OPINION

by Prof. Dr. Nikolay Ivanov Velinov

Institute of Catalysis – Bulgarian Academy of Sciences

regarding the competition for the academic position of Associate Professor in professional field 4.2. Chemical Sciences, scientific speciality "Solid State Chemistry", for the needs of the Laboratory "Design and Characterization of Catalytic Materials", in the thematic area "Surface Analysis", announced in State Gazette No. 58 of 26 June 2026.

This opinion has been prepared pursuant to Order No. RD-09-42/28 August 2026 of the Director of the Institute of Catalysis – BAS.

The sole candidate in the competition is Chief Assistant Professor Dr. Evgeni Petrov Popov, a member of the Laboratory "Design and Characterization of Catalytic Materials" at the Institute of Catalysis – BAS, for whose needs the competition has been announced. The candidate has submitted all the required documents in accordance with the Rules on the Conditions and Procedure for the Acquisition of Scientific Degrees and the Occupation of Academic Positions at the Institute of Catalysis – BAS.

Chief Assistant Professor Dr. Evgeni Popov graduated from the Faculty of Physics of Sofia University "St. Kliment Ohridski" in 2006. In 2013, he defended his dissertation entitled "Modelling Positron Interactions in Condensed Matter Used in ITER" at the Institute for Nuclear Research and Nuclear Energy (INRNE–BAS) and obtained the educational and scientific degree of Doctor in the scientific speciality "Nuclear Physics". He has worked as a physicist at INRNE–BAS and the Institute of Solid State Physics (ISSP–BAS), as an assistant and chief assistant professor at INRNE–BAS, and as a senior researcher at the Joint Institute for Nuclear Research in Dubna, Russia. Since July 2025, he has held the academic position of Chief Assistant Professor at the Institute of Catalysis – BAS.

Chief Assistant Professor Popov has co-authored 59 publications that have received considerable recognition in the specialist scientific literature, with a total of 357 citations. The candidate's Hirsch index (h-index), calculated on the basis of publications indexed in the Scopus database, is 11. For the present competition, he has submitted 19 publications, 18 of which appeared in journals with an impact factor (IF) or a Scopus rank (SJR). The distribution of publications by quartile is as follows: 16 in Q1, one in Q2, one in Q4, and one publication in a journal without an impact factor. The articles submitted for this competition do not overlap with the publications submitted for the award of the educational and scientific degree of Doctor.

The candidate has presented eight publications as a habilitation thesis entitled "Analysis of the Properties of Candidate Materials Intended for Operation under Dynamic Radiation and Corrosion Conditions". The publications submitted outside the habilitation thesis (indicator group G) also address this topic. The main scientific contributions of the works submitted for the competition consist in the development and application of an integrated approach to the investigation, characterization, and engineering control of structural defects and radiation-induced changes in promising radiation- and corrosion-resistant materials. By combining modern spectroscopic, diffraction, and other experimental methods with numerical simulations, the

vacancy structure and nature of defects, as well as the mechanisms of their formation, transformation, localization, and recombination, have been determined. The relationship between defect structure and the functional, chemical, catalytic, radiation, corrosion, and mechanical properties of the materials has been clarified. The results provide a methodological basis for the targeted selection and optimization of composition and structure, as well as for controlling the functional characteristics of materials intended for use in nuclear, thermonuclear, aerospace, and other technological environments.

The documentation submitted on compliance with the minimum requirements under Article 4 of the Rules on the Conditions and Procedure for the Acquisition of Scientific Degrees and the Occupation of Academic Positions at the Institute of Catalysis – BAS shows that Chief Assistant Professor Popov exceeds the required number of points for the academic position of Associate Professor in every indicator.

Conclusion: The candidate, Chief Assistant Professor Dr. Evgeni Petrov Popov, meets the requirements for the academic position of Associate Professor under the Act on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its Implementation, and the Rules on the Conditions and Procedure for the Acquisition of Scientific Degrees and the Occupation of Academic Positions at the Institute of Catalysis – BAS. I give the candidate a positive evaluation and confidently support the candidacy of Chief Assistant Professor Dr. Evgeni Petrov Popov for the academic position of Associate Professor in professional field 4.2. Chemical Sciences, scientific speciality “Solid State Chemistry”, at the Institute of Catalysis – BAS.

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Sofia (Prof. Dr. Nikolay Velinov)