#### **OPINION**

# by Prof. Dimana Ilieva Nazarova, PhD, Institute of Optical Materials and Technologies "Acad. Yordan Malinovski"- Bulgarian Academy of Sciences

regarding the materials submitted for participation in a competition for the occupation of the academic position "Associate Professor" at the University of Plovdiv "P. Hilendarski" in areas of higher education 4. Natural Sciences, Mathematics and Informatics; professional field 4.1. Physical sciences, (Electrical, magnetic and optical properties of condensed matter)

Assist. Prof. Dr. Ivan Panayotov Bodurov from the University of Plovdiv "Paisii Hilendarski" participates as the only candidate in the "associate professor" competition proclaimed both in State Gazette no. 57, dated 26. June 2020 and in the University of Plovidy "Paisii Hilendarski" website.

### 1. General presentation of the procedure and the candidate

The set of materials presented by Assist. Prof. Ivan Bodurov (in electronic form) is in accordance with the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Development of Academic Staff Regulation in the University of Plovdiv "Paisii Hilendarski" and includes all necessary documents for participating in the competition.

Ivan Bodurov has been the assistant professor at Plovdiv University "Paisii Hilendarski" for 5 years. He achieved his doctoral degree at IOMT from where I know him. I was also a member of the commission for the defense of his dissertation. My personal opinion of him since then is that he is an excellent scientist with excellent experimental and theoretical skills.

Assist. Prof. Dr. Ivan Bodurov has submitted 48 scientific works for participation in the competition that have not been used to obtain the educational and scientific degree "Doctor". One of them is a monograph (book-chapter), 18 are journal articles, 24 are articles in proceedings of scientific forums, 1 textbook, 1 manual and three utility models. Assist. Prof. Dr. Bodurov is the first author in 12 scientific works.

The scientific activity presented by the applicant fully complies with and even exceeds the minimum national requirements in the professional field 4.1. Physical sciences.

### For criterion A (min. 50 p.) - 50 points

He has obtained a doctorate in the scientific specialty "Wave Processes" at IOMT - BAS with the topic of the dissertation: "Study of optical and holographic characteristics of nanostructures treated with corona discharge"

# For criterion B (min. 100 p.) - 100 points

There are 5 articles, 2 of which with factor Q1 with 25 points each, 2 with factor Q2 with 20 points each and 1 with SJR with 10 points, which makes exactly 100 points.

### For criterion $\Gamma$ (min. 200 p.) - 422 points

One chapter of a book, three utility models, 11 articles in journals with IF and 14 in journals with impact rank are presented. Which give a sum of **422 points** 

## For criterion $\Pi$ (min. 100 p.) - 90 points

45 citations are presented, each of which has 2 points and the total number of points is 90.

### 2. General characteristics of the activities of the applicant

Assist. Prof. Dr. Ivan Bodurov has a very active and diverse activity both in research and in the training of students.

## Scientific and applied activities

The main scientific activity of Assist. Prof. Dr. Ivan Bodurov is in the field of nanostructured composite and polymer thin films, refractometry and their applications. The activities can be grouped in several directions:

- I. Investigations on the formation and physicochemical properties of nanostructured multilayer coatings: polyelectrolyte multilayer films (PEM) deposited on polymer substrates, with pre-treatment of the substrate with corona discharge.
- II. Investigation of nanocomposite films composed of nanoparticles and polymer matrices. Influence of nanoparticle concentration on electret properties, surface properties, refractive index and contact angle of layers.
- III. Design and testing of devices for refractometry and physics such as four and fivewave laser micro refractometer, device for measuring piezoelectric coefficients of dielectric materials and their application in various fields: physics, biology, medicine and food industry.

I do not find plagiarism in the scientific works of the candidate.

## Teaching and participation in funded contracts

Assist. Prof. Dr. Ivan Bodurov has 8 years of experience as a lecturer at the Faculty of Physics at Plovdiv University. He participated in the competition as a co-author of 1 textbook, 1 manual and 3 electronic courses. He has developed 7 curricula for bachelor's, master's and doctoral specialties. He has been the scientific advisor of 7 graduate students who have successfully defended "Bachelor" degree. From 2013 until now he is a member of the Committee on organizing and conducting national physics competition "Young Physicists' Tournament". From 2019 to now he is a Research Secretary of Physics and technology Faculty of Plovdiv University. He participated in 14 research projects, of which 9 research projects are funded by University of Plovdiv and 5 were funded by the Ministry of Education and Science.

#### **CONCLUSION**

The documents and materials submitted by Assist. Prof. Dr. Ivan Bodurov, meet all the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, as well as the Specific additional requirements of the University of Plovdiv, as publications and research activities exceed the minimum national requirements for the academic position of "Associate Professor". The candidate's works contain original scientific and applied contributions that have received international recognition through their publication in journals and scientific publications published by international academic publishers. Undoubtedly, the very active teaching activity of Assist. Prof. Bodurov should be added. Based on all this, I support without hesitation the candidacy of Assist. Prof. Ivan Panayotov Bodurov, PhD for the academic position of "Associate Professor" at the University of Plovdiv "Paisii Hilendarski".

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Opinion issued by:

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