R E V I E W

by Dr. Mina Mihaylova Todorova, Associate Professor at University of Plovdiv Paisii Hilendarski

of the materials submitted for participation in the competition for the academic position of Associate professor at Plovdiv University "Paisii Hilendarski", in: field of higher education 4. Natural Sciences, Mathematics, and Informatics; professional field 4.2. Chemical Sciences (Organic Chemical Technology)

By decision of the Academic Council of Plovdiv University 'Paisii Hilendarski' (State Gazette, No. 96 of 11.11.2025), a competition was announced for the position of Associate Professor in the field of Higher Education 4: Natural Sciences, Mathematics, and Informatics, professional field 4.2: Chemical Sciences (Organic Chemical Technology), for the needs of the Department of Chemical Technology at the Faculty of Chemistry. Chief Assistant Professor Olga Tencheva Teneva, PhD from the Department of Chemical Technology at the Faculty of Chemistry of Plovdiv University has been admitted to participate in the competition for this academic position.

1. General presentation of the procedure and the candidate

By Order No. PD-22-56 of 9 January 2026, issued by the Rector of Plovdiv University Paisii Hilendarski, I was appointed as a member of the scientific jury for the competition for the academic position of Associate Professor in Higher Education Field 4: Natural Sciences, Mathematics, and Informatics, professional field 4.2: Chemical Sciences (Organic Chemical Technology), announced for the needs of the Department of Chemical Technology at the Faculty of Chemistry.

The set of materials submitted by Chief Assistant Professor Dr Olga Tencheva Teneva, PhD in Google Drive complies with the Regulations for the Development of Academic Staff at Plovdiv University and with the additional requirements of the Faculty of Chemistry.

The submitted documentation fully meets all the criteria for the academic position of Associate Professor.

2. General characteristics of the candidate's activities

During the period 2005–2009, Chief Assistant Professor Dr Olga Tencheva Teneva, PhD completed a bachelor's degree in Chemistry and acquired additional capacity as a Chemistry Teacher. As part of her bachelor's degree, she participated in the Erasmus program from April to August 2009, studying Atmospheric Chemistry at the University of Duisburg-Essen (Germany). In 2010, he obtained a master's degree in Food Chemistry. From 2011 to 2014, he was a full-time doctoral student and wrote a dissertation on the composition and oxidative stability of vegetable oil from Bulgarian flax varieties. She obtained a PhD in the field of higher education 4. Natural Sciences, Mathematics, and Informatics, professional field 4.2. Chemical Sciences. She obtained her bachelor's and master's degrees, as well as her doctoral degree, at the Faculty of Chemistry of Plovdiv University Paisii Hilendarski.

Chief Assistant Professor Dr Olga Tencheva Teneva, PhD has both academic and practical professional experience. In 2010–2011, she worked as a chemist in the Technology and Innovation Department of Agria AD, where she was involved in the development of new plant protection products.

Her academic career includes the position of assistant in the Department of Chemical Technology at the Faculty of Chemistry of Plovdiv University Paisii Hilendarski in 2014–2015, where she taught bachelor's degree students and conducted research. Since 2015, she has held the position of Chief Assistant Profesor in the same department, continuing her teaching and research activities in the field of organic chemical technology. She speaks English and German at a very good level, enabling her to freely consult specialised scientific literature, participate in international scientific forums, and engage in effective professional communication. She has excellent communication skills, is able to work in a team and organize teaching and research activities, and has a high level of technical competence in working with laboratory equipment and specialized software. He has extensive experience in scientific research with 42 publications indexed in Scopus and Web of Science.

3. Scientific and scientific-applied activity of the candidate

Dr. Olga Tencheva Teneva has over 11 years of teaching experience as an assistant and senior assistant at the Paisii Hilendarski University of Applied Sciences. During this period, she has been actively involved in teaching, developing and leading courses closely related to her research interests and professional experience in the field of organic chemical technology and food chemistry. Dr. Teneva teaches both laboratory classes and lecture courses for bachelors and masters. She regularly updates and enriches the curriculum by integrating contemporary scientific achievements and good practices.

Dr Teneva actively participates in assessing students' knowledge by preparing examination materials and tests. Under her scientific guidance, five bachelor's theses were successfully defended in the period 2024–2025. Her total teaching workload amounts to 4536 hours (an average of over 450 hours per year), demonstrating a significant commitment to the teaching process.

