

OPINION

by Assoc. Prof. Dimitar Sachkov, Ph.D., Member of the Academic Selection Committee appointed by Order No. RD-13-16/April 15, 2026, of the Rector of the University of Mining and Geology “St. Ivan Rilski”

Re: competition for the academic position of “associate professor” in professional field 4.4. Earth Sciences, scientific specialty “Petrology,” announced in the State Gazette, Issue No. 33 of April 3, 2026, for the needs of the Department of Hydrogeology and Engineering Geology at the Faculty of Geological Exploration of the University of Mining and Geology “St. Ivan Rilski”, Sofia.

Candidate: Senior Assistant Professor Dr. Kamelia Yankova Marinova.

1. General Profile of the Candidate and Submitted Materials

Senior Assistant Professor Dr. Kamelia Yankova Marinova is participating in the competition for the academic position of “Associate Professor” in the scientific specialty of “Petrology” with a comprehensive and well-structured set of materials, including a dissertation and related publications, a habilitation thesis (monograph), 19 scientific publications in peer-reviewed and indexed journals, including a chapter from a collective monograph, an author’s statement on original scientific and scientific-applied contributions, a statement of compliance with the minimum national and institutional requirements, a list of citing publications, as well as a certificate of her teaching load for the period 2021–2026.

The candidate holds a doctoral degree, awarded on the basis of a dissertation titled “Mineralogical and Petrographic Study of Artifacts from Cult Sites (second half of the 2nd millennium BCE – 1st millennium BCE) in the Eastern Rhodopes, Southern Bulgaria.” She currently holds the academic position of “senior assistant professor” in the Department of Hydrogeology and Engineering Geology at the Faculty of Geological Exploration at University of Mining and Geology “St. Ivan Rilski”.

The submitted materials have been prepared correctly and comply with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for its implementation, and the institutional requirements of University of Mining and Geology „St. Ivan Rilski“ for holding the academic position of “associate professor.” A review of the submitted documentation shows that the candidate meets and exceeds the minimum required points in all relevant indicator groups, as follows:

- A: Indicator 1 – 50 points required, materials submitted for 50 points;
- V: Indicators 3 and 4 – 100 points required, materials submitted for 100 points;
- G: Indicators 5–10 – 200 points required, materials submitted for 244 points;
- D: Indicators 11–13 – 50 points required, materials submitted for 82 points

All groups of indicators exceed the minimum required values, which is clear evidence of the candidate’s compliance with the institutional and national requirements for holding the academic position of “associate professor.”

2. Major Scientific Contributions

The publications of Senior Assistant Professor Dr. Kamelia Marinova are interdisciplinary in nature, combining classical petrology and mineralogy with modern analytical methods (optical

and electron microscopy, X-ray diffraction, X-ray tomography, infrared and Raman spectroscopy). Her contributions can be summarized in four main areas:

–Petrology – mineralogical, petrographic, and geochemical characterization of igneous, metamorphic, and sedimentary rocks, including studies of corundum mineralization in the area of the village of Mishevsko (Eastern Rhodopes) and of copper-bearing weathering crusts on green schists in Antarctica—results that contribute to the understanding of the genesis of rocks and mineralizations and have applied potential in the exploration of critical raw materials.

–Geoarchaeology—a leading area of the candidate’s scientific work, on which her habilitation thesis was based. A comprehensive methodology for petrographic, mineralogical, and spectroscopic analysis of ceramic artifacts, plaster, and clays from sites in the Eastern Rhodopes (Gluhite Kamani, Orlovo, Biser, Menekenski Kamani, Dolno Cherkovishte, and others), enabling the reconstruction of ancient production technologies, the determination of the origin of raw materials and the firing temperature regime, as well as the establishment of probable connections between sites from the Early Iron Age.

–Materials Science – research with a distinctly applied focus, aimed at characterizing historical and new materials (yellow paving stones, petrurgic materials based on sedimentary rocks, amorphous silicon dioxide from rice husks), with potential for application in construction and industry.

