

REPORT

by Prof. Dr. Albena Kirilova Detcheva-Tchakarova.....

..... *Institute of General and Inorganic Chemistry at the Bulgarian Academy of Sciences, Member of the Scientific Jury*

on the materials submitted for participation in a competition

for the academic position "**Associate Professor**"

at the Plovdiv University "Paisii Hilendarski"

in professional direction 4. Natural Sciences, Mathematics and Informatics,

professional field 4.2. Chemical Sciences (Analytical Chemistry)

In the competition for the academic position "**Associate Professor**", announced in the State Gazette, No 98 of 19. 11. 2024 and on the website of Plovdiv University "Paisii Hilendarski" for the needs of the Department of Analytical Chemistry and Computational Chemistry, Faculty of Chemistry, in professional direction 4. Natural Sciences, Mathematics and Informatics, professional field 4.2. Chemical Sciences (Analytical Chemistry) the only candidate in the competition is **Chief Assistant Dr. Deyana Lyubomirova Georgieva** from the Department of Analytical Chemistry and Computational Chemistry, Faculty of Chemistry of Plovdiv University "Paisii Hilendarski".

1. General presentation of the procedure and candidate

The submitted by **Chief Assistant Dr. Deyana Lyubomirova Georgieva** materials for the competition are in accordance with the Regulations for the Development of the Academic Staff of the Plovdiv University and they were not used in the procedure for acquiring the PhD-degree (in 2015 she defended her PhD-thesis with the title "Solid-phase extraction with magnetic nanoparticles in the analysis of trace elements by plasma spectrometry"). She participated the competition with altogether 14 scientific publications and one book chapter, where she is an independent author. Her **Habilitation thesis** is based on four of the scientific publications and the book chapter. All scientific works are written in English. All the 14 scientific publications are with impact or SJR factor as follows: 9 with quartile Q1; one with Q2; one with Q3 and 3 in Q4. The candidate participated one international scientific project and 10 national scientific and educational projects. A list of **140 noted citations** (without self-citations) of the publications of **Chief Asst. Dr. Deyana Georgieva** for

the period 2015-2024 is presented. Her **H-index** is 7. The quantitative indicators exceed the minimum national requirements for occupying the academic position "Associate Professor".

2. General characteristics of the candidate's activities

According to the presented materials in the period from 2019 to 2024, **Senior Asst. Prof. Dr. Deyana Georgieva** had lectures and exercises for bachelor's and master's degrees of over 3000 hours, exceeding the additional requirements of the Faculty of Chemistry of PU for holding the academic position of "Associate Professor" (not less than 1080 hours). She was the supervisor of three graduate students and the co-supervisor of one successfully defended PhD-student.

The results, obtained and published by **Senior Asst. Prof. Dr. Deyana Georgieva** have found good response in scientific references. A list of 140 citations of her publications in the specialized literature for the period 2015-2024 is presented – 135 by foreign authors, 5 by Bulgarian authors. I agree with the author's assessment of the contributions (scientific and applied-scientific) in the scientific papers submitted for the competition. The main contributions are as follows:

- (1) Optimization and application of inductively coupled plasma mass spectrometry for characterization of nanoscale materials - **Habilitation work** based on scientific works **B1-B5**;
- (2) Development of approaches for sample preparation in combination with spectrochemical methods of analysis for the determination of essential and potentially toxic elements in environmental objects - scientific publications **G1-G10**.

The personal contribution of the candidate **Senior Asst. Prof. Dr. Deyana Georgieva** in her scientific works is highly appreciated because the candidate has at least an equal participation in the submitted papers. Her complete scientific production passed through the precise reference process in high-indexed journals. The main contributions of the candidate may be specified as "*Novelty in science*" and "*Development of existing knowledge*".

3. Critical remarks and recommendations

I have no critical remarks concerning the scientific and professional qualification of the candidate **Senior Asst. Prof. Dr. Deyana Georgieva**. I know the candidate since many years, I have been a reviewer of her PhD-Thesis and my impressions of her work during all these years are excellent. I am convinced that **Senior Asst. Prof. Dr. Deyana Georgieva** is a competent scientist who occupies a worthy place among her colleagues – analytical chemists.

CONCLUSION

The documents and materials, presented by **Chief Asst. Dr. Deyana Georgieva** meet all requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations of the Plovdiv University "Paisii Hilendarski".

The candidate has presented a sufficient number of scientific works not included in the PhD procedure. The candidate's works contain original scientific and applied-scientific contributions that have received international recognition. The results achieved by **Chief Asst. Dr. Deyana Georgieva** in the educational and scientific research activities fully comply with the minimum national requirements and the additional requirements of the Faculty of Chemistry of the Plovdiv University according to the Regulations for the implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria.

After getting acquainted with the materials and scientific papers presented for the competition, analyzing their significance and the scientific and applied scientific contributions contained in them, I find it reasonable to give my positive assessment and to recommend to the Scientific Jury to prepare a report-proposal to the Faculty Council of the Faculty of Chemistry for the election of **Chief Assistant Dr. Deyana Lyubomirova Georgieva** to the academic position of "**Associate Professor**" at the Plovdiv University "Paisii Hilendarski" in professional direction 4. Natural Sciences, Mathematics and Informatics, professional field 4.2. Chemical Sciences (Analytical Chemistry).

Date: March 06, 2025

Sofia

Signature:

/Prof. Dr Albena Detcheva-Tchakarova/