

# OPINION

by **assoc. prof. Petko Mandjukov, Ph.D.**

SWU „Neofit Rilski“ – Blagoevgrad, FMNS, Chair of Chemistry

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REGARDING: Competition for the academic position "**Associated Professor**" (half-time), in the Higher Education Branch: 4. Natural sciences, mathematics and informatics; Professional field: 4.2 Chemical sciences (Analytical chemistry - Archaeometry), announced in SG no. 100 / 16.12.2022.

One candidate has submitted application for the competition - Head Assistant Professor Boyka Zlateva, Ph.D.

## Application details

Head Assistant Professor Boyka Zlateva, Ph.D. has submitted all documents required. They are in accordance with the Law on the Development of the Academic Staff of the Republic of Bulgaria, its rules, the rules for the terms and conditions for occupying academic positions at SU "St. Kliment Ohridski" and the recommended criteria of the Faculty of Chemistry and Pharmacy of SU "St. Kliment Ohridski", related to the procedure for promoting to the academic position "**Associated Professor**".

Documentation for the research and teaching activities of Head Assistant Professor Boyka Zlateva, Ph.D. is presented. The present opinion was prepared on the basis of this information.

## CV data, education and professional experience

Boyka Zlateva was born on September 24, 1973. She has completed her higher education (MSc) in 1997 with a specialization in organic and analytical chemistry. In 2003, she successfully defended her Ph.D. thesis on the topic: **Determination of the elemental composition of archaeological bones using ICP-AES and ICP-MS for reconstruction of the paleodiet**, with scientific supervisor Prof. Dr. Ivelin Kulev.

Boyka Zlateva's work experience is about 25 years. During this period of time she worked in the following institutions:

- National Soil Service under the Ministry of Agriculture, position – senior expert (since 1997)
- Institute for Nuclear Research and Nuclear Energy (INRNE), BAS, position – chemist (since 2001)

- SU "St. Kliment Ohridski", SU "St. Kliment Ohridski", Faculty of Chemistry and Pharmacy, Chair of Analytical Chemistry, positions - chemist (from 2002 to 2004); head specialist (from 2004 to 2005); Assistant Professor (2005); Senior Assistant Professor (from 2005 to 2006); Head Assistant Professor (from 2006 till present)
- SU "St. Kliment Ohridski", Faculty of History, Department of Archaeology, Center for Archaeometry with Laboratory for Conservation and Restoration, position - established researcher, R2 (1/2 full-time, from 2019 till now)

## **Teaching and scientific activity**

### **Teaching activity**

Curricula:

- Instrumental Analytical Methods (lectures and exercises);
- Analytical Chemistry (lectures and exercises);
- Archaeometry (lectures and exercises).

Scientific supervisor of graduate students, participant and project manager at FSI - SU and FSI - MES.

### **Scientific publications**

Boyka Zlateva has presented a list of publications containing 44 titles, including 3 chapters of monographic works. Of the publications, 16 ( $\approx 36\%$ ) were referenced in SCOPUS. Five of the publications were included in the Ph.D. thesis and another 17 in the current competition (5 of them according to indicator B and 12 according to indicator  $\Gamma$ ).

Thematically, 42 publications are devoted to analyzes of archaeological artifacts and archaeometric studies (including one review article) and two of the articles are related to ecological content.

A list of 63 participations in national and international scientific conferences is presented as well. All presentations (oral and poster) are entirely related analyzes of archaeological analysis and archaeometric studies.

The citations noted in the literature are 75, which are spread over 15 of the publications. Fifty five of them are included in the current contest.

### **Main scientific and applied – scientific contributions of the candidate**

It should be noted that the analysis of historical artifacts is among the most complex analytical tasks. The archaeological materials analyzed by Boyka Zlateva can be classified into 3 main categories:

- Metals and metal alloys
- Glass, ceramics, mosaics, building materials
- Organic residuals

Among the analytical techniques applied are: ICP – AES, ICP – MS, XRF, HPLC, TLC, FTIR, NMR etc.

The particular research and scientific contributions of the candidate are related to, practically all, stages of analytical investigation:

- Sampling
- Sample preparation
- Instrumental analysis
- Data processing
- Interpretation of the results obtained

## Conclusion

The publications presented by the candidate strictly correspond to the subject of the competition and make a significant contribution to the analysis of archaeological artifacts and archaeometry. In addition, I would like to note that 22 publications (out of a total of 44) and 55 of the noticed citations (out of a total of 75) were used for the acquisition of Ph.D. degree and in the present competition. Also taking into account the successful teaching activity of Boyka Zlateva, I consider that she meets the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its implementation and the additional requirements of the Faculty of Chemistry and Pharmacy of SU "St. Kliment Ohridski" acquisition of the academic position "Docent". Considering all this, I give a positive assessment and recommend the Honorable Scientific Jury to propose to the Faculty Council of the Faculty of Chemistry and Pharmacy at SU "St. Kliment Ohridski" to assign to **Head Assistant Professor Boyka Zlateva, Ph.D.** the academic position "**Associated Professor**" in the branch of the higher education 4. Natural sciences, mathematics and informatics, professional field 4.2. Chemical Sciences (Analytical Chemistry – Archaeometry).

10.04.2023

The opinion was prepared by:



/Assoc. Prof. Petko Mandjukov, Ph.D./