SHORT REVIEW

by
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Member of the Academic Jury set to render a decision on the competition for filling the academic position of a professor in the professional field 4.2. chemical sciences according to the classifier of the areas of higher education and the professional fields (Scientific Specialty “Physicochemistry”)

This Short Review is prepared in response to Order № РД-38-174 of 01.04.2022, issued by the rector of Sofia University "St. Kliment Ohridski", following the decision made by the Academic Jury that was held on 27.05.2022. The Review is in compliance with the Development of Academic Staff in the Republic of Bulgaria Act (DASRBA), the Rules for the Application of the Development of Academic Staff in the Republic of Bulgaria Act, the Rules of Sofia University "St. Kliment Ohridski" and with the Rules set at the Faculty of Chemistry and Pharmacy, for applying the act aforementioned

1. Presentation of the candidate

Assoc. prof. Veselin Petrov, graduated from Sofia University "St. Kliment Ohridski", Faculty of Chemistry and Pharmacy, with a master's degree in 1996 in the specialty "Particularly pure substances and materials based on them". In 2006 he defended his dissertation entitled: "Modern methods for the analysis of tautomeric and dimerization processes" for the acquisition of the educational and scientific degree of Doctor. From 2006 to 2014 he was Senior Researcher / Photochemistry and Supramolecular Chemistry, Faculty of Science and Technology, New University of Lisbon, Portugal. In the period 2013-2015, he was a Visiting Researcher at Sofia University "St Kliment Ohridski under the project "Beyond Everest". In 2015, after winning a competition, he was appointed as a senior assistant professor at the Department of Physicochemistry. Since 2017 he has been an associate professor in the same department.

Research and science metrics

In the competition, Assoc. prof. Veselin Petrov participated as a co-author with 23 scientific papers in high-impact factors journals, which are distributed by quartiles as follows: in Q1 - 13; in Q2 - 7; in Q3 - 2; in Q4 -1.
His original scientific results are of undisputed fundamental and applied nature, with relevance to physical chemistry. They have all been published in the last ten years and can be grouped into three main categories:

- Preparation and investigation of the properties of new synthetic flavonil salts
- Preparation and investigation of the physicochemical and spectral properties of inclusion complexes in cyclodextrins and curcubiturils
- Preparation and characterization of complexes of rare earth elements

The relevance and importance of these papers are evidenced by the fact that they have been cited a total of 427 times, with 250 citations noted since 2017 (Scopus and WoS databases, excluding self-citations). In accordance with the requirements of DASRBA and the Law on the Acquisition of Scientific Degrees and Academic Positions at the Faculty of chemistry and pharmacy of Sofia University "St Kliment Ohridski". In the present competition Assoc. Prof. Dr. Veselin Petrov participated with 1100 points, which exceeds the required 760 points. Since 2006 Assoc. prof. Petrov holds the educational and scientific degree "Doctor", which means that he fulfills the requirement of the mandatory group A indicator of 50 points. The habilitation thesis describes the influence of various factors on the change of the structure of flavia and anthocyanins and their colour indices. Additional six publications containing 135 points are presented in group B, bringing the total for this indicator to 270 items. 13 scientific publications are given for indicator G. Similar to the publications in group B, the research in this group is published in journals with high impact factor and quadrilles (nine of them with Q1, two with Q2, and two with Q3) with which he has 295 points covers the required 220 points for this indicator.
From the presented reference of citations by indicator D, it can be seen that in the competition Assoc. prof. Petrov has submitted six papers, which collected 204 points out of the required 120 points. 223 points have been submitted under indicator E,

covering the project's activity, out of the required 120 points. 152 points have been submitted under indicator G, out of the required 120 points.

Teaching and learning

The teaching activity of Assoc. prof. Veselin Petrov at the Faculty of chemistry and pharmacy is very diverse. It includes lectures and practical exercises as follows:

- Physicochemistry Part I (Thermodynamics) - Seminars and Exercises Physicochemistry Part II (Kinetics and Statistical Thermodynamics) - seminar classes
- ICS - lectures and exercises
- Information Technologies - lectures and exercises
- POD and NIT Part I and II - lectures and seminar classes
- Chemical Informatics - lectures and exercises
- Non-Equilibrium Thermodynamics, lectures and exercises
- Near Infrared Spectroscopy (NIR), lectures and exercises
- Physical Chemistry and Colloidal Chemistry (I and II), lectures

In addition, during his stay at the University of Lisbon, he also held classes with students
- Mathematical modeling in Chemistry - lectures and exercises
- General and Analytical Chemistry - exercises
- Introduction to Programming in Java, C and C++ - lectures and exercises, Code Academy

Opinions, recommendations, and notes

I have no remarks regarding the submitted materials under the competition. They are prepared correctly and clearly distinguish the scientific contributions of the candidate and fully meet the requirements of the law and the regulations of Sofia University "St. Kliment Ohridski ». My personal impressions of Dr Petrow are excellent. He is always positive, responsive, and willing to cooperate with colleagues.

Conclusion

According to the requirements DASRBA, on the grounds of the documentation presented by the candidate, his publications reviewed and the above assessment, I recommend supporting the election of **Assoc. prof Veselin Petrov** as a successful candidate for filling the academic position of a **Professor** in the professional field 4.2. Chemical Sciences (Phisicochemistry).

Date: 7.07.2022

Reviewer: ……

Prof. Ivo Grabchev