

OPINION ON THE COMPETITION FOR AN ACADEMIC POSITION

by

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Regarding: competition for the academic position of “Associate Professor” in the Field 4.4 Earth Sciences, scientific specialty “Petrology”, at the Department of Hydrogeology and Engineering Geology, University of Mining and Geology “St. Ivan Rilski”

Candidate: Assist. Prof. PhD Kamelia Yankova Marinova

This opinion has been prepared based on the decision taken at the first meeting of the Scientific Jury, approved by Order No. ПД-13-16/15.04.2026 of the Rector of the University of Mining and Geology “St. Ivan Rilski”. The opinion has been prepared in accordance with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), as well as with the Regulations for its implementation at the University of Mining and Geology “St. Ivan Rilski”.

Brief characterization of the candidate and the submitted materials

The candidate Kamelia Yankova Marinova holds a PhD in Field 4.4 “Earth Sciences” and has been serving as an assistant professor (chief assistant professor) in the Department of Hydrogeology and Engineering Geology at the University of Mining and Geology “St. Ivan Rilski” since 2020. Her research interests focus on petrology, mineralogical-petrographic studies of igneous, metamorphic, and sedimentary rocks, and geoarchaeology; her dissertation focuses on the mineralogical-petrographic study of artifacts from cult sites in the Eastern Rhodopes. She has experience supervising diploma students, participating in and managing national and international research projects, as well as practical work in museum activities and quality control of optical glass. She is a member of the Bulgarian Geological Society.

The candidate has submitted all required documents and materials for participation in the competition, in accordance with the requirements adopted in the Regulations for the implementation of LDASRB at the University of Mining and Geology “St. Ivan Rilski” and fully meets the required minimum number of points according to national and institutional criteria.

A check of compliance with the minimum national requirements shows that, against a required minimum of four hundred points, a total of 476 points has been presented.

After reviewing the submitted materials, no evidence of plagiarism or improper appropriation of scientific works was found.

Publication activity

The candidate's publication activity includes one monograph, a chapter in a collective monograph, thirteen scientific articles published in journals from quartiles Q2-Q4, as well as 8 publications in peer-reviewed scientific journals.

Visibility/Citations

Citation of the candidate's research results is an important indicator of their significance and impact within the scientific community. Under indicator D the candidate has provided evidence for 82 points against a required 50. The total number of citations is 17, 16 of which are in scientific publications refereed and indexed in internationally recognized databases of scientific information (Web of Science and/or Scopus), which attests to the international recognition and visibility of her scientific publications.

Scientific contributions

The key contributions are grouped into four main directions:

Geoarchaeology: Her doctoral and habilitation work implements a comprehensive methodological approach for the study of ceramic artifacts from the Early Iron Age. For the first time a systematic petrographic classification of ceramics and plasters from the "Gluhite kamuni" rock complex was carried out; eight petrographic groups were identified, a local origin of raw materials was demonstrated, and the firing temperature range was reconstructed (550-850 °C). The developed methodology is applicable to similar archaeological sites and expands the basis for interpreting ancient technologies and trade contacts.

Petrology: The presented publications contribute to knowledge of mineral composition, genesis and evolution of igneous, metamorphic and sedimentary rocks, including studies of corundum and copper mineralization. Participation in studies related to Antarctica and the Eastern Rhodopes broadens understanding of surface geochemical processes and ore formation.

Materials science and applied developments: Compositions and technologies for new ceramic materials and studies of historical construction materials (yellow paving stones), as well as environmentally oriented applications (utilization of rice husks), have been developed. These studies have practical significance for construction, architecture, and industry.

Museum activities and outreach: Innovations in digitization and virtualization of museum exhibitions (virtual tours, 3D models, QR systems) and the systematization of mineralogical collections enhance public accessibility and the preservation of mineral heritage.

The submitted scientific publications support the described thematic directions, with a significant portion being application oriented. The proposed integrated methods and results have potential for application in national and international research, engineering practice, and cultural-heritage institutions. Overall, Kamelia Marinova's contributions are characterized by methodological consistency, interdisciplinarity and linkage between fundamental research and practical application, providing a solid basis for future research in geoarchaeology, petrology and materials science. A key characteristic of the candidate's scientific output is the integration of

classical mineralogical-petrographic methods with modern analytical techniques (XRD, SEM-EDS, Raman, IR, geochemical analyses, X-ray tomography), enabling reliable identification of composition, provenance, and technologies of natural and anthropogenic materials.

Teaching activity

Kamelia Marinova has years of experience teaching undergraduate and graduate students in core subjects such as mineralogy and petrography, igneous petrology, crystallography/optical mineralogy, geoarchaeology and materials science.

Critical remarks

The submitted documents are professionally prepared, logically organized and adequately reflect the candidate's scientific and teaching activity.

Conclusion

The materials submitted by Ch. Assist. Prof. PhD Kamelia Marinova demonstrate that she fully satisfies and, in several respects, exceeds the requirements of LDASRB, the implementing rules and the internal regulatory framework of the University of Mining and Geology "St. Ivan Rilski". Her scientific and applied achievements, teaching activity and professional engagement meet the criteria for appointment to the academic position.

On the basis of the conducted analysis of the candidate's research and publication activity, I give a positive evaluation and recommend Ch. Assist. Prof. PhD Kamelia Yankova Marinova for appointment as Associate Professor in the Field 4.4 "Earth Sciences", scientific specialty "Petrology", at the Department of Hydrogeology and Engineering Geology, University of Mining and Geology "St. Ivan Rilski".

30 July 2026

Sofia

Author of the opinion:

/Assoc. Prof. PhD Katerina Nikolova/