In conclusion, Dr Teneva fulfils all the teaching requirements set out in the Regulations of University of Plovdiv Paisii Hilendarski for appointment to the position of Associate Professor. Her proven academic competence establishes her as a highly valued educator and a respected member of the academic community.

Seventeen scientific works were submitted for participation in the competition, including 16 scientific publications (5 of the publications are under indicator B and 11 under indicator D) and one chapter from a book, which is also under indicator D. The materials have not been used in previous procedures for obtaining a PhD or an academic position. It is notable that most of the scientific results achieved have been published in well-established specialized journals with a high impact factor in the respective scientific field, and, accordingly, in the first quartile. The 16 scientific articles presented have been published in journals referenced and indexed in the Scopus and/or Web of Science databases, as follows: Q1 - 10, Q2 - 2, Q3 - 1, Q4 – 2. The candidate's total impact factor (WoS) is 55, and the summated journal rank (SJR) is 11.012. Dr Teneva is the first author in six of the publications and the corresponding author in two of the scientific papers. The candidate's identification data for scientific indicators in global databases are as follows: Scopus Author ID: 55574173000, h-index 7; Web of Science Researcher ID: AAA-4806-2020, h-index 6; ORCID ID https://orcid.org/0000-0002-1009-2899; Google Scholar: h- index 9, i10- index 9.

The significant number of citations of Dr. Teneva's scientific publications confirms their importance. The total number of citations of all scientific publications by the candidate amounts to 107 in Scopus and 78 in Web of Science. Of these, 51 citations are presented for participation in the competition under indicator D (according to Scopus and/or Web of Science). Between 2011 and 2025, some of the scientific results were presented at 24 scientific forums.

Dr. Teneva has made a significant contribution to scientific research and academic activity, demonstrating her involvement at both the national and university levels. During her career, she has participated in five national projects funded by the Scientific Research Fund at the Ministry of Education and Science. At the same time, Dr. Teneva has been involved in four internal university projects funded by the Scientific Research Fund at Plovdiv University Paisii Hilendarski and the Agricultural Academy in Sofia. Within one of these projects, she serves as a leader, demonstrating exceptional skills in coordination, team management, and the successful achievement of research goals. This attests to her competence in organizing scientific research and leading teamwork.

Dr. Teneva's participation in national and university projects reflects her high scientific contribution, as well as her ability to combine individual research with effective teamwork and project management at various levels. Based on her achievements and proven leadership and scientific skills, Dr. Teneva stands out as an authoritative member of the scientific community.
The materials submitted by Dr Teneva for the competition for the academic position of Associate Professor, along with their scientometric indicators, meet the national minimum requirements and fully satisfy the criteria set out in the Regulations for the Development of Academic Staff at Plovdiv University Paisii Hilendarski, as well as the specific requirements of the Faculty of Chemistry. The candidate has declared compliance with these requirements in Table 1.

Table 1. The National Minimum Requirements

Group of indicators	**Minimum required number of points**	**Declared numbers of points**
А	50	50
В	100	125
Г	200	235
Д	50	102
Total	**400**	**512**
Requirements of the Faculty of Chemistry regarding teaching workload	1080 hours	**4536** hours

The candidate's scientific interests and research activities focus on investigating the chemical composition of non-traditional plant crops and food raw materials, aiming to identify biologically active components and evaluate their potential applications in the food, cosmetic, and pharmaceutical industries, including the development of functional foods and animal dietary supplements. The research conducted holds both scientific and applied value.

Scientific contributions

1. For the first time, the chemical composition of the inflorescences and seeds of non-traditional plant crops has been studied: Centaurea thracica, Centaurea benedicta, Amsonia tabernaemontana, Koelreuteria paniculata, Onobrychis viciifolia, Onobrychis transcaucasica, Ailanthus altissima, and white and black quinoa (Chenopodium quinoa). A detailed analysis of the lipid fraction of these crops was performed, with the inflorescences analyzed only for Centaurea benedicta.

- The n-6/n-3 fatty acid ratio and lipid indices (atherogenic and thrombogenic) of oil from Centaurea thracica seeds were determined.
- The energy value of the seeds of Amsonia tabernaemontana Walt was determined.
- The oil from Koelreuteria paniculata was found to be a source of monounsaturated fatty acids.
- The antioxidant potential of Onobrychis viciifolia and Onobrychis transcaucasica seeds has been studied for the first time.
- The DNA-protective activity of Ailanthus altissima oil has been demonstrated for the first time.

