

O P I N I O N

by

Assoc. Prof. Dimitar Nikolaev Petrov, PhD
Dept. of Physical Chemistry, Faculty of Chemistry,
Plovdiv University "Paisii Hilendarski"

Concerning the materials submitted for participation in the competition for the awarding of the academic position "Associate Professor" of Sofia University "Kliment Ohridski" in the field of higher education 4. Natural sciences, mathematics and informatics; professional field 4.2. Chemical Sciences (Theoretical Chemistry)

By order RD38 - 446 / 24.07.2019 of the Rector of Sofia University "Kliment Ohridski" I was selected as a member of the scientific jury for the competition for awarding of the academic position "Associate Professor" for the needs of the Department of Inorganic Chemistry at the Faculty of Chemistry and Pharmacy. The competition was announced in the State Gazette no. 52 / 2.07.2019. At the first non-attendance meeting of the scientific jury I was appointed to prepare an opinion on the competition materials.

One candidate is participating in the abovementioned competition Assistant Professor Miroslava Alexandrova Nedyalkova, PhD, from the Department of Inorganic Chemistry at the Faculty of Chemistry and Pharmacy, Sofia University. The candidate graduated with a Bachelor's Degree in Physics and Chemistry in 2004, and in 2006 completed her Master's Degree in Pharmacological and Medical Biophysicochemistry at the Faculty of Chemistry at Sofia University. In 2014, after successfully defending her dissertation at the University of Sofia, in collaboration with the University of Barcelona, she obtained a PhD of 4.2. Chemical Sciences (Theoretical Chemistry). The candidate's scientific advisor is Professor Sergio Madurga from the University of Barcelona, Spain. The academic career of the candidate began in 2005 as an assistant in the same department of the Faculty of Chemistry, and since 2016 she was elected as assistant professor.

The materials that Dr. Nedyalkova presented in electronic form are in accordance with the RDAS (Rules for the development of academic staff) of the Sofia University. A list of 29 articles, one co-authored book and one English-language monograph of Dr. M. Nedyalkova, are attached to them. Autobiography in English, application to the Rector for admission to the competition, reports on the candidate's out-of-class and out-of-class employment, a list of publications containing the quartiles of each article, a list of citations (60), annotation of the materials etc. are also presented. I do not know the applicant personally and have no common scientific publications, communications or projects with her. The numerous international stays of Dr. Nedyalkova of different duration within the framework of different European projects and the ERASMUS + program make a great impression. There are such world-renowned centers as the Technical University - Vienna, Austria, the University of Fribourg - Switzerland, the University of Geneva, University of Barcelona - Spain, the ESPCI Center Paris, France, where the largest part of her visits coming to the University of Barcelona. Dr. Nedyalkova's participation in international projects and visits to internationally recognized scientific centers not only promotes the results of the applicant's scientific field, but also offers opportunities to broaden her horizons and come up with new ideas.

Scientific work :

Dr. Nedyalkova presents for the participation in the competition for the awarding the academic position "Associate Professor" 16 scientific works, which are not part of her PhD dissertation. Of these, 15 were scholarly publications in refereed and indexed journals and one published monograph in English that was not presented as a major habilitation work. The journals have a high impact factor, with the following being noted: Adv. Colloid Interface Sci. (IF: 8.243), The Science of the Total Environment (5.589), Journal of Materials Science and Technology (5.040), Environmental Research (5.026), Ecotoxicology and Environmental Safety (4.640), Journal of Chemical Information and Modeling (3.966), Molecules (3.060), Powder Technology (3.413) etc. Concerning the citation of the submitted papers, Dr. Nedyalkova presents a total of 60 citations, 30 of which are in the publications participating in the "Associate Professor" competition. The Hirsch index, according to the SCOPUS report, is $h = 4$. The number of publications and citations completely satisfy the specific requirements

of the Faculty of Chemistry and Pharmacy at Sofia University for the obtaining of the academic position of “Associate Professor”. The main contributions of the candidate are in the field of molecular dynamics and chemometrics of nanoobjects. They are presented in detail in the applicant's contribution record. The applicant's research findings have also been presented at 34 national and international scientific conferences. Dr. Nedyalkova also participates in 21 national and international scientific projects. It is noteworthy that in 6 of them she is a scientific advisor (contracts № 1, 3, 16, 17, 19 and 21 according to the numbering in the reference). Dr. Nedyalkova is a scientific supervisor of a thesis, defended in 2018 and also is a scientific advisor of a doctoral dissertation.

Conclusion :

The materials of the procedure meet completely the requirements of the Law for the Development of the Academic Staff of the Republic of Bulgaria and the relevant regulations.

The high publication activity, the high impact factor of the journals, the citations, the guidance and the participation in numerous international and national scientific projects are clear evidence that Dr. Nedyalkova is a well-established and independent scientist capable of leading her own research group, generate new ideas and set scientific tasks, skills required for the position of an Associate Professor.

Because of the above, I give my **positive** assessment to the applicant and recommend to the scientific jury to propose to the Faculty Council of the Faculty of Chemistry and Pharmacy to choose Dr. Miroslava Alexandrova Nedyalkova at the academic position of *Associate Professor* in field of higher education: 4. Natural Sciences, Mathematics and Informatics; professional field 4.2. Chemical sciences (Theoretical Chemistry).

1.10.2019

Plovdiv

Assoc. Prof. Dimitar Petrov, PhD :