

OPINION

on the contest for Associated Professor (Docent) at the Institute of Organic Chemistry with the Center for Phytochemistry (IOCh-CPh) of Bulgarian Academy of Sciences (BAS)-Sofia in a professional field 4.2. "Chemical Sciences", scientific specialty "Theoretical Chemistry" for the needs of the laboratory Structural Organic Analysis (SOA), announced and promulgated in the State Gazette, issue 79 / 08.10.2019, with the only candidate

Dr. Nadezhda Vassileva Markova,
Chief Assistant in the lab. SOA, IOCh-CPh-BAS

Wrote the Opinion: IVAN PETKOV BANGOV, Doctor of Chemical Sciences, PROFESSOR.

This opinion is shaped by the scientific production provided to me by the candidate Chief Assistant Professor Doctor Nadezhda Vassileva Markova, of the Laboratory SOA. Further in this opinion, I will adhere to the requirements of the *Regulations for the conditions and the procedure for acquiring scientific degrees and for occupying academic positions at the Institute of Organic Chemistry with a Center for Phytochemistry (IOCh-CPh), BAS*, in which the requirements for the candidates for the position of an Associated Professor (Docent) are:

1. *Have a doctorate degree.*

According to the attached copy of the Diploma for the educational and scientific degree DOCTOR with No 39545 from the Higher Attestation Commission, Nadezhda Vassileva Markova has obtained this degree on the 05.06.2006.

2. *To meet the conditions described in Art. 53 of the Implementing Regulations of the Law on the Development of Academic Staff in the Republic of Bulgaria (State Gazette (SG) No. 56 of 06/07/2018, amended SG No. 15 of 19/02/2019);*

According to the attached CV, Dr. Nadezhda Vassileva Markova has been in the position of Chief Assistant at IOCH-CP since 2006, and so far has been working on this position at the SOA Lab. Accordingly, Chief Assistant Dr. Nadezhda Vasileva Markova has 14 years on this position in the SOA laboratory.

3. *Have submitted a published monograph or equivalent publications in specialized scientific journals, not repeating the papers submitted for her Philosophy Dr degree.*

The applicant submitted a list of 34 original articles, 14 of them being after her doctor degree inauguration, i.e., in the group of indicators Γ (according to Annex 1). Dr. Markova is the first author in 4 publications. Here, however, I want to point out one feature that in 4 of the articles Dr. Markova's co-authors have performed synthetic and analytical activities, while Dr. Markova independently performed the computational activities. All articles are in peer-reviewed journals with different impact factors. Out of her habilitation work, Dr. Markova has 1 article with Q1 (25 points), 5 articles in Q2 journals (100 points), 4 in Q3 journals (60 points) and 3 in Q4 journals. (36 points). Dr. Markova has a total of 314 citations, with 100 citations, in scientific journals referenced and indexed in world-renowned databases of scientific information (Web of Science and Scopus), not presented in other previous competitions for academic positions and/or for obtaining academic degrees, which carry 200 points to indicator Δ (according to Annex 1).

She has presented a habilitation work entitiled "Water as a medium and catalyst for tautomeric reactions". The materials of this work are published in 5 articles, 4 of them in Q1 journals and 1 in Q2 journals. In 4 of the articles, Dr. Markova is the first author.

Chief Assistant Nadezhda Markova has been and is a leading manager of 3 projects at the National Research Fund and has participated in 8 other projects at departmental, national and international levels.

She has managed two master's theses. Additionally, she has been a mentor of the Project BG051PO001-3.3.07-0002 "Student Practices" students - 6 (SU -2; HTMU - 3; MU - 1) and Project BG05M20P001-2.002-0001 "Student Practices - Phase 1" students - 3 (SU -2; MU - 1) with beneficiary *Ministry of Education and Science, European Social Fund for Operational Program "Human Resources Development"* 2007-2013, by participating in the qualification and advanced training.

She has been awarded by 1 diploma and 2 Crystal Prize awards for best-presented conference articles. She has 2 short specializations in IONH-BAS and in Namur-Belgium.

In order to complete the science-metric indicators, I will note that according to the evidence presented to me, Dr. Nadezhda Vasileva Markova has the following indicators: A - 50 points for required 50 points, indicator Б -120 for required 100 points, indicator Г - 221 points, for required 220 points, and for indicator Д -200 for required 70 points. She has h-index = 9 (Google scholar) h-index = 7 (Scopus).

What is noteworthy is her exceptional active participation in scientific forums, 58 of which 13 are abroad. She was a member of 2 programs (technical) committees of the IEEE EUROCON 2017 conferences, Novi Sad, Serbia, July 01-04 2019 and 2019 in Macedonia.

These data show that she complies with the requirements laid down in the *Regulations for the conditions and procedures for acquiring scientific degrees and for occupying academic positions at the Institute of Organic Chemistry at the Center for Phytochemistry, BAS* for the position of Associate Professor (Docent).

I would like to point out my personal impressions, apart from the numerical scientific metrics on the scientific output of the assistant professor Dr. Markova. I know Nadezhda Markova when she was a graduate student of associate professor Georgy Neykov at the University of Shumen. Even then, she showed great diligence in her work in developing her graduate work.

Based on the documentation provided to me by Prof. Nadezhda Vassileva Markova's scientific achievements and scientific activity, as well as my impressions of her scientific activity and progress in the scientific field, my opinion is that based on the requirements in the Regulations for the implementation of the development of the academic staff in the Republic of Bulgaria and the Rules for the conditions and procedure for acquiring scientific degrees and for occupying academic positions at the Institute of Organic Chemistry with a Phytochemistry Center, she is worth getting the post of Associate Professor at the SOA Laboratory of the Institute of Organic Chemistry with the Center for Phytochemistry.

06/02/2020

Signature:

/ Professor Doctor of Chemical Sciences Ivan Bangov /