

# REVIEW

**from Prof. Magdalen Dimitrov Zlatanov, PhD**

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of materials presented for participation in the competition to occupy the academic position

**“Associate professor” at the Plovdiv University “Paisii Hilendarski”**

Field of higher education 4. Natural sciences, mathematics and informatics

Professional direction 4.2. Chemical sciences (Organic chemical technology)

The competition was announced in the SG, number 96 from 11.11.2025 and on the website of Plovdiv University “Paisii Hilendarski” for the needs of the Department of Chemical Technology at the Faculty of Chemistry. The candidate participating in the competition is Chief Assistant Professor Dr. Olga Tencheva Teneva from the Department of Chemical Technology at the Faculty of Chemistry of Plovdiv University “Paisii Hilendarski”.

## **1. General description of the submitted materials**

By order number ПД-22-56 of 09.01.2026 of the Rector of Plovdiv University “Paisii Hilendarski” (PU), I have been appointed as a member of the scientific jury of a competition for the academic position of “associate professor” in the field of higher education: 4. Natural sciences, Mathematics and Informatics, Professional direction: 4.2. Chemical Sciences (Organic Chemical Technology), announced for the needs of the Department of Chemical Technology at the Faculty of Chemistry of PU.

For participation in the announced competition, Ch. Assist. Prof. Dr. Olga Tencheva Teneva from the Department of Chemical Technology at the Faculty of Chemistry of PU has been admitted.

The presented by Ch. Assist. Prof. Dr. Olga Tencheva Teneva, a set of paper and electronic materials is in full compliance with the Rules for the Development of the Academic Staff of the Plovdiv University, and includes the following documents:

1. Application form to the rector for admission to participate in the competition;
2. Curriculum vitae in European format;
3. Diploma of higher education with acquired educational and qualification degree "Master" - original with appendix;
4. Diploma of educational and scientific degree "Doctor" - original;
6. List of scientific works;
7. Scientific works (copies of publications);
  - 7.2. List of citations;
8. Statement of compliance with the minimum national requirements and the additional faculty requirements (if applicable);
9. Annotations of the materials under Article 65 of the PRASPU (in Bulgarian and foreign language), accompanied by an extended habilitation reference list, if no monograph has been submitted;
10. Self-assessment of contributions;
11. Declaration of originality and authenticity of the submitted documents;
12. Certificate of work experience;
13. Documents for academic work;

14. Documents related to research activities;
16. Documents of compliance with the minimum additional requirements of the Faculty of Chemistry at Plovdiv University “Paisii Hilendarski”;
17. Other documents.

Ch. Assist. Prof. Dr. Olga Tencheva Teneva has presented a total of 17 scientific works (16 publications and 1 book chapter), as well as lists of scientific research projects and participations in scientific conferences. All 17 scientific works are submitted for review, they are original and do not duplicate materials used in previous procedures for obtaining the doctoral degree or for occupying the academic position “Chief Assistant”.

The publications meeting the requirements of indicator B4 are 5 in number, and the remaining 12 correspond to indicator Г. A list of a total of 24 conference participations has also been provided (21 of them with international participation).

## 2. Short biographical data

Ch. Assist. Prof. Dr. Olga Tencheva Teneva graduated from PU “Paisii Hilendarski” with a Bachelor’s degree in Chemistry in 2009 and a Master’s degree in Food Chemistry in 2010. In 2011 she was admitted as a full-time PhD student in the Department of Chemical Technology at the same university. She defended her dissertation for the award of the educational and scientific degree “Doctor” in 2014. The topic of her dissertation was: “*Investigations on the composition and oxidative stability of vegetable oil from Bulgarian flax varieties*”. In the same year she was appointed as an Assistant, and since 2015 she has held the position of Chief Assistant in the same department.