–Scientific museum activities and mineral heritage—contributions to the digitization and promotion of geological and mineralogical heritage, including virtual tours, electronic reference guides, and the systematization of type mineral specimens.

The habilitation thesis—the monograph “The ‘Gluhite Kamani’ Rock Complex: Geoarchaeological Studies” (2026)—represents a comprehensive and original interdisciplinary study. It provides, for the first time, a comprehensive characterization of the pottery, plasters, and clays from the site in question dating to the Early Iron Age; eight petrographic groups of pottery are identified; the predominantly local origin of the raw materials is demonstrated; a firing temperature range of 550–850 °C is established; specific surface coatings (black and silvery engobe) have been studied, and a methodological framework has been developed that can be applied to future geoarchaeological investigations of similar sites.

The 19 publications presented in Group “G” (of which 13 appear in journals in quartiles Q2–Q4, 5 in refereed and indexed journals, and 1 chapter from a collective monograph) attest to systematic and consistent research activity published in international and national scientific journals, including Antarctic Science, Archaeologia Bulgarica, Geologica Balcanica, Engineering Geology and Hydrogeology, and others.

3. Teaching and Academic Activities

According to the submitted teaching load certificate, Senior Assistant Professor Dr. Kamelia Marinova is engaged in active and diverse teaching activities at the Faculty of Geological Exploration at University of Mining and Geology „St. Ivan Rilski“ during the 2021–2026 period. Her classroom teaching load increases steadily from 88 hours in the 2021–2022 academic year to 552 hours in 2025–2026, reflecting an expansion in both the number of courses taught and the majors covered.

The candidate teaches the courses “Mineralogy and Petrography”, “Petrography”, “Crystal Optics”, “Magmatic Petrology” and “Metamorphic Petrology” as well as “Geoarchaeology” and “Materials Science” in the master’s program in Applied Mineralogy. There has been a consistent expansion of her teaching responsibilities —from leading exercises in introductory

courses to independently delivering lectures in specialized and master's-level courses—which attests to her accumulated teaching experience and the recognition of her competence by the department and the faculty.

4. Indicators of scientometric significance (citation impact)

According to the report on indicators from Group “D,” the candidate’s publications have been cited a total of 17 times in 10 different scientific publications by Bulgarian and foreign authors, with 16 of the citations appearing in journals that are peer-reviewed and indexed in international scientific databases (including *Archaeometry*, Journal of Archaeological Science: Reports, Archaeological and Anthropological Sciences, Review of the Bulgarian Geological Society, and others), while one citation appears in a journal with scientific peer review that is not indexed in international databases. The total number of points in Group “D” is 82, with a minimum requirement of 50, which indicates good international and national recognition of her results.

Particularly indicative is the diversity of the citing sources—both in the fields of geoarchaeology and archaeometry as well as in materials science and construction—which confirms the interdisciplinary significance and applicability of the candidate’s results.

5. Conclusion

The materials presented lead me to conclude that Senior Assistant Professor Dr. Kamelia Yankova Marinova possesses a substantial, in-depth, and consistently developed background in scientific and applied research in the fields of petrology and geoarchaeology, combined with active and growing teaching experience. The candidate meets all national and institutional requirements under indicator groups A, V, G, and D, and her scientific contributions are distinctive and enjoy strong scientific recognition, as confirmed by citations in peer-reviewed international publications.

Having known Dr. Marinova personally for the past 20 years and having observed her meticulous and dedicated approach to scientific research, I can confidently state that she possesses the necessary qualities to be a lecturer and scientist, beyond what the dry statistics of the national requirements can convey.

Based on the foregoing, I offer my positive assessment and strongly recommend that the esteemed scientific jury propose that Senior Assistant Professor Dr. Kamelia Yankova Marinova be elected to the academic position of “associate professor” in professional field 4.4. Earth Sciences, scientific specialty “Petrology”, at the University of Mining and Geology “St. Ivan Rilski”, Sofia.

Date: July 29, 2026

Prepared the opinion:

/Assoc. Prof. Dimitar Sachkov, Ph.D./