

Statement

By

Assoc. Prof. PhD Lyudmil Georgiev Lyutov, Faculty of Chemistry and Pharmacy (FCP), Sofia University (SU) "St. Kl. Ohridski";

Currently retired, registered in NACID (National Centre for Information and Documentation)

About: open competitive selection of Assoc. Prof. PhD in professional field 4.2. Chemical sciences (Solid state chemistry), announced by State Newspaper #24/17.March.2023; SU Rector's Order ПД-38-132/24.March.2023 and decision of Council of Faculty of Chemistry and Pharmacy, Protocol # 17/21.March.2023.

Participant: There is one participant in the competition, Academic Assistant PhD Lyuben Dimitrov Mihailov, assistant in department „AIC (Applied and Inorganic Chemistry)“, FCP, SU "St. Kl. Ohridski".

1. Biographical data and documents.

1.1. Biographical data:

Date and place of birth: 1.May.1981, town of Goce Delchev.

Secondary Education:

1999 – Electro-technical High-School "Ivan Gulev", town Goce Delchev with main major: Electronics

Higher Education:

2006 – Mining Engineer, Faculty of Mining Technologies of University of Mining and Geology with thesis "Copper deprivation of copper slags by flotation" and

2009 – Master's Degree in Chemistry, FCP, SU "St. Kl. Ohridski" – Sofia, av. James Bouchier 1, Professional specialization – Plasma processing of dielectric materials with low value of the dielectric constant: Impact of the environment upon them, IMEC, Belgium.

2013 – PhD (4.2.) Chemical Sciences, Solid State Chemistry, FCP, SU "St. Kl. Ohridski" – Sofia, av. James Bouchier 1. Thesis: "Electro-catalytic activity of amorphous and nano-crystalline alloys for yielding of hydrogen".

Positions held:

2005 - Shift Supervisor in "Koprivlen Marble Ltd.", Village Koprivlen, with activity mining and processing of dimension stone, production management and quality control.

2007 – Electro technician in „EMBEKO АД“, Sofia, av. Botevgradsko Chausse #268, equipment for automotive repair workshops with activity – transport, assembly, disassembly and maintenance of hardware.

2013 – Academic Assistant in FCP, SU "St. Kl. Ohridski" – Sofia, av. James Bouchier 1.

Main fields of research, scientific and teaching activities: Transmission Electron Microscopy (TEM), Scanning and Transmission Electron Microscopy (STEM), Energy-Dispersion Spectroscopy (EDS), electro-chemistry, lectures and seminar exercises in "Applied electro-

chemistry”, lectures and seminar exercises in “Processes and hardware” and “Inorganic chemical technologies”.

1.2. Documentation:

Documentation for participation in the competition complies with the requirements of Regulations of SU “St. Kl. Ohridski” and the Law on Academic Staff Development of Republic of Bulgaria. The documentation is prepared and presented precisely. PhD Lyuben Dimitrov Mihaylov has diligently fulfilled data in SU “St. Kl. Ohridski” electronic system THE AUTHORS. From the presented report-declaration can be seen that scientific achievements and publication activity of PhD Lyuben Dimitrov Mihaylov significantly exceed the obligatory minimum state requirements and inter-university requirements for participation in the competition for academic position “Associate Professor” in field 4.2. Chemical Sciences (Solid Body Chemistry).

2. Scientific, teaching and project activity:

2.1. Scientific activity: For the purposes of the competition, the candidate has presented 17 published articles out of a total of 25. Thirteen of them fall within levels of Q1 (*the publication #9 does not have its quartile mentioned, which is probably a technical detail*) and 3 publications in Q2. The field of conducted researches is in Material Science, while the aim is mostly upon composite electrode materials – morphology, structure and behavior. The methods of investigation are focused upon TEM (transmission electron microscopy), HRTEM (high-resolution transmission electron microscopy), SAED (selected area electron diffraction), STEM (scanning and transmission electron microscopy), SEM (scanning electron microscopy), EDS (energy-dispersive spectroscopy), electron diffraction. Another related field is making of alloys and electro-chemical selective dissolution of the latter and their behavior as electrodes by potential-dynamic and polarization experiments.

The candidate has a total of 396 citations by Scopus and h-index 12. The high rate of citation and h-index demonstrate the high interest of the scientific community towards the subjects and researches conducted by the candidate.

2.2. Teaching activity:

Between 2017 and 2023 the candidate has taught lectures and practical exercises in Bachelor’s and Master’s programs in Applied electrochemistry, TEM, Processes and Hardware and Inorganic Chemical Technologies. He has been scientific consultant in two Bachelor’s degree theses between 2013 and 2017.

2.3. Project activities:

Participation in teams of 10 international projects, along with other students and PhD candidates.

3. Overview:

Reviewing the publications in the light of methods and fields of investigations, the contribution of the candidate is obvious and without doubt.

Regarding the scientific parameters, the national requirements are fulfilled as follows:

Parameters Group A: 50 out of 50
Parameters Group Б: 110 out of 100
Parameters Group Г: 285 out of 220
Parameters Group Д: 790 out of 70
Parameters Group Ж: 258 out of 70

It is impressive that the parameters in groups Д and Ж of the candidate, exceed few-fold the minimum requirements.

The professional experience and work in different teams enrich the candidate's knowledge and skills, which will be valuable for him in the position of "Associate Professor".

As a side note we can point out his interests in photography which aids the professional work in sample imaging. A professional recognition is his admission as a member of Bulgarian Crystallography Society on 27.April.2022.

4. Conclusion:

On the grounds of my awareness of the works presented to me and their results, which significantly exceed the requirements of Regulations and conditions for acquirement of the academic position, for which PhD Lyuben Dimitrov Mihaylov is applying in FCP of SU "St. Kl. Ohridski", I recommend that PhD Lyuben Dimitrov Mihaylov should take the academic position "Associate Professor" in professional field 4.2. Chemical Sciences (Solid State Chemistry).

Sofia, 29.June.2023.