

OPINION

From Petko Nedyalkov Denev, PhD - professor at IOCCP-BAS

on the materials in the competition for the academic position "Associate professor"
at Plovdiv University „Paisii Hilendarski”

Scientific field 4. Natural science, mathematics and informatics

Professional direction 4.2. Chemical sciences (Organic chemistry, Bioorganic chemistry).

1. General introduction of the procedure and the candidate

By order № ПД-22-81 from 17.01.2025 of the Rector of Plovdiv University (PU) "Paisii Hilendarski" I have been appointed as a member of the scientific jury of a competition for the academic position of "associate professor" in the PU, in the field of higher education 4. Natural sciences, mathematics and informatics, professional direction 4.2. Chemical sciences (Organic chemistry, Bioorganic chemistry). The competition is announced in the State Gazette № 98 from 19.11.2024 and on the PU website for the needs of the "Organic chemistry" department at the Faculty of Chemistry. Only Mina Mihailova Todorova, PhD from the same department of PU submitted documents to participate in the announced competition.

The set of materials presented by Dr. Todorova in paper and electronic media meets the requirements of the Act for the Development of the Academic Staff in the Republic of Bulgaria (ADASRB) the Regulations for its Implementation (RIADASRB) and the specific requirements of the Regulations on the Development of the Academic Staff of PU. It includes: Application to the Rector for admission to the competition; Autobiography; Diploma of higher education for the "Master" degree; Diploma of educational and scientific degree "Doctor"; List and copies of scientific works; List of citations; Certificate of compliance with the minimum national requirements; Extended habilitation reference and annotations of the materials under Art. 65. from Regulations on the Development of the Academic Staff of PU (in Bulgarian and English); Self-assessment of contributions; Declaration of originality and authenticity of the attached documents; Certificates of work experience and academic work; Certificates of teaching employment from PU and UFT-Plovdiv. Certificates of participation in scientific projects from PU and UFT-Plovdiv; Evidence of participation in scientific

conferences; Certificate of compliance with the minimum additional requirements of the Faculty of Chemistry at PU.

The candidate has submitted twenty-four scientific publications on the topic of the competition, which have not been submitted in other competitions and are accepted for review.

2. General characteristics of the applicant's activity

The teaching and pedagogical activity of Dr. Mina Todorova meets the specific requirements for holding the academic position of "associate professor" at the Plovdiv University. She has demonstrated solid teaching experience of over 18 years, first as an assistant professor and chief assistant professor at the University of Food Technology-Plovdiv, and since 2021 as a chief assistant professor at the Plovdiv University. Her total experience in the academic position of "chief assistant professor" exceeds 13 years. Indicative of the intensity of her teaching activity is the fact that as a lecturer she has conducted 4846 hours of classroom activities with students at the University of Food Technology-Plovdiv and 1233 hours at the Plovdiv University. In addition, she has also conducted 633 hours of practical courses as a part-time lecturer in the Department of Organic Chemistry at the Plovdiv University. Thus, she repeatedly exceeds the required minimum of 1080 hours for holding the academic position of "associate professor" at the Plovdiv University. In addition, she was the supervisor of six graduate students' theses and participated together with students and doctoral students in scientific publications, conference reports and projects. At PU, Dr. Todorova leads laboratory and seminar practical courses in "Organic Chemistry", "Bioorganic Chemistry", as well as lectures and practical courses in "Dye Chemistry". She also participated in the development of the curriculum for the discipline "Dye Chemistry". All this is in very good accordance with the goals of the announced competition. In addition, she is a co-author of a laboratory manual "Food Chemistry" and a manual "Fundamentals of Culinary Chemistry". Dr. Todorova actively participated in scientific projects funded by the National Research Fund (3); the Science Fund at UFT-Plovdiv (4), PU (1) and the National Recovery and Resilience Plan (1).

Chief assist. prof. Mina Todorova defended her dissertation for awarding a PhD degree on the topic "Synthesis, spectral and structural study of new merocyanine dyes with potential applications in optical technologies", which earned her 50 points under indicator A of the RIADASRB. After earning the doctoral degree, she further developed and deepened her research in this area, while at the same time diversifying the scientific issues on which she works with a number of studies aimed at studying the pharmacological potential and biological activity of propolis. Of the twenty-four scientific papers in the competition, ten publications were presented as equivalent to a habilitation thesis.

Thus, under indicator B of the RIADASRB, she collects 170 points with a required minimum of 100 points. The fourteen publications under indicator Γ earned her 285 points with a required minimum of 200 points. A list of 152 citations in publications referenced or indexed in Scopus and/or Web of Science is also presented, which equals 304 points in the group of indicators Д and significantly exceeds the required minimum of 50 points. A reference in Scopus showed 172 citations and an H-index of 9, which is a very good certificate of the quality of the scientific publications in which Dr. Todorova participates and is indicative of the relevance of the topics she works on. The total impact factor of the publications from the competition ($IF > 54$) testifies to the high quality of Dr. Todorova's scientific production. Thus, the candidate not only covers, but also significantly exceeds the minimum scientometric requirements in three of the four groups of indicators set out in the RIADASRB, with the points in the individual groups being as follows:

Indicator	Minimal requirements	Candidate's points
A	50	50
B	100	170
Γ	200	285
Д	50	304
Total		809

The research activities of chief assist. prof. Dr. Mina Todorova can be attributed to the fields of organic chemistry, bioorganic chemistry and food chemistry. As a result of the scientific research in which she participated, original scientific and applied scientific contributions have been achieved on the design, synthesis, spectral properties and structural characterization of new styrylquinolinium compounds with potential nonlinear optical activity and anti-inflammatory action. Large parts of the contributions in this direction are of a fundamental nature, as they enrich and expand knowledge in the field of dye chemistry. The contributions from the research on propolis are mainly of an applied nature, as this information can find practical application in the development of food products and nutraceuticals.

3. Critical remarks and recommendations

I have no critical remarks or recommendations regarding the documents and materials presented, nor regarding the candidate's scientific output.

CONCLUSION

The documents and materials presented by chief assistant professor Dr. Mina Todorova meet the requirements of the Act for the Development of the Academic Staff in the Republic of Bulgaria, the Regulation for its Implementation and the specific Regulations of Plovdiv University "Paisii Hilendarski". The candidate demonstrates very intensive teaching and pedagogical activity, and her teaching qualifications are unquestionable. In the competition, she has presented a sufficient number of scientific works published outside the procedure for the acquisition of PhD degree and the competition for the appointment as "chief assistant professor". The contributions of the scientific research activity of chief assistant professor Dr. Mina Todorova are original, and evidence of the quality of her scientific research work is the good citation, the high Hirsch index and the high total impact factor of her publications. The achieved results in the educational and scientific research activity fully comply with the national requirements of the Act for the Development of the Academic Staff in the Republic of Bulgaria, the Regulation for its Implementation and the additional requirements of the Faculty of Chemistry at the Plovdiv University "Paisii Hilendarski".

After familiarizing myself with the materials and scientific works presented in the competition, analyzing their significance and the scientific and applied scientific contributions contained in them, I fully believe that I give my positive assessment and 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 professor Dr. Mina Todorova to the academic position of "associate professor" at the Plovdiv University "Paisii Hilendarski", in the field of higher education 4. Natural Sciences, Mathematics and Informatics, professional field 4.2. Chemical Sciences (Organic Chemistry, Bioorganic Chemistry).

07.03.2025

Member of the scientific jury:
(prof. Petko Denev, PhD)