

OPINION

from Prof. Hristiyan Aleksandrov Aleksandrov

Faculty of Chemistry and Pharmacy, Sofia University "St. Kliment Ohridski"

on the application of Head Assistant Professor Dr. Gloria Said Issa-Ivanova, in Competition for Associate Professor in Professional Degree 4.2 Chemical Sciences, scientific specialty "Organic Chemistry" for the needs of the laboratory "Organic reactions on microporous materials" at the Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, announced in Bulgarian State Gazette No. 55 of 15/07/2022

Head Assist. Prof. Gloria Said Issa-Ivanova is the only candidate at the competition for associate professor. In 2011, she completed her Master's in "Medicinal Chemistry" at the Faculty of Chemistry and Pharmacy of Sofia University "St. Kliment Ohridski". In 2015 she obtained her PhD in chemistry from the Institute of Organic Chemistry with Centre of Phytochemistry (IOCCP), Bulgarian Academy of Sciences (BAS). The title of her PhD thesis is "Catalytic removal of harmful emissions from ethyl acetate using nano-sized multicomponent metal oxide composites". From January 2015 until now, she has been working in the laboratory "Organic reactions on microporous materials" of the IOCCP-BAS, initially as an assistant professor, and in January 2017 she became a head assistant professor. As a PhD student, Dr. Issa-Ivanova performed a one-month specialization at the Institute of Chemical Technology, UPV-CSIC, Valencia, Spain, within the program "Science and Business". In the period 01.10.2018 - 01.07.2019 she has done a specialization as a post-doctoral fellow at Jan Evangelista Purkyně University, Czech Republic.

I was not able to find a list of all the publications of Dr. Issa-Ivanova. In the Scopus database, she has co-authored 32 scientific publications in refereed and indexed journals. Some of these journals are among the most respected ones in the field of catalysis: *Catalysis Science and Technology*, *Applied Catalysis A: General*, *Catalysis Today*, *Applied Surface Science*, *ACS Applied Materials and Interfaces*, *Journal of Colloid and Interface Science*, *Microporous and Mesoporous Materials*, *Reaction Kinetics, Mechanisms and Catalysis*, etc. Up to now, these papers have been cited 201 times, and the candidate's h-factor is 8 (according to data from Scopus excluding self-citations of all co-authors).

Dr. Issa-Ivanova participates in the competition with 19 scientific publications in refereed and indexed journals (12 publications allocated to indicator "Γ" and 7 publications allocated to indicator "B"), 7 of them are in journals from the first quartile (Q1), 3 publications are in Q2, while 2 and 6 publications are in Q3 and Q4, respectively. One of the publications is in a journal with SJR (no IF). A list of 131 citations to these publications is also provided.

**Fulfillment of the requirements for occupation of the academic position
“Associate Professor”**

Indicator	A	Б	В	Г	Д	Е	Ж
National requirements	50	-	100	200	50	-	-
Minimum requirements of IOCCP-BAS	50	-	100	220	70	-	5
Fulfilled requirements	50	-	127	220	262	-	8

From the scientific achievements of Dr. Issa-Ivanova and the data presented in the table above, it is evident that she meets all the minimum national requirements provided in the Law on the Development of Academic Staff in the Republic of Bulgaria, as well as the additional criteria of IOCCP-BAS for the academic position of "Associate Professor".

The candidate's scientific contributions can be grouped into four main areas:

1. Development of new catalytic systems based on nanostructured mesoporous metal oxide composites.
2. Characterization of the properties of materials by using a vast number of modern physicochemical methods.
3. Increasing the efficiency for removing toxic emissions from VOCs (for instance ethyl acetate) through catalytic oxidation.
4. Increasing the efficiency of using methanol (both from renewable and waste raw materials) to obtain an alternative fuel.

All topics are very timely and interesting for the catalytic community. In many of the studies, complex di-, tri-, and multicomponent catalytic systems were considered and characterized. I find very interesting the papers in which are developed highly efficient approaches for the preparation of nanostructured mesoporous oxide materials that possess appropriate textural and surface properties for the preparation of new catalysts with potential applications as alternative fuels and in ecology.

Head Assistant Professor Issa-Ivanova has participated in one international and eight national research projects. The scientific results were reported at 32 national and international forums, in which 48 oral or poster presentations were presented in total.

In conclusion, taking into account the applicant's scientific results and achievements mentioned above, I consider that Head Assist. Prof. Gloria Said Issa-Ivanova fully meets all the minimum national requirements as well as the criteria of the Institute of Organic Chemistry with Centre of Phytochemistry at the Bulgarian Academy of Sciences for occupation of the academic position "Associate Professor" and I strongly recommend that she should be selected as "Associate Professor" in professional field 4.2 Chemical Sciences, scientific specialty "Organic Chemistry" at the Institute of Organic Chemistry with Centre of Phytochemistry at the Bulgarian Academy of Sciences.

Sofia

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Prof. Dr. Hristiyan Aleksandrov