

OPINION

by Prof. DSc. Panteley Petrov Denev
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in a competition for the academic position of „Associate Professor“
in the field of higher education: 4. Natural sciences, mathematics and
informatics

Professional field: 4.2. Chemical sciences

Scientific specialty: Ecology and Environmental Protection (Ion exchange and
bioelectrochemical methods for water purification), published in the State
Gazette, issue 87/19.10.2021

Candidate PhD. Blagovesta Nikolaeva Midyurova, Chief Assistant in the
Department of Ecology and Environmental Protection at the University „Prof.
Assen Zlatarov“

GENERAL CHARACTERISTICS

The candidate PhD. Blagovesta Nikolaeva Midyurova presents all the
documents necessary for participation in the competition. The peer-reviewed
documents on the topic of the competition include: independent scientific
monograph; publications, referenced and indexed in Scopus and / or Web of
Science databases, a total of 17, of which 5 independent and 12 co-authored; 2
independent publications, which are referenced and indexed in world-famous
databases with scientific information (Conference Proceedings); participation in
8 research projects (national scientific or educational project - 5; international
scientific or educational project - 3).

According to indicator A of the national minimum requirements Blagovesta
Nikolaeva Midyurova has 50 points. She is registered with NACID for possession
of diploma No. 0041/30.05.2016 for acquiring „PhD“ in the professional field
5.10. Chemical technologies, after successful defense of the topic „Application of
proton-exchange membranes in fuel cells“, 02.22.02 „Technology for water
purification“ with scientific supervisor Prof. Valentin Nenov.

According to indicator B, the candidate presents an independent scientific
monograph Ionic exchange conditioning of natural waters, University "Prof.
Assen Zlatarov", 2019, ISBN 978-954-471-572-4 and scientific reviewers Assoc.

Prof. Daniela Simeonova Toneva-Zheinova and Assoc. Prof. Alexander Nikolov Dimitrov. The monograph is approved by NACID, which carries 100 points.

A list of 19 publications in the period from 2017 to 2021 is presented, as 13 are indexed in quartile Q3 (total 195 points), 3 are indexed in Q4 (total 36 points) and 3 are referenced (total 30 points). According to this indicator, PhD Blagovesta Nikolaeva Midyurova presents 261 of the 200 points required according to the national minimum requirements.

Evidence for 44 citations in 11 of the applicant's publications is presented under indicator E „Citation in scientific journals, monographs, collective volumes and patents, referenced and indexed in world-famous databases of scientific information (Web of Science and Scopus)“. The 88 points received exceed the national minimum requirements of 50 points. In the Scopus database Blagovesta Midyurova is presented so far with a total of 56 citations (without auto-citations), which gives me reason to assume that it covers the specific requirements of the University „Prof. Assen Zlatarov“.

According to indicator D for „Participation in a national scientific or educational project“ the candidate declares a total of 110 points out of the minimum 100, which are according to the specific requirements of the University „Prof. Assen Zlatarov“. Of these, 50 points for participation in three national research projects under the Operational Program „Human Resources Development“, one under the NNP „Young Scientists and Postdoctoral Fellows" and one project under "Science and Business“. The remaining 60 points are from participation in three international projects.

AUDIT ACTIVITY

For participation in the competition are attached documents proving the teaching and research activities: teaching experience at the moment - 5 years (assistant and chief assistant); inquiries about the number of lectures and exercises in the Bachelor's and Master's degrees; developed curricula - 12 pieces: for Bachelor's degree - 6 and Master's degree - 6; list of successfully defended graduates.

For the last three years PhD Blagovesta Nikolaeva Midyurova gives 1567 classroom lectures and exercises on „Climatology and Hydrology“, „Water Pollution and WPP“, „Fluid Purification“ and „Project (Water)“. All disciplines are from the curriculum for the bachelor's degree in „Ecology and Environmental Protection“ and „Ecology and Environmental Management“ at the Faculty of Natural Sciences. She also conducted 930 classroom classes in the subjects of the

curriculum for the Master's degree of broad and narrow profile of the same specialties are "Water Pollution and WPPs", "Water Management", "Marine Ecology" and "Specific technologies to limit anthropogenic pressure on the hydrosphere". For the respective academic disciplines she took part in the development of the curriculum. For the respective academic disciplines she took part in the development of the curriculum. PhD Blagovesta Midyurova was the research supervisor of four successfully defended graduates: one in 2019, two in 2020 and one in 2021.

MAIN CONTRIBUTIONS

The scientific and scientific-applied contributions of the works of Ch. Assistant Professor Dr. Blagovesta Midyurova are in the field of ecology and environmental protection (Ion exchange and bioelectrochemical methods for water purification), which corresponds to the announced competition for „Associate Professor“. One of the trends in modern research is aimed at solving one of the most pressing problems of our time - water pollution and their impact on ecosystems. The scientific publications presented by the candidate are multidisciplinary. They cover three of the priority areas of the „National Strategy for the Development of Research“, 2030 and the „Strategy for the Development of Research Activities of the University" Prof. Assen Zlatarov” for the period 2017-2025, namely:

- environment (water, soil, air) and biodiversity;
- energy efficiency and alternative energy sources;
- mathematical modeling and computer simulations.

The application of ion exchange and bioelectrochemical methods for water purification opens a future opportunity to overlap two of the priority areas - Environment (water) and alternative sources of green energy. The scientific research also covers the third priority area - computer simulations, in order to predict the behavior of bioelectrochemical systems (BES). Water pollution assessment was performed by applying neural networks and fuzzy sets, analysis of variance and mathematical modeling of processes.

All the scientific production with which Ch. Assistant Professor Dr. Blagovesta Midyurova participates in the competition is focused on these three priority areas. Evidence of current and promising topics are the citations in international scientific journals such as: Journal of Power Sources with Impact Factor – 9.127, International Journal of Hydrogen Energy with Impact Factor –

5.816, Bioelectrochemistry with Impact Factor – 5.373, RSC Advances with Impact Factor – 3.390 and in others with a high index-reference.

In the course of his research work, Ch. Assistant Professor Dr. Blagovesta Midyurova has participated in several international research teams. Proof of this are the reviews provided by four international scientific organizations: American University of Sharjah, Tekirdag Namik Kemal University, Cyprus Science University and University of Kragujevac. The candidate has participated in the organizing committees of two conferences - the International Scientific Conference "Environmental Engineering and Environmental Protection" and the National Conference for Pupils and Students "Think Ecologically for the Future".

The candidate has presented a list of eleven researchers who declare equal participation in co-authorship with Blagovesta Midyurova on the presented publications. I did not find any evidence of plagiarism.

CONCLUSION

The presented materials from Blagovesta Midyurova meet the national requirements of the Regulations for the implementation of the Law on the Development of Academic Staff in the Republic of Bulgaria for the award of the academic position "Associate Professor" in the professional field: 4.2. Chemical sciences. I give a positive assessment of the scientific, research and teaching activities of Blagovesta Nikolaeva Midyurova and I propose the Faculty Council of the Faculty of Natural Sciences at the University "Prof. Assen Zlatarov" - Burgas, to elect her to the academic position of "Associate Professor" in the field of higher education: 4. Natural Sciences, Mathematics and Informatics, professional field: 4.2. Chemical sciences, scientific specialty: Ecology and environmental protection (Ion exchange and bioelectrochemical methods for water purification), published in the State Gazette, issue 87/19.10.2021

Date: 25.01.2022

Jury member: