

OPINION

by Prof. DSc Elisaveta Ivanova,

member of the Scientific Jury in the contest for the academic position "Associate Professor", announced in State Gazette no. 103 of 10.12.2021 in professional field 4.2. Chemical Sciences (Radiochemistry), for the needs of the Faculty of Chemistry and Pharmacy at Sofia University "St. Kliment Ohridski "

The only candidate in the current contest for the academic position "Associate Professor" in professional field 4.2. Chemical Sciences (Radiochemistry) is **Chief Assistant Dr. Boyan Rumenov Todorov**.

The documents, submitted by the candidate, are in accordance with the requirements of the Law on the Application of Scientific Degrees and the Regulations for its implementation, the Regulations on the terms and conditions for acquiring scientific degrees and holding academic positions at Sofia University "St. Kl. Ohridski", as well as with the Recommended Criteria of the Faculty of Chemistry and Pharmacy for obtaining scientific degrees and holding academic positions for professional field 4.2 "Chemical Sciences". The attached reference for the implementation of the minimum national requirements under Art. 2b of the Law on the Application of Scientific Degrees and those of the Faculty of Chemistry and Pharmacy for professional field 4.2 "Chemical Sciences", for the academic position "Associate Professor" shows that Dr. Todorov meets the required minima in all indicators and exceeds most of them. In addition, the candidate has provided assurance that the habilitation articles were not used in his Doctor thesis.

Boyan Todorov has graduated from the Faculty of Chemistry at Sofia University in 2001 with an average grade of "very good" and a professional qualification of "master". In 2007 he received a "Doctor" degree in Analytical Chemistry with a thesis on "Determination and evaluation of the distribution of radionuclides (^{137}Cs , ^{60}Co and ^{241}Am) in the environment".

Scientific publications

Dr. Boyan Todorov, Author ID (SCOPUS): 55682578600, is co-author of a total of 23 scientific papers, 21 of which are publications in journals with impact factor (IF) (in Q1 - 3, in Q2 - 7, in Q3 - 6, in Q4 - 5); 1 in a journal without quartile and 1 chapter in a book.

The scientific results are presented in a total of 10 oral and poster presentations at national and international forums.

Total number of citations - 67, h factor 5.

Dr. Todorov has participated in 11 research projects in the field of radiochemistry and analytical chemistry, funded by the Research Fund of the Ministry of Education and Science, the Research Fund of Sofia University "St. Kliment Ohridski" and various operational programs, head of two of them.

Dr. Todorov has been on short-term specializations in several renowned European research institutions such as the University of Luxembourg, Luxembourg, the Max-Planck-Institut für Polymerforschung, Mainz, Germany, the University of Helsinki, Helsinki, Finland, the University of Barcelona, Barcelona, Spain. These specializations have undoubtedly contributed to raising his qualification.

Dr. Boyan Todorov's teaching activities include lecture courses within the topic of the contest: "Measurement of ionizing radiation", "Radioanalytical chemistry", "Production of radioactive isotopes and labeled compounds", "Radioecology", seminars and practical classes. He has been the supervisor of 17 defended diploma theses.

For participation in the present contest for associate professor Dr. Boyan Todorov has presented:

- ✓ 19 publications, not used in the Doctor thesis (2007), including:
 - 5 publications, united in a Habilitation work, which, however, is missing from the materials;
 - 13 publications in scientific journals with quartiles;
 - 1 chapter in the book "Magnetic nanoparticles in human health and medicine: current medical applications and alternative therapy of cancer". published by the renowned international publishing house Wiley.
- ✓ 41 citations in Scopus of the publications, submitted for participation in the contest for associate professor, with excluded self-citations.

Scientific contributions

The scientific contributions of Dr. Todorov in the papers, submitted for participation in the present contest, are in three main areas of radiochemistry - radioecology (11 publications), nuclear medicine (6 publications), and archaeometry (2 publications).

1. New analytical and radiochemical methods for speciation analysis of environmental samples (plants and soils) and food have been developed and applied. New data on the distribution of radionuclides in the environment, their distribution and bioavailability have been obtained. Studies have been conducted to clarify the influence of meteorological conditions on their fractionation;
2. New methods for obtaining potential radiopharmaceuticals have been developed and optimized and their application for diagnosis and treatment of cancer has been studied;
3. Non-destructive archaeometric studies of archaeological finds have been conducted to determine their elemental composition and on this basis - their exact dating.

The author's reference correctly reflects the purpose of the research studies, the most important results and conclusions, as well as the contributions.

Conclusion

Dr. Todorov has presented sufficient materials for habilitation as regards the scientometric indicators. He has proved to be a capable scientist and teacher.

Based on the overall scientific and teaching activities of Chief Assistant Dr. Boyan Todorov I propose to the Scientific Jury to award him the academic position “Associate Professor” in professional field 4.2. Chemical Sciences (Radiochemistry) at the Faculty of Chemistry and Pharmacy of Sofia University “St. Kliment Ohridski”.

Opinion given by:

Sofia, March 17, 2022

Prof. DSc Elisaveta Ivanova