

OPINION

on a competition for an academic position

"Associate Professor"

in a professional direction 4.1. Physical sciences,

for the needs of Sofia University "St. Kliment Ohridski "(Sofia University),

Faculty of Physics, announced in SG No. 54 of 2021.

The opinion was prepared by: **Prof. Asen Enev Pashov**, SU St. Kliment Ohridski, in his capacity as a member of the scientific jury of the competition according to Order № RD 38-370 of 21.07.2021 of the Rector of Sofia University.

Only one candidate has submitted documents for participation in the announced competition: Ch. Assistant Professor Dr. Vladimir Veselinov Bozhilov from Sofia University St. Kliment Ohridski

1. Details on the documents

The documents submitted for the competition by the candidate comply with the requirements of ZRASRB, PPZRASRB and the Regulations on the terms and conditions for acquiring scientific degrees and holding academic positions at Sofia University "St. Kliment Ohridski.

For participation in the competition, the candidate Dr. Vladimir Bozhilov has submitted a list of a total of 17 publications in foreign scientific journals. Other documents concerning previous scientific titles and positions, as well as such supporting the achievements of the candidate in this competition, are presented, namely letters from Dr. Massimo Villata, Assoc. Prof. Dr. Evgeni Ovcharov and Assoc. Prof. Dr. Stefan Lalkovski, who, in their capacity as project managers, declare the applicant's contribution to the papers written within the managed projects. Dr. Bozhilov also presents tables that facilitate the verification of the compliance of the materials in the competition with the national criteria and the additional criteria for the Faculty of Physics. An excerpt from the Scopus database is attached, confirming the data on the candidate's publications and independent citations. Curricula vitae, reference for work experience and diplomas are added to the competition documents.

Notes and comment on the documents. The documents are carefully prepared, the required information can be found quickly. Appendix 10Б states that the candidate participated with 22 publications, but in fact the first 5 have already been used as evidence in obtaining the degree of "doctor" and the position of chief assistant professor. They should be excluded from competition publications. This will require correction of the data from the reference attached by the applicant.

The competition publications carry 300 instead of the required 200 points according to the minimum national requirements. The same can be said for the noticed independent quotes - they carry 416 instead of 100 points. Dr. Bozhilov has filled in the table indicators that are not required for the position of associate professor, such as the indicators from group E, and there he has also collected an impressive number of points.

As for the additional requirements for the Faculty of Physics, Dr. Bozhilov also fulfills them. He has enough teaching experience, 16 of the articles in the competition are from group 1, the h-index is 8,

he has defended graduates, he has participated in and led research projects. The table indicates that he has made a significant contribution to all 17 articles he has applied for.

2. Details of the candidate

Dr. Bozhilov is a graduate of Sofia University St. Kliment Ohridski, graduated with a master's degree in 2009 from the MSc programme of Astrophysics and Astronomy, and in 2014 defended his doctoral dissertation on "Polarimetric and photometric studies of blazars." The rich public activity and the participation in various projects is impressive.

3. General characteristics of the scientific works and achievements of the candidate

All the candidate's articles are written in large consortia. Works 6-13 and 16-22 are from the WEBT consortium with President Dr. Massimo Villata and leader from the Bulgarian side Assoc. Prof. E. Ovcharov. Works 14 and 15 were made jointly with Assoc. Prof. St. Lalkovski within the framework of a Bulgarian project of the NSF, but from the list of co-authors of Article 14 it can be seen that one can speak about a large international team. In the publications from WEBT the Bulgarian contribution is visible: the results of observations in the observatories in Rozhen, Plana and Belogradchik are reported. Obviously, this is a complex study and processing of data from many observations. Undoubtedly, each of the observations requires separate work, analysis and summarization of the results. In this sense, the contribution of the Bulgarian team can be considered significant. In the letter of Dr. Villata is said about Dr. Bozhilov to have performed optical measurements and related processing of the results. Article 14 is an overview and concerns, as far as I have been able to understand, a project for space gamma-ray observations. The contribution of the Bulgarian co-authors is part of the article - Chapter 4.9 (pp.57-58), dedicated to the observations of about 100 MeV. Experimental work is described in Article 15.

The scientific papers 6-22 submitted by the candidate do not repeat those from previous procedures for acquiring a scientific title and academic position and there is no proven plagiarism in the legally established order in the scientific papers submitted for the competition.

