

OPINION

By Prof. Stefan Tsakovski, PhD

Faculty of Chemistry and Pharmacy – Sofia University “St. Kliment Ohridski”,

Chair of the Scientific Jury appointed with Order № RD 38-175/01.04.2022

Regarding the call for the academic position “Associate Professor”,

Professional Field 4.2. Chemical sciences (Inorganic chemistry)

for the needs of the Department of Inorganic Chemistry,

Faculty of Chemistry and Pharmacy – Sofia University “St. Kliment Ohridski”,

In the call for the academic position “Associate Professor”, published in the State Gazette issue 21 dated 15 March 2022, the only candidate is Head Assist. Prof. Dr. Nina Veselinova Kaneva-Dobrevska

1. General presentation of the career development of the applicant

Nina Veselinova Kaneva-Dobrevska is a Bachelor in Science in Computational Chemistry (2011) and a Master in Science in Medicinal Chemistry (2012) from the Faculty of Chemistry and Pharmacy – Sofia University “St. Kliment Ohridski” (FCP-SU). In 2016 she acquired the educational and scientific degree “Doctor of philosophy” with a thesis entitled “Photocatalytic Water Purification from pharmaceutical pollutants”. Since 2007 she has worked in the Nanoparticles Science and Technology Laboratory of the Department of Inorganic Chemistry FCP-SU occupying successively the positions Assist. Prof. and Head Assist. Prof. In the period 2015-2021 Dr. Kaneva had taught at the National High School of Natural Sciences and Mathematics “Acad. L. Chakalov” and had worked at the Institute of Molecular Biology, Bulgarian Academy of Sciences (2011-2012).

Her teaching activities and commitments in the FCP-SU are related to the preparation and conduct of laboratory works and seminars in the topics “General Chemistry”, “General and Inorganic Chemistry”, “Inorganic Chemistry” and “General Chemistry and Stoichiometric Calculations”. Dr. Kaneva has been a supervisor of 13 student courseworks.

In the period 2008-2012 she had participated in two training seminars at the Michigan State University and had research stays at the Charles University (Prague, Czech Republic) and Bar-Ilan University (Ramat Gan, Israel). All of them have contributed to her research development with a focus on the application of phototalitic technologies in the water purification from organic pollutants.

2. Assessment of compliance to the requirements

Head Assist. Prof. Dr. Nina Kaneva-Dobrevska has provided all necessary materials and they are in accordance with the Act on the Development of the Academic Staff in the Republic of Bulgaria (ADASRB), the Regulations on its implementation, and the Internal Rules of Sofia University “St. Kliment Ohridski”, as well as the specific recommended criteria of FCP-SU. In the section below the data of the applicant’s activities are summarized and evaluated in accordance with the specific recommended criteria of FCP-SU:

- Group B – 6 scientific publications are presented, in journals that are referenced and indexed in world scientific information databases (1-Q1, 2-Q2, 1-Q3, 2-Q4): a total of 104 scores have been collected at a minimum of 100.

- Group Γ – 12 scientific publications ((3-Q1, 4-Q2, 3-Q3, 2-Q4) and book chapter are presented: a total of 249 scores have been collected at a minimum of 220 scores according to the specific recommended criteria of FCP-SU.

All scientific works presented do not repeat the ones that have been previously used in the PhD degree.

- Group Д – in total 94 citations are presented resulting in 94 scores at a minimum of 70 scores according to the specific recommended criteria of FCP-SU.

- Group Ж – h-index 12, participation in 9 research projects; collected 165 scores at a minimum of 70 according to the specific recommended criteria of FCP-SU.

Based on the total scores of the applicant according to the indicators for each of the groups from A to the Ж it can be concluded that Dr.Nina Kaneva-Dobrevska meets the specific recommended criteria of FCP-SU, as well as the minimum national requirements according to ADASRB and the Regulations on its implementation.

3. Evaluation of the applicant's research activities

The contributions of Head Assist. Prof. Dr. Nina Kaneva-Dobrevska are of fundamental and applied nature. The applicant's research is in the field of heterogeneous photocatalysis for the purification of dyes and pharmaceuticals, as well as in various methods of producing a nanostructured ZnO (thin films and powders). I accept the scientific contributions in the applicant's report as original and correctly formulated. They can be summarized as follows:

1. Synthesis, characterization and photocatalytic properties of semiconductor ZnO.
2. Synthesis, characterization and phototacalytic properties of modified ZnO.

Much of the research of Dr. Nina Kaneva-Dobrevska is in collaboration with colleagues from FCP-SU, however there is also a growing trend for active collaboration with a number of groups with diverse research topics in Bulgaria and abroad. These elements of interdisciplinarity and active research collaboration determine the applicant as an advanced, promising researcher.

Evaluation of the applicant's personal contribution to the presented scientific works

The majority of the scientific publications of Head Assist. Prof. Dr. Nina Kaneva-Dobrevska are of high quality and are published in prestigious scientific journals. The citations of her publications are an essential indicator of recognition in the scientific community. In 14 of the publications, she has a leading role as a first author.

Recommendations to the applicant for future investigations

In view of the practical implementation of the proposed by Dr. Nina Kaneva-Dobrevska approaches for water purification, I would recommend her to direct future research towards priority organic pollutants according to the Water Framework Directive.

CONCLUSION

The materials submitted for participation in this call meet and exceed the requirements of the Act on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations on its implementation, the Internal Rules of Sofia University “St. Kliment Ohridski” as well as the recommended specific criteria of the Faculty of Chemistry and Pharmacy – Sofia University „St. Kliment Ohridski“.

The materials of the call, as well as my personal impressions from Nina Kaneva-Dobrevska give me a reason to conclude that she is a researcher with high academic standards and significant research activities, and her position contributes to the development of the Department of Inorganic Chemistry.

Based on what has been previously said, I give a positive assessment and recommend to the respected Scientific Jury to vote for the appointment of Head Assist. Prof. Dr. Nina Veselinova Kaneva-Dobrevska, as an Associate Professor in the Area of Higher Education 4. Natural sciences, Mathematics and Informatics, Professional Field 4.2. Chemical Sciences (Inorganic chemistry) for the needs of the Department of Inorganic Chemistry, Faculty of Chemistry and Pharmacy, Sofia University “St. Kliment Ohridski”.

10.07. 2022

Prof. Stefan Tsakovski