## 3. General characteristics of the candidate’s activity

### *Assessment of educational and pedagogical activity*

In the period from 2015 to 2025, the candidate has had the following teaching workload with students in the educational qualification degrees “*Bachelor*” and “*Master*” (Table 1):

**Table 1.** Annual workload at a standard of 360 hours (300 classroom hours and 60 extracurricular hours)

Period	Classroom hours	Extracurricular hours	Total hours
2015 – 2016 <sup>(1)</sup>	269	-	269
2016 – 2017	395	-	395
2017 – 2018 <sup>(2)</sup>	-	-	-
2018 – 2019 <sup>(2)</sup>	-	-	-
2019 – 2020	471	-	471
2020 – 2021	628	-	628
2021 – 2022	687	103	790
2022 – 2023	643	82	725
2023 – 2024	549	60	609
2024 – 2025	556	93	649
			<b>4536</b>

(1) Reduced annual workload of 260 hours due to unpaid leave

(2) Leave due to pregnancy and maternity

The candidate, Chief Assist. Prof. Dr. Olga Teneva, has completed a total of 4536 hours of classroom-based teaching. According to the additional requirements of the Faculty of Chemistry for appointment to the academic position of *Associate Professor*, the minimum required teaching activity is no less than 1080 hours of classroom instruction with students. In addition, the candidate has delivered 719 hours of teaching to students enrolled in paid Master's programmes.

*Lecture courses and laboratory exercises for students in the Bachelor's degree*

Lectures have been delivered with bachelor students in the courses "Chemical industry of Bulgaria" and "Chemical and pharmaceutical industry of Bulgaria" for the specialties "Chemistry" (full-time and part-time education), "Computational chemistry", and "Chemical analysis and quality control".

Laboratory exercises have been conducted with bachelor students in the following courses:

"Organic chemical technology", "Industrial practice", "Applied organic chemistry", "Chemical technologies", "Technology of medicinal products", "Food supplements", "Chemistry of food products", "Food analysis", "Bioorganic chemistry", "Industrial organic chemistry", "Food and food hygiene", "Chemical industry of Bulgaria", "Chemical and pharmaceutical industry of Bulgaria", "Technology of dosage forms", "Materials for medicine", "Polymer chemistry", "High-molecular Macromolecular compounds", and "Practicum". These classes were delivered to students from the following specialties: "Chemistry" (full-time and part-time), "Medicinal chemistry", "Analysis and control", "Computational chemistry", "Chemistry with English", "Chemistry with marketing", "Chemical analysis and quality control", "Biology and chemistry", and "Pharmaceutical biotechnology".

*Lecture courses and laboratory exercises for students in the Master's degree*

Lectures have been delivered in the courses "Foreign substances in food products", "Commodity science of food products", and "Analytical capabilities and applications of modern liquid chromatography" for the Master programs "Food chemistry" and "Chromatographic and spectral analytical control".

Laboratory exercises with master's students have been conducted in the following courses: "Foreign substances in food products", "Chemistry of food products, Part II", "Methods for the analysis of food products", "Commodity science of food products", "Food analysis and control", "Research practice, Part II", "Technology of dosage forms", and "Analytical capabilities and applications of modern liquid chromatography". These were delivered to students enrolled in the Master programs "Food Chemistry", "Chromatographic and spectral analytical control", and "Pharmaceutical chemistry".

*Updating the teaching materials and the methods for continuous assessment*

1. Development of new laboratory exercises for the course "Technology of medicinal products, Part 2" for the specialty "Medicinal Chemistry", 2025
2. Development of a curriculum for the elective course "Methods for determining food authenticity" for the specialty "Forensic chemistry", 2024.
3. Development of a lecture course for the discipline "Commodity science of food products" for the Master's programme "Food chemistry", 2024.
4. Updating the lecture materials for the discipline "Foreign substances in food products" for the Master's programme "Food chemistry", 2023.

5. Development of a curriculum for the elective course “Food and beverage industry in Bulgaria” for the Master’s programme “Food chemistry”, 2021.

6. Updating the curriculum for the courses “Research practice II” and “Foreign substances in food products” for the Master’s programme “Food chemistry”.

7. Development of written examination tests for the course “Foreign substances in food products” and for the state examination component “Foreign substances in food products” for Master’s students in “Food Chemistry”.

Supervision of diploma thesis of students – 5 in total: Gabriela Georgieva, 2025 (ongoing); Elis Yusein, 2025 (ongoing); Zhelyazko Donchev, 2025; Toni Antonova, 2024; Bilyana Solakova, 2024.

