

OPINION

**by Prof. Temenuzhka Atanasova Yovcheva, PhD,
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regarding the materials submitted for participating in the competition for occupying the academic position 'Professor' in the Institute of Optical Materials and Technologies "Akad. J. Malinovski" at the Bulgarian Academy of Sciences

professional field 4.1. Physical sciences,
scientific specialty "Physics of wave processes"

Assoc. Prof. Dr. Dimana Ilieva Nazarova from Institute of Optical Materials and Technologies "Akad. J. Malinovski" at the Bulgarian Academy of Sciences (IOMT – BAS) participates as the only candidate in the "Professor" competition proclaimed both in State Gazette no 12 of 11.2.2020 and in internet page of the Institute of Optical Materials and Technologies "Akad. J. Malinovski".

1. General presentation of the procedure and the candidate

The set of materials (in electronic form) presented to me by Assoc. Prof. Dimana Nazarova is in accordance with the Law on the Development of Academic Staff in the Republic of Bulgaria and the Regulations for the Development of the Academic Staff of IOMT - BAS and includes all necessary documents for participation in competition.

The candidate is a co-author of 91 scientific publications, of which 71 with IF and / or SJR, one chapter of a book and has 132 citations of scientific papers and 111 participations in international and national conferences. She is the leader of 5 national projects and is a participant in 13 scientific and educational projects.

The candidate Assoc. Prof. Dimana Nazarova applied for the competition with 21 scientific papers that are not used in competition for Assoc. Prof. All 21 are articles in journals with impact factor or impact rank of which 8 are with factor Q1, 4 are with factor Q3, 6 are with factor Q4 and 3 with SJR. These include:

- equivalent to Habilitation Work - scientific publications in publications that are referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus) (indicator B) - 6 pcs.;

- scientific publications in publications that are referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus), outside the habilitation work, (indicator D, item 7) - 15 pcs.

The total number of publications in which the candidate is the first or second author is 14 out of 21.

Assoc. Prof. Dr. Dimana Nazarova has been an Associate Professor at the Institute of Optical Materials and Technologies "Akad. J. Malinovski" for 10 years and since then she has been a member of the Scientific Council of IOMT. For 8 years she has been Chairman of the General Assembly of IOMT Scientists, and for 4 years she has been Head of the Optical Metrology and Holography Department at IOMT.

The scientific activities presented by Assoc. Prof. Dimana Nazarova fully comply with the minimum national requirements for professional field 4.1. Physical sciences:

According to criterion A (min. 50 points) - 50 points

She received a PhD in Physics of Wave Processes in 2009, defended before the Higher Attestation Commission, on the topic "Optical resonances in periodic and scattering structures".

According to criterion B (min. 100 points) - 105 points

6 pieces are presented, publications equivalent to monographic work, which are in referenced indexed in world-famous databases with scientific information;

According to criterion Г (min. 220 points) - 257 points

15 pieces are presented, publications that are in referenced indexed in world-famous databases with scientific information;

According to criterion Д (min. 120 points) - 138 points

All citations are in scientific journals referenced and indexed in world databases of scientific information in indicator D-11.;

According to criterion E (min. 150 points) - 281 points

E-14 (participation in a national scientific or educational project) - 100 points;

E-15 (participation in an international scientific or educational project) - 60 points;

E-16 (Management of a national scientific or educational project) - 100 points;

E-18 (Raised funds for projects managed by the applicant) - 21 points;

2. General characteristics of the candidate's activity

Assoc. Prof. Dr. Dimana Nazarova has many active and diverse activities in research, in her participation in national and international projects and programs, as well as in the training of students and doctoral students.

Scientific and applied activities

The main scientific and applied activities of Assoc. Prof. Dimana Nazarova is in the field of anisotropic materials for polarization holographic recording and its applications in photonics, optoelectronics and information technology. Scientific contributions have both fundamental and applied nature and can be grouped into several areas:

I. Development and application of new hybrid organic / inorganic media for optical recording based on azopolymers, dyes and many different in composition and size added nanoparticles in them.

II. Development of theoretical models for diffractive optical structures with different parameters.

III. Development of models for studying the optical response of composite media, as well as approaches for applying dynamic speckle analysis.

I do not find the presence of plagiarism in the applicant's scientific works.

Teaching work and participation in funded contracts

Assoc. Prof. Dr. Dimana Nazarova is the supervisor of 12 graduates, two of whom have a master's degree, three have a bachelor's degree, and seven interns, 5 of whom are under the Student Internships project. At the moment she is a supervisor of two PhD students in the final years. She leads her doctoral lecture courses for specialized training in "Photosensitive materials for optical recording: reversible and irreversible new type of organic-inorganic composites" at the Training Center of BAS;

Participated in 18 research projects and she is a coordinator of five of them .

CONCLUSION

The documents and materials presented by Assoc. Prof. Dimana Ilieva Nazarova PhD, meet all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, as well as the Specific additional requirements of the Institute of Optical Materials and Technologies "Akad. J. Malinovski" at the Bulgarian Academy of Sciences, as publications and scientific activities exceeding the minimum national requirements for occupying the academic position "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 scientific activity of Assoc. Prof. Nazarova in connection with the participation in programs and projects should be added. Based on all this, I without hesitation support the candidacy of Assoc. Prof. Dimana Ilieva Nazarova PhD for the academic position of "Professor" at IOMT - BAS.

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Opinion issued by:

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