

OPINION

on the materials submitted for participation in a competition for "**Professor**" in the field of higher education 6. Agricultural Sciences and Veterinary Medicine, Professional field 6.5. Forestry, scientific specialty "Technology, mechanization and automation of the woodworking and furniture industry" in the discipline "Technology of Materials from Wood Fibers"

In the competition for a professor, published in the State Gazette issue 26/03.21.2023 and on the site of the University of Forestry with the code WWI-P-0223-104 for the needs of the Department of "Mechanical Wood Technology" at the Faculty of Forest Industry, as a candidate participate Assoc. Prof. Viktor Petrov Savov, Ph.D., Faculty of Forest Industry, Department of Wood Mechanical Technology.

<u>Prepared the opinion:</u> Pavlin Bisserov Vitchev, Ph.D., Associate Professor in a Professional Field 6.5. Forestry, from the University of Forestry.

1. Brief biographical data for the candidate

Assoc. Prof. Viktror Savov, PhD was born in Sofia in 1980. In 2005 he received a "Master" degree in speciality "Woodworking and furniture production" from the University of Forestry — Sofia. In the period of 2005-2007, he acquired the professional qualification "Teacher of general technical and special subjects". In 2008 he joined the Department of Mechanical Wood Technology as an assistant professor and in 2011 became chief assistant professor at the same department. In 2010, Assoc. Prof. Savov successfully defended his Ph.D. thesis on the topic "Study of the effect of pre-heating regimes on the properties of fibreboards panels" and acquired the educational and scientific degree "Doctor". In 2015, after an open competition, the candidate acquired the academic position "associate professor". During his entire professional experience, Assoc. Prof. Savov worked and developed his scientific activity in the field of the current competition for the professorship. He taught classes with students from the specialty "Wood and Furniture Technology", degrees "Bachelor" and "Master" in the disciplines "Technology of Materials from Wood Fibers", "Technology of Particleboards", and "Technological Engineering of Woodworking Enterprises".

Assoc. Prof. Viktor Petrov Savov, PhD is registered as an associate professor in the list of qualified persons in PN 6.5 - Forestry in the Register of Academic Staff of the National Academy of Sciences.

He speaks English and Russian and has good digital, communication, and presentation skills.

2. Correspondence of the submitted documents and materials of the applicant according to the Rules of the Development of academic staff at the University of Forestry.

The documents and materials submitted by the candidate Assoc. Prof. Viktor Petrov Savov for participation in the announced competition for obtaining the academic position of "professor" fully meet the requirements of Art. 65, para. 1 of the Regulations for the

Development of Academic Staff in a University of Forestry, as well as Art. 29 of the Law on the Development of the Academic Staff in the Republic of Bulgaria.

3. Assessment of the candidate's educational and pedagogical activities (work with students and PhD students)

From 2008 till now, Assoc. Prof. Viktor Savov is working as a lecturer at the University of Forestry in the Department of "Mechanical Wood Technology" having successively held the following positions: assistant (2008÷2011); chief assistant (2011÷2015) and associate professor (2015 to present). He gives lectures on the disciplines "Technology of Materials from Wood Fibers", "Technology of Particleboards", "Technological Engineering of Woodworking Enterprises", and "Production of Wood-Based Panels".

The candidate is an author of a textbook and a handbook on "Technology of Wood Fiber Materials" (ISBN 978-619-7554-86-1 and ISBN 978-619-7554-05-2). He is also an author of three up-dated curriculums in the disciplines "Technology of Materials from Wood Fibers", "Technology of Particleboards", and "Technological Engineering of Woodworking Enterprises".

Under the supervision of Assoc. Prof. Savov, more than 40 graduated students successfully defended their thesis during the period from 2011 to 2022. Currently, he is the scientific supervisor of a full-time PhD student.

Based on the above, I strongly believe that the pedagogical and teaching activities of Assoc prof. Savov are at a very high level and fully correspond to the academic position of "professor". Assoc. Prof. Savov is a highly respected lecturer by the students and the academic community alike, devoted to his work with students. This is evident from the large number of successfully defended diploma theses developed under his supervision. Assoc prof. Savov is an expert in his field, well- recognized both by his colleagues at the University of Forestry and by the international academic community.

4. Assessment of candidate's scientific, scientific-applied and publishing activities

General description of the presented materials

Candidate Assoc. Prof. Viktor Petrov Savov participated in the competition with 51 publications, distributed as follows:

- Textbooks 1 number;
- Learning materials 1 number;
- Publications 49 numbers.
- Projects 8 numbers.

Ten publications (No. 25÷No. 34), referenced and indexed in a world-renowned database of scientific information, are presented as equivalent to a monograph, according to criterion B4 of the National Minimum Requirements (NMI) for acquiring the academic position "professor".

All publications have been published in prestigious international scientific journals and collective scientific volumes with peer review and editing.

The total score of the candidate is 4985 points, which exceeds the required score of 550 points for the academic position "professor", according to the presented report under Art. 2a, para. 2 of the National Minimum Requirements (NMI)

4.1 Participation in scientific, scientific-applied and educational projects

Assoc. prof. Viktor Savov actively participated in 8 scientific, scientific-applied and educational projects distributed as follows:

- scientific projects financed by the University of Forestry -4 numbers, one of which he is the head by him;
 - national scientific projects 1 number;

4.2 Characterization of published scientific results

The publications presented by Assoc. Prof. Viktor Savov for participation in the current competition for the academic position of "professor" can be classified as follows:

By type:

- Textbooks and handbooks 2 numbers;
- Publications in scientific journals 42 numbers;
- Publications in proceedings of scientific forums 6 numbers;
- Chapter of a collective monograph -1 number.