### ***Evaluation of scientific and scientifically applied activity***

In the competition for the academic position of “Associate Professor”, Ch. Assist. Prof. Dr. Olga Teneva participates with a total research output of 17 scientific works - 16 scientific publications published in journals indexed in Web of Science and/or Scopus, and 1 book chapter. These works are distributed as follows:

- ✓ 5 scientific publications fulfilling the minimum national requirements under indicator B4;
- ✓ 11 scientific publications in journals refereed and indexed in internationally recognized scientific databases, under indicator Γ7;
- ✓ 1 book chapter under indicator Γ8.

All publications under indicator B4 (5 in total) are in Q1-ranked journals and correspond to 125 points. In these articles, the candidate is the first author.

The publications under indicator Γ7 (11 in total) are distributed as follows: 5 in Q1 journals, 3 in Q2, 1 in Q3, and 2 in Q4. Under indicator Γ8, there is 1 publication. The total number of points under indicators Γ7 and Γ8 amounts to 235 points.

14 of the submitted publications are in foreign journals with impact factor and impact rank, indexed and peer-reviewed in international scientific databases (*Heliyon*  $IF_{2024}=3.6$ ,  $SJR_{2024}=0.644$ ; *Molecules*  $IF_{2024}=4.6$ ,  $SJR_{2024}=0.865$ ; *Plants*  $IF_{2024}=4.1$ ,  $SJR_{2024}=0.888$ ; *Molecules*  $IF_{2024}=4.6$ ,  $SJR_{2024}=0.865$ ; *Foods*  $IF_{2024}=5.1$ ,  $SJR_{2024}=1.021$ ; *Plants*  $IF_{2023}=4.0$ ,  $SJR_{2023}=0.795$ ; *Foods*  $IF_{2023}=4.7$ ,  $SJR_{2023}=0.87$ ; *Appl. Sci.*  $IF_{2023}=2.5$ ,  $SJR_{2023}=0.508$ ; *Industrial Crops&Products*  $IF_{2024}=6.2$ ,  $SJR_{2024}=0.974$ ; *J. Environ. Prot. Ecol.*  $SJR_{2024}=0.147$ ; *Appl. Sci.*  $IF_{2024}=2.5$ ,  $SJR_{2024}=0.521$ . 2 of the publications are in Bulgarian journals – 1 with an impact factor and 1 with a SJR indicator - both peer-reviewed and indexed in Scopus. (*Bulgarian Journal of Agricultural Science* –  $IF_{2022}=0.4$ ,  $SJR_{2022}=0.216$ ); *Bulgarian Chemical Communications* -  $SJR_{2024}=0.148$ ).

Copies of the publications in full text have been provided.

### ***Supervision and Participation in Research Projects***

Ch. Assist. Prof. Dr. Olga Teneva is the leader of 1 project and a participant in 8 additional projects, as follows:

### **Project leader:**

1. МУПД25-ХФ-009 “Chemical and lipid composition of pine nuts from different geographical regions”, funded by the Research Fund of Plovdiv University, 2025-2026.

### **Participation in projects:**

1. National projects funded by the Research Fund of the Ministry of Education and Science
  - 1.1. КП-06-Н73/11, 2023-2026, Project leader Assoc. Prof. Dr. Stoyanka Atanasova
  - 1.2. Д23-ХФ, 2023-2025, Project leader Assoc. Prof. Dr. Stela Statkova
  - 1.3. КП-06-Н39/8, 2019-2025, Project leader Assoc. Prof. Dr. Nina Dimcheva
  - 1.4. КП-06-М29, 2018 - 2021, Project leader Ch. Assist. Prof. Dr. Zhana Petkova
  - 1.5. BG05M2OP001-2.016-0018, “Science and Education for Smart Growth” Programme, 2021-2023, Project leader Assoc. Prof. Dr. Anife Ahmedova
2. Intra-institutional projects
  - 2.1. ТН 23, 2024-2026, Agricultural Academy, Project leader Assoc. Prof. Dr. Violeta Nikolova
  - 2.2. МУ19-ХФ-015, 2019-2021, funded by the Research Fund of PU, Project leader Assoc. Prof. Dr. Maria Angelova-Romova
  - 2.3. ХТАИ146, 2018-2020, Agricultural Academy, Project leader Prof. D.Sc. Lyubomir Angelov

The majority of the publications are the result - either as a project leader or as a member of the research team - of a number of successfully completed scientific projects undertaken after assuming the academic position of Chief Assistant Professor. The research has been carried out in collaboration with colleagues from various structural units of universities and research organizations in Bulgaria and abroad.

