechnical problems have been proposed.

Lithological-stratigraphic and paleontological studies

- A review has been made of the paleontologist erudition on Strandzha – Sakar region area (D.7.18) .

- New data have been established on the lithostratigraphy of the Grudov Group, cropping-out in Strandzha Mountain (G.7.37)

Description of geological heritage sites - 7.24

In his early works before taking up the position of Associate Professor, Dr. Dimitrov made significant contributions to the study of the regional geology of Strandzha-Sakar Region, Province of New Brunswick, Canada, theoretical problems of structural geology, etc.

7. Conclusion

According to the submitted documents and materials, the candidate in the competition fully meets the legal requirements for occupying the academic position of "professor" in the professional field 4.4. Earth Sciences, scientific specialty "Methods and Techniques of Geological Research". He is a researcher with his own style and views. Undoubtedly, he is a university lecturer with a large teaching workload and achieved high results in the education of students. I have known Assoc. Prof. Dimitrov since his doctoral period. My personal impressions of him are that he is a persistent, ambitious, hardworking and correct researcher with excellent multidisciplinary training and interests in various areas of geology. All this gives me reason to give a positive review and recommend Assoc. Prof. Dr. Ivan Dimitrov to occupy the academic position of "Professor" at the University of Mining and Geology "St. Ivan Rilski".

September 03, 2026th

Signature:

/Prof. Radoslav Nakov/