OPINION

from Prof. Dr. Nikolay Georgiev Vasilev, IOHCF – BAS

on the materials submitted for participation in the competition for the academic position of **associate professor** in the professional field 4.2 Chemical Sciences: scientific specialty 'Organic Chemistry' for the needs of the 'Structural Organic Analysis' laboratory at the Institute of Organic Chemistry with a Center for Phytochemistry – BAS, announced in the State Gazette, issue 40 of May 16, 2025, with the sole candidate: **Dr. Simeon Stoyanov Stoyanov, chief assistant at the SOA laboratory at IOOCF-BAS.**

1. General presentation of the procedure and the applicant

Assistant Professor Dr. Simeon Stoyanov Stoyanov is currently working in the "Structural Organic Analysis" laboratory at the Institute of Organic Chemistry with the Center for Phytochemistry - BAS. He graduated with a degree in chemistry from Sofia University "St. Kliment Ohridski" in 2001, obtaining a master's degree in organic and analytical chemistry with a thesis on the topic: "Investigation of the conformation of para-substituted acetanilides through IR spectroscopy and quantum chemical calculations." From January 1, 2005, to December 31, 2007, he was a regular doctoral student at the Institute of Organic Chemistry with the Center for Phytochemistry, BAS, and in 2010 he defended his doctoral thesis on the topic "IR spectral and structural changes caused by the conversion of nitriles into anions and radicals." In 2004, he joined as a specialist chemist at the Institute of Organic Chemistry with the Center for Phytochemistry, BAS, where he has continued his entire career until becoming an assistant professor in 2011, a position he still holds.

2. General characteristics of the applicant's activities

Assoc. Prof. Dr. Simeon Stoyanov Stoyanov participated in the competition with 26 scientific works, all of which are publications in scientific journals (6 publications are in Q1 ranked journals, 8 publications are in Q2 ranked journals, 3 publications are in Q3 ranked journals, and 7 publications are in Q4 ranked journals, with 2 publications in non-refereed print

editions). All were published after obtaining the doctoral degree in 2010. According to the attached report, the applicant meets criterion A, scoring 166 points in group indicator B, exceeding the minimum of 100 points, scoring 273 points in group indicator C, exceeding the minimum of 220 points, and scoring 238 points in group indicator D, significantly above the minimum of 70 points. The total number of citations for the applicant is 119. The Scopus database calculates an h-index of 5 for the articles submitted for the competition by Assoc. Prof. Dr. Simeon Stoyanov Stoyanov.

The candidate has presented an extended habilitation report summarizing the results of 14 articles (9 articles in group indicators B and 5 articles in group indicators G). These scientific works are in the field of organic chemistry, addressing the synthesis of anionic derivatives of organic compounds that represent drugs, strong toxins, or new compounds with potential biological activity. The interpretation of the vibrational spectra of various organic molecules, their anions, and radicals has been discussed in detail, as well as the methods of predicting them through density functional theory.

The candidate's scientific papers have been published in reputable international journals with a high impact factor: 1 article in *Arab. J. Chem.* (IF=5.2 for 2024), 2 articles in *J. Mol. Str.* (IF=4.7 for 2024), 2 articles in *Spectroc. Acta Pt. A-Molec. Biomolec. Spectr.* (IF=4.6 for 2024), 1 article in *Molecules* (IF=4.6 for 2024), 1 article in *J. Electrochem. Soc.* (IF=3.3 for 2024), 1 article in *Vib. Spectrosc.* (IF=3.1 for 2024), 1 article in *J. Phys. Chem. A* (IF=2.8 for 2024), 1 article in *Comput. Theor. Chem.* (IF=2.2 for 2024), 1 article in *Minerals* (IF=2.2 for 2024), etc. The high reputation of the journals in which the candidate's scientific work is published is also evidenced by the Q-factors of these journals: 6 publications are in Q1 journals, 8 publications are in Q2 journals, 3 publications are in Q3 journals, and 7 publications are in Q4 journals.

The scientific papers of Assistant Professor Dr. Simeon Stoyanov Stoyanov are in the field of IR spectroscopy and quantum chemical prediction of IR frequencies of various organic compounds, anions, and radicals. They are at a very high scientific level, correspond to the topic of the competition, and are in the field of organic chemistry. It is impressive how well he knows the studied problems and the scientific literature dedicated to them, the precise execution of IR and in silico experiments, and the adequate analysis of the obtained results. Most of the candidate's scientific works are in author teams where his participation is evident. I have no doubts about the creative contribution of the candidate in each of them. In one publication in J. Phys. Chem. A, he is the sole author, in 8 publications he is the leading author, and in 7 he is the corresponding author.

3. Project activities and participation in conferences

Assistant Professor Dr. Simeon Stoyanov Stoyanov is a sought-after partner in the implementation of several national projects. He has worked on the execution of 14 national scientific projects and has presented the results of his scientific research at 32 scientific forums. The candidate has also actively participated in the training of students and young researchers – he supervised one doctoral student and interns at the international summer school in 2013.

4. Personal impressions

I personally know Assistant Professor Dr. Simeon Stoyanov Stoyanov. He is highly valued by his colleagues for his diligence, collegiality, and responsiveness, as evidenced by his scientific publications in various teams, as well as the projects he has participated in. I have no critical comments on the materials presented to me for review. Some minor technical errors can be noted, such as accidentally deleted letters.

CONCLUSION

Assoc. Prof. Dr. Simeon Stoyanov Stoyanov fully meets the requirements set out in the Law on the Development of the Academic Staff in the Republic of Bulgaria and the regulations adopted by the Council of Ministers and the Bulgarian Academy of Sciences for its application, as well as the requirements of the Institute of Organic Chemistry with Center for Phytochemistry at the Bulgarian Academy of Sciences for holding the academic position of 'Associate Professor'. The presented scientific output for participation in the competition is sufficient in volume, published in reputable scientific journals, and has received wide recognition in the literature. Based on the above, I confidently give my positive assessment and propose that Assoc. Prof. Dr. Simeon Stoyanov Stoyanov be selected for the academic position of 'Associate Professor' in the professional field 4.2. Chemical sciences (Organic chemistry).

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Prof. Dr. Nikolay Vassilev