The research findings have been presented at 24 scientific conferences, including 3 held abroad and 18 with international participation.

### ***Contributions (scientific and applied) and citations***

#### ***Scientific contributions***

The thematic scope of the presented works corresponds to the scientific interests of Ch. Assist. Prof. Dr. Olga Teneva over the past fourteen years and encompasses the comprehensive evaluation of the chemical composition (protein, cellulose, fiber, carbohydrate and mineral content) and the lipid composition (fatty acid profile of glyceride oils, content and individual composition of sterols, tocopherols and phospholipids) of nuts, seeds, fruits and flower buds from a range of traditional and non-conventional plant species, including *Pinus sibirica* and *Pinus koraiensis* (B4.1); *Centarea thracica* (B4.2); *Centarea benedicta* L. (B4.3); *Amsonia tabernaemontana* Walt. (B4.4); *Lagestroemia indica* L., cultivar Hopi (B4.5); *Hypnum cupressiforme* Hedw. (Г7.2); *Koelreuteria paniculata* (Г7.3); *Linum usitatissimum* L. (Г7.4); *Onobrychis transcaucasica* Grossh. and *Onobrychis viciifolia* Scop. (Г7.6); *Ailanthus altissima* (Г7.8); *Juglans regia* L. (Г7.9) and *Chenopodium quinoa* L. (Г7.10).

The physical and physicochemical characteristics of mixtures of sesame and rapeseed oils have also been investigated (Г7.11). Furthermore, changes in the lipid composition of pine nuts subjected to thermal processing have been monitored (B4.1).

The determination of the above-mentioned parameters enables a comprehensive characterization of the studied objects, with the aim of exploring their potential for incorporation into various food products in order to improve product quality and to assess their prospective application as sources of biologically active compounds. Technological investigations have also

been conducted regarding the ultrafiltration of sweet buttermilk and its use as a substitute for emulsifiers in food products (Г7.5 and Г7.7). In addition, an applicable scheme has been developed for enriching broiler meat with n-3 fatty acids through the controlled inclusion of 1.5% and 3% flaxseed oil in their diet (Г7.1)

### ***Scientific and applied contributions***

- The information regarding the chemical and lipid composition of non-traditional plant species is valuable for their detailed characterization and for the development of food products with improved physical and functional properties, as well as for identifying the presence of biologically active compounds and assessing their potential application in the food, pharmaceutical, cosmetic and other industrial sectors;
- The identification of changes occurring during the thermal processing of various plant oils, along with approaches for enhancing their oxidative stability, provides opportunities for improving their quality and extending their shelf life;
- It has been established that the essential oil of *Schizandra chinensis* can be applied as a preservative in food, cosmetic, and pharmaceutical products, or as an ingredient in formulations intended for the control of pathogenic microorganisms;
- Quantitative reference values have been determined for the formulation of compound feeds for broiler production, which may serve as a model for developing feed recipes in the functional food industry aimed at improving product quality;
- It has been demonstrated that the investigated moss species, in addition to its traditional role as a bioindicator of environmental pollution, can be integrated into the food and pharmaceutical industries as a source of valuable nutrients and bioactive compounds;
- It has been demonstrated that ultrafiltered buttermilk can successfully replace synthetic emulsifiers and stabilizers, thereby meeting consumer demand for natural products;
- Practical guidelines have been provided for extending the shelf life of vegetable oils. It has been shown that blending rapeseed oil with sesame oil reduces production costs, preserves or enhances certain functional properties, and can be applied in the development of functional foods.

The obtained results and the conclusions drawn may serve as a reference basis for future research and contribute to improving consumer awareness prior to the use of a given product.

Based on the materials submitted by Ch. Assist. Prof. Dr. Olga Teneva as of 2025, the total number of citations (excluding self-citations) across all scientific publications is 107 in Scopus and 78 in Web of Science. The citations listed for the competition under Indicator Д (according to Scopus and/or Web of Science) amount to 51 and are included in the materials provided for review. All listed citations are from foreign authors, which demonstrates that the results presented in the scientific publications have received recognition from the international scientific community

Table 2 presents the minimum national required number of points by group of scientific metric indicators as well as the additional faculty requirements for holding the academic position of Associate Professor in professional direction 4.2 Chemical Sciences, together with their fulfilment.

