

## OPINION

**from Assoc. Prof. Stela Mironova Statkova-Abeghe, PhD – Associate Professor at the Paisii Hilendarski University of Plovdiv, Department of Organic Chemistry, Faculty of Chemistry**  
on the materials submitted for participation in a competition for the academic position of "Associate Professor" in: professional field 4.2. Chemical Sciences (Organic Chemistry, Bioorganic Chemistry)

In the competition for the position of "Associate Professor", announced in the State Gazette, issue 98 of 19.11.2024 and on the website of the Paisii Hilendarski Plovdiv University for the needs of the Department of Organic Chemistry at the Faculty of Chemistry, the only candidate participating is Chief Assistant Prof. Mina Mihaylova Todorova, PhD from the Department of Organic Chemistry at the Faculty of Chemistry

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

By order No. RD-22-81 of 17<sup>th</sup> of January 2025 of the Rector of the Paisii Hilendarski Plovdiv University, I have been appointed as a member of the scientific jury in a competition for the academic position of "associate professor" at the Plovdiv University in the field of higher education 4. Natural Sciences, Mathematics and Informatics, professional field 4.2. Chemical Sciences (Organic Chemistry, Bioorganic Chemistry), announced for the needs of the Department of Organic Chemistry at the Faculty of Chemistry of Plovdiv University.

The only candidate who has submitted documents for participation in the announced competition is Chief Assistant Professor Mina Mihaylova Todorova, PhD. The set of materials on paper and electronic media presented by Dr. Todorova is in accordance with the Regulations for the Development of the Academic Staff of Plovdiv University, and includes all necessary documents.

The candidate Dr. Todorova has submitted a total of 33 scientific papers, 23 of them are peer-reviewed scientific papers, published in refereed and indexed in Web of Science and Scopus international journals with an impact factor or SJR, and are outside the dissertation and the competition for the position of Chief Assistant Professor. All submitted materials are on the topic of the competition and are related to structural analysis or research of the properties of natural and synthetic biofunctional substances and plant extracts, as well as materials with applications in nonlinear optics. The scientific papers are as follows: 11 articles with quartile Q1, 2 papers with Q2, 6 of them with Q3, and 4 with Q4. 9 of the presented papers are published in open access journals of the MDPI publishing house and are published in the period 2023-2025. Four of the publications are in refereed journals without an impact factor for the respective year.

The report on the fulfillment of the minimum national requirements, applied by Dr. Mina Todorova, covers the following indicators: **Indicator A** - Doctoral dissertation 2015, topic: "Syn-

thesis, spectral and structural study of new merocyanine dyes with potential applications in optical technologies" - 50 points; **Indicator B** - A total of nine articles, divided thematically into two areas, are presented as equivalent to a habilitation thesis: 5 articles on structural, spectral and electrochemical properties of dyes (carrying a total of 105 points) and four articles (one of them is a review) on the properties of propolis (carrying a total of 55 points); **Indicator G** - 14 publications, 8 of them with Q1, 1 with Q2, 3 with Q3, and 2 with Q4 without IF, total of 285 points for this category; **Indicator E** - Citations in scientific publications referenced by Web of Science and Scopus - 152 - total of 304 points. For participation in the competition, the candidate participated **with a total of 642 points**.

The professional biography of Dr. Mina Todorova is initially connected with the University of Chemical Technology - Plovdiv, where she has 14 years of teaching experience as an Assistant Professor since 2007, and subsequently a Chief Assistant Professor at the Department of Organic Chemistry. Meanwhile, she was repeatedly elected as a part-time assistant in the Department of Organic Chemistry of the Paisii Hilendarski University of Plovdiv. The candidate was a student in the Bachelor's Degree Program in Chemistry, a Master's Degree Program in Medicinal Chemistry, and a part-time doctoral student in Organic Chemistry supervised by Prof. Dr. Tsonko Kolev. Since 2021, Dr. Mina Todorova has held the position of Chief Assistant Professor in the Department of Organic Chemistry at the Faculty of Chemistry of the University of Plovdiv.

