



О P I N I O N

From: Prof. Dr. Dimana Ilieva Nazarova from the Institute of Optical Materials and Technologies “Acad. Yordan Malinovski” - Bulgarian Academy of Sciences - scientific specialty “ Physics of wave processes”, scientific field 4.1. Physical sciences, professional field 4. Natural sciences, mathematics and informatics

For: competition for occupation of the academic position "**Professor**" in the scientific specialty „Physics“, professional field 4.1. Physical sciences, scientific field 4. Natural sciences, mathematics and informatics in AF at TRU.

1. Information about the competition.

The competition was announced for the needs of the faculty of TRU announced in State Gazette (SG) no. 94 / 03.11.2020

I participate in the composition of the scientific jury of the competition according to Order №88 /15.01.2021 of the Rector of TRU.

2. Brief information about the candidates in the competition.

The only candidate is Assoc. Prof. Dr. Stefka Lyubova Atanasova from the Faculty of Agriculture of the Thracian University of Stara Zagora.

Assoc. Prof. Stefka Atanasova has been working at the Thracian University in Stara Zagora for 20 years, and in the last 12 years she has held the academic position of associate professor at this university.

3. Fulfillment of the requirements for holding the academic position.

For participation in the competition, the candidate Assoc. Prof. Dr. Stefka Atanasova has presented 18 scientific articles in publications that are referenced and indexed in world-famous databases of scientific information (Web of Science and Scopus). Of these articles, four are from journals with Q1, three are

from journals with Q2, six are from journals with Q3, four are from journals with Q4 and one journal is with impact rank, but without Q.

They include:

- equivalent to Habilitation Work - scientific 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 3) - 12 pcs.

In 11 of the attached scientific papers the candidate is the first or second author.

For participation in the competition are also attached 50 citations in scientific journals, referenced and indexed in world-famous databases with scientific information, as well as the supervising of a successfully defended doctoral student, 6 participations in research projects, of which 4 are participations in national and 2 are in international scientific or educational projects, 3 project leadership of which 2 national and one international, and one textbook.

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

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

She has obtained an ONS doctor at the Thracian University, Stara Zagora, on the topic: "Application of spectral analysis in the near infrared region to determine the nutritional value of bulky feed" Diploma: (№ / date) 22755 / 02.12.1992, defended before the Higher Attestation Commission in 1992.

According to criterion B (min. 100 points) - 102 points

6 publications are presented on indicator B-1. Habilitation work - scientific publications that are referenced and indexed in world-famous databases of scientific information (Web of Science and Scopus).

According to criterion Γ (min. 200 points) - 206 points

12 publications are presented on indicator Γ-3: Scientific publication that are referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus), outside the habilitation thesis.

According to criterion Δ (min. 100 points) - 100 points

All citations are in scientific journals, referenced and indexed in world-famous databases with scientific information on indicator Δ-1.

According to criterion E (min. 150 points) - 260 points

E-2 (Supervising of successfully defended doctoral student - Mima Hristova Todorova - 50 points.

E-3 (Participation in a national scientific or educational project) - 40 points.

E-4 (Participation in an international scientific or educational project) - 40 points.

E-5 (Leadership of a national scientific or educational project) - 40 points.

E-6 (Leadership of the Bulgarian team in an international scientific or educational project) - 50 points.

E-8 (Published university textbook or textbook used in the school network) - 40 points.

4. Evaluation of the teaching activity for each candidate.

Assoc. Prof. Stefka Atanasova has 3 years of experience as a teacher of Physics in secondary education institution and 39 years of experience as a teacher in higher education institutions of students from different specialties in the discipline: "Physics with basics of biophysics". Her teaching experience is without a doubt.

5. Brief description of the presented scientific papers / publications

In the presented works the main studies are related to the research of the possibilities of the application of the spectral analysis in the near infrared region and application of different methods for analysis of spectral data. In my opinion they are in three main directions:

1. Analysis of cow's milk in different spectral sub ranges.

The accuracy of determination of fats, protein and lactose depending on the spectral range and other factors has been established. The most significant wavelengths for the exact determination of the factors are determined. The possibility of determining the total number of somatic cells and the electrical conductivity of milk as indicators of cow health and milk quality was studied. The importance of these studies is confirmed by the numerous citations over 300.

2. Establishing the quality of food products.

The possibility of using spectral analysis in the near infrared region for:

- non-destructive distinction between fresh and frozen and then thawed meat;

- non-destructive detection of bacterial development in meat and milk products;

- non-destructive determination of the antioxidant properties of red wines;

- study of the antioxidant properties of water-soluble extracts obtained from silkworm cocoons.

3. Early diagnosis of plant diseases.

Significant differences were found between the spectra of healthy, infected, but without developed visible signs of disease and plants with signs of disease.

6. Synthesized assessment of the main scientific and applied scientific contributions of the candidates.

In the works of the candidate there are original scientific and applied scientific contributions, which have received international recognition, through their publication in journals published by international academic publishers, as well as through numerous citations. The high citation rate is indisputable proof of the high level of scientific activity of the candidate Assoc. Prof. Dr. Stefka Atanasova.

7. Main critical remarks and recommendations

I have no critical remarks.

8. Conclusion

The documents and materials presented by Assoc. Prof. Dr. Stefka Atanasova meet all the requirements of the Law for the Development of Academic Staff in the Republic of Bulgaria and the specific additional requirements of the Thracian University of Stara Zagora. Publications and research activities exceed the minimum national requirements for employment of the academic position “professor”. Considering the overall teaching and research activities of Assoc. Prof. Dr. Stefka Atanasova, as well as the nature and importance of contributions in scientific publications for participation in the competition, I strongly support her candidacy for the academic position “professor” at the Thracian University.

02.03.2021 / Sofia

Date / place

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Signature: Prof. Dr. Dimana Ilieva Nazarova