By significance:

- Articles in journals with Impact Factor (IF) 24 numbers;
- Articles in journals referenced and indexed in Web of Science and SCOPUS-10 numbers;
- Articles in journals not referenced and indexed in Web of Science and SCOPUS Web of Science и SCOPUS 8 numbers;
 - Papers in proceedings of scientific forums -6 numbers.

Publishing language:

- In Bulgarian 2 numbers;
- In a foreign language 49 numbers.

Number of co-authors:

- Stand alone 4 numbers;
- With one co-author 9 number.;
- With two co-authors -12 numbers;
- With three or more co-authors 26 numbers.

From the presented publications and scientific achievements of the candidate Assoc. Prof. Savov, I accept for evaluation all publications printed in scientific journals, collective scientific works and collections of scientific forums, since I do not participate in any of them as a co-author.

For collective publications, there are no protocols presented for the individual participation in the development of each of the authors, so I assume that it is equal.

4.3 Reflection of Candidate's Scientific Publications in Literature (known citations)

Associate Professor Viktor Savov presented a total of 301 known citations.

By type of citations:

- In scientific publications with impact factor or impact rank 265 numbers;
- In specialized scientific non-refereed journals 12 numbers;
- In monographs published abroad 24 numbers.

4.4 Contributions to the candidate's work (scientific, scientific-applied, applied)

The scientific works of the candidate, Assoc. Prof. Victor Savov contributed in solving theoretical and practical problems related to the technologies for the production of fiberboard panels and researching their exploitation properties, His contributions and can be summarized as follows:

Scientific contributions:

- 1.1. Modified hot-pressing regimes have been created for the fabrication of fiberboard panels with technical lignin as binders;
- 1.2. Modified adhesive systems have been created for the fabrication of fiberboard panels with the participation of synthetic binders and technical lignin;
 - 1.3. The action of lignosulfonates as formaldehyde scavengers have been proven;
- 1.4. The positive effect of additional heat treatment on the properties of fiberboard panels fabricated with lignosulfonates as a binder has been proven.

2. Scientific-applied contributions:

- 2.1. Values of main factors are defined when using modified hot-pressing regimes to fabricate fiberboard panels with technical lignin as a binder;
- 2.2. The optimal ratios of the adhesive systems components for producing fiberboard panels with synthetic binders and technical lignin have been defined;
- 2.3. Fiberboard panels were developed with the participation of recycled (waste) raw materials, and the effect of main factors in their production was experimentally established;
- 2.4. The effect of the main factors in producing fiberboard panels with the participation of non-wood lignocellulosic raw materials has been established.

3. Applied-practical contributions:

- 3.1. The effect of some factors on the properties of fiberboard panels, including the hot-pressing temperature and press factor, on the properties of light Medium-Density Fiberboards (MDF) fabricated from hardwood has been established; The optimal contents of urea-formaldehyde resin and phenol-formaldehyde resin for the fabrication of High-Density Fiberboard (HDF) with increased requirements for their exploitation properties have been established;
- 3.2. A systematization and analysis of the applicability of nanomaterials in the production of wood-based composite panels has been carried out;

3.3. Issued, approved and implemented in the learning process are a textbook and a handbook for the discipline "Technology of Materials from Wood Fibres" for the students of the specialty "Wood and furniture technology".

5. Assessment of the applicant's personal candidate

It is worth noting the high number of scientific papers, published in internationally recognized and peer reviewed scientific journals with impact factor and impact rank, as well as the high number of citations in prestigious journals that can be regarded as a recognition of the scientific contribution of the candidate Assoc. prof. Viktor Savov.

I consider that the scientific achievements of the candidate Assoc. prof. Savov, as reflected in the submitted materials for participation in the competition for the academic position "professor" are the result of his personal work or with his active participation and/or under his leadership.

6. Critical remarks

The materials submitted by Assoc. Prof. Viktor Petrov Savov for participation in the competition for the academic position "professor" are well classified and structured, according to the requirements. No errors and inaccuracies in terms of methodologies and analysis of results were found. All scientific works of the candidate are correctly structured in terms of theoretical introduction, methodology, interpretation and analysis of the obtained results and with correct indication of the literature used.

I am fully convinced that the candidate has the necessary potential and abilities to prepare and present plenary reports during international scientific forums, for there is currently no information about. I recommend that he continues to share the experience gained in his work with students, PhD students and the academic community both in Bulgaria and abroad.

7. Personal impressions

I have known Assoc. Prof. Viktor Savov since my student years. I had the pleasure of being his fellow student. Even then, Prof. Savov was stood out with erudition and intellect, which, as evidenced by his high scientific achievements. he managed to develop over the years to an even greater extent. Now, in my capacity as a lecturer and a colleague, I am confident to state that Assoc. Prof. Victor Savov is a well-established and recognized professional in the field of technologies for the production of fiberboards panels, a lecturer, highly respected by students, by the academic community in Bulgaria and the international scientific circles in the field of wood processing technologies.

8. Conclusion

In connection with the above, I propose that Assoc. Prof. Viktor Petrov Savov be elected as a "Professor "in the discipline" Technology of Materials from Wood Fibres" in the Professional field 6.5. Forestry, scientific specialty, scientific specialty "Technology, mechanization and automation of the woodworking and furniture industry"

Prepared the opinion:

/Assoc. Prof. Pavlin Vitchev/

Opinion delivered to: