



ATTITUDE OF REVIEWER

With respect to the competition, published in „Newspaper of State”, issue 55/27.06.2023 for occupying the academic position “Associate Professor” in professional field 4.2 “Chemical Sciences”, scientific research specialty “Chemical Kinetics and Catalysis” for the needs of the Institute of catalysis at the Bulgarian Academy of Sciences, Laboratory “Catalysis for Energy and Environmental Protection”

Candidate: Assistant Professor Ivan Bogoev Ivanov

Member of the Scientific Jury: Prof. Yuri Kalvachev, Institute of Catalysis, Bulgarian Academy of Sciences

The only candidate in the competition is Assist. Prof. PhD Ivan Bogoev Ivanov, who works in the Laboratory „Catalysis for Energy and Environmental Protection“ in the Institute of Catalysis, BAS.

Ivan Bogoev graduated from the Institute of Chemical Technology and Metallurgy - Bourgas in 1994 as a Master of Chemistry, in specialty “Water technology”. In 2003 he enrolled as a PhD student in the Institute of Catalysis after winning a competition and then in December 2008 successfully defended educational and scientific PhD degree in the specialty “Chemical Kinetics and Catalysis” under the supervision of Prof. Donka Andreeva. The topic of the PhD thesis was "Gold catalysts supported on $\text{CeO}_2\cdot\text{Al}_2\text{O}_3$ for the water-gas shift reaction". In the meantime, he joined the Institute of Catalysis - BAS as an Assistant Professor in the group of Prof. Donka Andreeva and grew as a researcher under her supervision. Today he is an assistant professor at the “Catalysis for Energy and Environmental Protection” Laboratory at the same institute.

A positive role in the scientific development of the candidate was played by several short-term specializations abroad - in Seville, Spain; Trondheim, Norway and Palermo, Italy where prof. Andreeva had a long-standing collaboration with scientists from the Institute for the Study of Nanostructured Materials.

The scientific interests of Assist. Prof. Dr. Ivan Ivanov are mainly in the field of heterogeneous catalysis - development and characterization of nanoscale supported metal and oxide catalysts for reactions important for environmental protection and catalysts for hydrogen fuel cells.

The candidate Ivan Bogoev Ivanov submitted 17 publications in the present competition, 5 of them included in the indicative index „Habilitation thesis“ (4 articles in Q1 journals and one article in Q2 journal). The other 12 articles are in journals such as Catalysis Science and Technology, ChemCatChem, Applied Catalysis A: General - all of which are in the group of the first quartile - Q1, which shows a high scientific level. These works have found a wide

presentation in the scientific literature - they have 242 citations in reputable international publications mainly by foreign authors. Nine of the works, which he submitted in this competition have been cited more than nine times, which shows, once again, the high quality of the works and the relevance of the completed tasks. The papers submitted are original and relevant to the subject of the announced competition.

According to the Rules for the Implementation of the Law for the Development of the Academic Staff in the Republic of Bulgaria, they are divided into two groups of indicators - group "B" - habilitation work (indicator 4) and group „Г“ - Scientific publications, which are not included in the habilitation work (indicator 7). The contributions are mainly in the development and research of nano-sized catalysts for the low-temperature conversion of carbon monoxide with water vapor in order to obtain pure hydrogen, using gold-containing catalysts on cerium-oxide supports or copper-manganese catalysts.

A list of participation in 23 international and national conferences and congresses in the field of catalysis, hydrogen production, environmental protection and nanomaterials is presented. Assist. Prof. Dr. Ivan Ivanov has participated in 8 research projects - 4 with national and 4 with international funding.

Evidences have been presented to cover the conditions of Art. 24, Para. 1, items 1 and 2 - diploma for educational and scientific PhD degree and a certificate from the Institute for occupation of the position of "assistant professor" for more than 2 years. The careful examination of the scientific publications submitted for participation of present competition convinced me that item 5 of the same legal norm (Art. 24, Para. 1) was fulfilled - lack of plagiarism in the applicant's scientific works.

I have remarks on the design of the competition materials. Some journal quartiles are inaccurate – Catalysis Today, Catalysis Letters. The contributions were translated from English into Bulgarian language, most likely using Google translator. These remarks do not detract from the applicant's contributions.

I am convinced that Assistant Professor Ivan Bogoev Ivanov covers and exceeds the requirements of Art. 24, para 1, items 3 and 4 of the Law for the Development of the Academic Staff in the Republic of Bulgaria and Art. 27, para 2 of the “Regulations for the terms and conditions for the acquisition of scientific degrees and for occupation of academic positions in IC - BAS”. Based on the above, I propose Assistant Professor Ivan Bogoev Ivanov to be elected as Associate Professor at the Institute of Catalysis, BAS.

November 7th, 2023

Sofia

Подписът е заличен в
Съответствие със ЗЗЛД

Prof. Иван Кайвачев