As volume and quality the scientific work meets the minimum national requirements (under Art. 2b, para 2 and 3 of ZRASRB) and the additional requirements of Sofia University "St. Kliment Ohridski" for holding the academic position of "Associate Professor" in the scientific field and professional direction of the competition. Dr. Bozhilov's contribution is described in document 14 Contributions, which states that the specific scientific contributions are *participation in observations in the optical range, in the processing of relevant data, participation in the interpretation and preparation of publications, as well as in their final design*. From the submitted documents, I can not fully understand to what extent the participation is a significant contribution given that it is stated in all 17 articles of the competition. In his certificate Assoc. Prof. Ovcharov, in addition to *processing with professional software and analysis of original astronomical data*, also speaks of *participation in observations, preparation of articles and participation in a project*. In my opinion, in document 14, the candidate should describe in more detail his specific contribution to each of the publications, so that the scientific jury can assess the significance of his contribution. The requirement of the Faculty of Physics about the candidate to have a significant contribution aims to show that the candidate is able to carry out valuable research on his own. I do not see direct evidence of this in the competition documents, and this had to be done especially when working in such large teams. What persuades me to accept the significant contribution of Dr. Bozhilov to the publications is the large volume of work in the period 2016-2020, which led to the number and quality of publications that significantly exceed both national requirements and those of the Faculty of Physics at Sofia University St. Kliment Ohridski. I also take into account the assurance of Assoc. Prof. Ovcharov - co-author of most publications.

In the table I give a comparison between the requirements of ZRASRB and the additional requirements of Sofia University St. Kliment Ohridski and the indicators of Dr. Bozhilov in the competition.

<i>Indicator</i>	<i>Requirement</i>	<i>Facts</i>
- teaching experience, equivalent to 2 years of full-time employment at Sofia University within the meaning of Art. 105. (1) from PURPNSZADSU	<i>2 years.</i>	<i>6 years</i>
- educational and scientific degree "doctor";	<i>Yes</i>	<i>yes</i>
In group indicators B and D: - A minimum of 7 Group I publications, at least one of them has been published in the last 3 years;	<i>7</i>	<i>16</i>
Significant contribution to at least 4 of the publications in group 1	<i>4</i>	<i>16</i>
Indicator group E: - Minimum 50 independent citations in referenced publications (Web of Science or Scopus, without auto - citations, including those by co-authors of the publication)	<i>50</i>	<i>206</i>
Additional requirements: - h-index at least 5; - scientific guidance of at least one successful defended graduate and / or consulting of successfully defended a doctoral student; - leadership and / or participation in international and / or national projects.	<i>5</i> <i>1</i>	<i>8</i> <i>13</i> <i>11 participations u 8 liderships</i>
Indicator 1: Dissertation work for awarding educational and scientific degree doctor	<i>50</i>	<i>50</i>
Indicator 4: Habilitation work - scientific publications in publications that are referenced and indexed in world famous databases with scientific information (Web of Science and Scopus)	<i>100</i>	<i>100</i>
Indicator 7: Scientific publication in publications that are referenced and indexed in world-famous databases data with scientific information (Web of Science and Scopus), outside habilitation work	<i>200</i>	<i>300</i>
Indicator 11. Citation in scientific journals, monographs, collective volumes and patents, referenced and indexed in world-famous databases data with scientific information (Web of Science and Scopus)	<i>100</i>	<i>412</i>

Here I have corrected the indicators presented by the candidate. Despite these adjustments, I believe that in this sense the candidacy is indisputable.

4. Characteristics and evaluation of the teaching activity of the candidate

The teaching activity of the candidate is impressive. It started in 2015, when Dr. Bozhilov became a senior assistant professor at the Faculty. Initially he taught courses in general astrophysics, stellar

photometry, history of astronomy. He currently teaches communication courses in astronomy, the solar system and exoplanets.

5. Conclusion on the application

An application like that of Dr. Bozhilov is not common. The scientific output is impressive, especially considering that the publications were made in a relatively short time. These publications are important, as evidenced by the observed response. On the other hand, the work is within large teams and the candidate had to describe very clearly his personal contributions and achievements. The number of participations in projects and project managements is impressive. Impressive is the variety of social and teaching activities.

After getting acquainted with the materials and scientific papers presented in the competition and based on the analysis of their significance, I confirm that the scientific achievements meet the requirements of ZRASRB, the Regulations for its application and the relevant Regulations of Sofia University St. Kliment Ohridski for the candidate for the academic position "Associate Professor" in the scientific field and the professional field of the competition. No plagiarism was found in the scientific papers submitted at the competition. I give my positive assessment of the candidacy.

OVERALL CONCLUSION

Based on the above, I recommend the scientific jury to propose to the Faculty Council of the Faculty of Physics at Sofia University St. Kliment Ohridski to elect Ch. Assistant Professor Dr. Vladimir Bozhilov to take the academic position of "Associate Professor" in a professional field 4.1. Physical sciences.

25.10.2021

Sofia