2. A detailed characterization of the lipid composition of commercially available Bulgarian cold-pressed flaxseed oil has been performed. For the first time, data on the physicochemical characteristics of the oil, such as density, surface tension, dynamic and kinematic viscosity at temperatures ranging from 20 to 80 °C, are presented.
3. A comparative analysis of the lipid composition of cold-pressed walnut oil originating in Bulgaria (2023) and Turkey (2022) has been performed.
4. Blends of sesame and rapeseed oil have been developed and their fatty acid composition has been studied. A decrease in the peroxide value was found with an increase in the sesame oil content in the mixtures.

5. The chemical composition and antimicrobial activity of essential oil from the fruits of Schizandra chinensis, cultivated in Bulgaria, were determined.
6. The chemical composition of Hypnum cupressiforme moss was described for the first time. Lipid indices were calculated and the n-6/n-3 fatty acid ratio was determined.
7. The chemical composition of the flower buds and fruits of Lagerstroemia indica L., variety "Hopi", grown in Bulgaria, has been studied, and the phospholipid composition of the oils isolated from both parts of the plant has been determined. For the first time, the lipid indices (atherogenicity, thrombogenicity, and hypo-/hypercholesterolemic ratio) of the oils from L. indica, "Hopi," were evaluated.

Scientific and Applied Contributions

1. The chemical composition of raw and roasted pine nuts from two geographical regions of Russia (Baikal and Vladivostok) has been established, revealing differences between the regions. The effect of heat treatment on the composition of the nuts was studied, and it was found that it does not affect their nutritional properties.
2. The phospholipid composition of sweet buttermilk waste was determined and the possibility of using buttermilk as a substitute for emulsifiers and stabilizers in ice cream was demonstrated, improving the texture of the product.
3. The effect of flaxseed oil in the diet of broilers on growth, meat quality, and fatty acid profile has been studied, showing that increasing the oil changes the ratio of saturated/unsaturated/polyunsaturated fatty acids and allows modification of the nutritional value of the meat.

Chief Assistant Professor Olga Tencheva Teneva, PhD fulfills the minimum scientometric indicators specified in the Law for the Development of Academic Staff in the Republic of Bulgaria (LDASRB), as well as all requirements set out in the Regulations of Plovdiv University Paisii Hilendarski for holding the academic position of Associate Professor. Upon review of the scientific publications presented, no evidence of plagiarism or misinterpretation of results was found.

4. Assessment of the candidate's personal contribution

Dr. Teneva is the first author in six of a total of 17 scientific publications, which testifies to her personal contribution and active role in research.

5. Critical Remarks and Recommendations

I have no critical remarks. I recommend that Dr Teneva continue to develop her scientific research.

6. Personal Impressions

I have known Dr Teneva through our collaborative work at the Faculty of Chemistry.

CONCLUSION

The documents and materials submitted by Chief Assistant Professor Olga Teneva meet all the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, and the Regulations for the Development of Academic Staff at University of Plovdiv Paisii Hilendarski.

The candidate in the competition has presented a sufficient number of scientific papers published after the materials used in the defense of the PhD and the academic position of Chief Assistant Professor. The publications contain original scientific and applied contributions, which have received international recognition, a representative part of which have been published in journals and scientific collections published by international academic publishers.

The scientific qualification of Chief Assistant Professor Olga Tencheva Teneva is unquestionable. Her achievements in teaching and research fully meet the minimum national and additional requirements of the Faculty of Chemistry, adopted in connection with the Regulations of Plovdiv University for the application of Academic Staff in the Republic of Bulgaria.

After reviewing the materials and scientific papers submitted for the competition and analyzing their significance and the scientific, scientific-applied and practical contributions contained within them, I find it well-founded to give my positive assessment and recommend to the esteemed Scientific Jury to prepare a report with a proposal to the Faculty Council of the Faculty of Chemistry for the appointment of Chief Assistant Professor Dr. Olga Tencheva Teneva to the

academic position of Associate Professor at Plovdiv University Paisii Hilendarski in the field of higher education 4. Natural Sciences, Mathematics, and Informatics, professional field 4.2. Chemical Sciences (Organic Chemical Technology) for the needs of the Department of Chemical Technology at the Faculty of Chemistry.

06.03.2026 Reviewer:

Plovdiv Assoc. Prof. Mina Todorova, PhD