**Table 2.** Minimum national and additional faculty requirements with the number of points by groups of scientometric indicators and their fulfilment.

<b>Minimum national point requirements by groups of indicators for the academic position of Associate Professor in field 4.2 Chemical Sciences</b>			
<b>Metric groups</b>	<b>Content</b>	<b>Ass. Professor – number of points</b>	<b>Performance – number of points</b>
A	Indicator 1	50	<b>50</b>
B	Sum of points from indicators 3 and 4	100	<b>125</b> (from indicator 4)
Г	Sum of points from indicators 5 – 10	200	<b>235</b> (from indicator 7 and 8)
Д	Sum of points from indicator 11	50	<b>102</b>
	<b>Total:</b>	400	<b>512</b>
<b>Additional faculty requirements related to teaching activity</b>		No fewer than 1080 hours of classroom-based instruction	<b>4536</b>

The points indicated under each criterion are clearly described and supported by evidence. With respect to all mandatory scientometric indicators, as well as the indicators related to teaching activity, the candidate meets the requirements of the competition for the academic position of Associate Professor.

#### **4. Assessment of the personal contribution of the candidate**

Ch. Assist. Prof. Dr. Olga Teneva serves as a leader or key researcher in the majority of the scientific projects. All publications have been produced in co-authorship with teams of varying size. In the 5 articles submitted under indicator B4, Olga Teneva is the first author. Her individual contribution to the publications under indicator Г7 is demonstrated by the fact that she is first author in one paper, second author in three papers, sixth author in three papers as well as third, fifth, eighth, and ninth author in the others, an indicator of her substantial involvement in the research outputs. In the published book chapter, Dr. Teneva is listed as the third author.

#### **5. Critical remarks and recommendations**

I have no remarks or recommendations. The exceptionally high teaching workload of Ch. Assist. Prof. Dr. Olga Teneva is noteworthy, and it would be appropriate to explore possibilities, where available, for its reduction.

#### **6. Personal impressions**

I have known Ch. Assist. Prof. Dr. Olga Teneva since her admission to PU “Paisii Hilendarski” as a student and later as a PhD student. My impressions are entirely positive. Throughout this period, as well as during her work as an Assistant and subsequently as a Chief Assistant, she has continuously enhanced her theoretical and practical expertise, mastered the operation of the modern scientific instrumentation available in the department, and demonstrated excellent teamwork with all members of the academic and research staff.

## CONCLUSION

The documents and materials submitted by Ch. Assist. Prof. Dr. Olga Teneva comply with all requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for the Implementation of LDASRB and the relevant Regulations of PU "Paisii Hilendarski"

The candidate has submitted a sufficient number of scientific works published after the materials used for the defense of the PhD degree and the competition for the academic position of Chief Assistant Professor. The candidate's publications contain original scientific and applied scientific contributions, which have been published in journals indexed and abstracted in the international databases Scopus and/or Web of Science and have been disseminated at numerous national and international scientific forums. The scientific and teaching qualifications of Ch. Assist. Prof. Dr. Olga Teneva are beyond doubt.

The scientometric data and the documentation submitted regarding the teaching activities of Ch. Assist. Prof. Dr. Olga Teneva fully comply with the minimum national requirements and the additional requirements of the Faculty of Chemistry, adopted in accordance with the Regulations for the Development of the Academic Staff at PU "Paisii Hilendarski" for the implementation of the Act for the Development of the Academic Staff in the Republic of Bulgaria.

After reviewing the materials and scientific works submitted for the competition, and following an analysis of their significance and of the scientific and applied scientific contributions they contain, I find it well-founded to give my **positive assessment** and to recommend that the Scientific Jury prepare a report and proposal to the Faculty Council of the Faculty of Chemistry for the election of Ch. Assist. Prof. Dr. Olga Tencheva Teneva to the academic position of Associate Professor at PU "Paisii Hilendarski" in: Field of higher education 4. Natural sciences, mathematics and informatics; Professional direction 4.2. Chemical sciences (Organic chemical technology)

17.02.2026

Reviewer: .....

(Prof. Magdalen Zlatanov PhD)