## **2. General characteristics of the candidate's activities.**

The teaching and pedagogical activity of Dr. Todorova for the period 2021-2024 covers lecture and practical classes with Bachelor students in total of 1233 hours. 70 hours of the aforementioned classes were lectures, 40 hours of them a lecture course in the mandatory discipline "Organic Chemistry - Part Two" with part-time Bachelor students in Chemistry and 30 hours – a lecture course in the discipline "Chemistry of Dyes" with Bachelor students in Chemistry and Chemistry with Marketing. Chief Asst. Prof. Dr. Mina Todorova also actively works with students and doctoral students, and in the period 2022-2024 she is the supervisor of two graduate students and co-supervisor of four graduate Bachelor students in Chemistry. She developed and introduced the course "Chemistry of Dyes", as well as a series of laboratory exercises in the disciplines "Bioorganic Chemistry", "Organic Chemistry - Part One" and "Organic Chemistry - Part Two". Dr. Todorova is a co-author of two textbooks published by the University of Chemical Technology - Plovdiv.

**Scientific and applied scientific activity** - Mina Todorova is a co-author of 42 scientific papers published in refereed and indexed editions in Web of Science and Scopus journals. The candidate participated in the competition with 23 of them. In **indicator B**, Dr. Todorova has presented 10 scientific papers equivalent to a habilitation paper, one of them is not counted as a

collection of papers from an international school. Six of these papers have been cited a total of 32 times. The remaining 14 publications are in **indicator G** and showed the development of the candidate's scientific interests, eight of them being cited 54 times. The main area of scientific research of the candidate is design, structural, and spectral study of new materials with NLO properties and potential for application. The second scientific area is related to the application of physicochemical, in vitro, and in silico methods for determining antioxidant, anti-inflammatory, anti-arthritic, antiviral, antimicrobial, etc. activities, both of propolis samples and of various plant extracts and synthetically modified substances. A relatively new area is the preparation of nanoparticles for the deposition of substances with potential pharmaceutical activity.

The research activities of the candidate have scientific and applied scientific contributions, highly appreciated by the international scientific community, with citations on 16 of the presented papers. According to the candidate, over 150 citations from foreign authors in refereed and indexed journals have been noted (excluded self-citations of all authors). The scientific contributions are related to the application of modern structural and spectral methods for revealing the structure of new materials. The interdisciplinary studies of the physiological activity of new hybrid molecules and plant extracts using various methods have scientific and applied contributions. The obtained results and personal contributions of Dr. Todorova are original. All quantitative indicators according to the criteria for occupying the academic position of "associate professor" (from 42% to 300%) have been met and far exceeded.

## CONCLUSION

The documents and materials presented by Chief Assistant Professor Mina Mihaylova Todorova, PhD meet the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for the Implementation of law and the of the regulations for the development of the academic staff of the Paisii Hilendarski Plovdiv University.

Dr. Mina Todorova has presented **a sufficient** number of scientific works published after the materials used in the doctoral thesis. The publications contain original scientific and applied contributions that have received international recognition, as they have been exclusively published in reputable international journals. The scientific and research work is oriented towards educational work in the field of Bioorganic Chemistry and Chemistry of Natural Compounds. The scientific and teaching qualifications of Mina Mihaylova Todorova are also indisputable.

The results achieved by Dr. Mina Mihaylova Todorova in teaching and research activities fully comply with the minimum national and additional requirements of the Faculty of Chemistry, and in

the Regulations of the University for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria.

After reviewing the materials and scientific papers presented in the competition, analyzing their significance, scientific, scientific-applied, and applied contributions contained in, I found it reasonable to give my positive assessment and to recommend to the Scientific Jury to prepare a report-proposal to the Faculty of Chemistry at the Paisii Hilendarski Plovdiv University for the election of Mina Mihaylova Todorova to the academic position of "Associate Professor" at the Paisii Hilendarski University of Plovdiv in field of higher education 4. Natural sciences, mathematics and informatics, professional field 4.2. Chemical sciences (Organic chemistry, Bioorganic chemistry).

10.03.2025

**Reviewer:** .....

Assoc. Prof. Stela Statkova-Abeghe, PhD