Appendix 12d

REPORT

to occupy the academic position:

''Professor''	
''Associate Professor''	X
	one of the academic positions indicated shall be marked with the sign "X"

Candidates to occupy the position:

1	assist.prof.	Dr.	Dimitrina	Atanasova	Todorova	UCTM
№	academic position	scientific degree	name	middle name	last name	workplace

Scientific area:

5	Technical science
code	Name

Professional area:

5.10	Chemical technologies
code	Name

Scientific specialty:

Technology, mechanization and automation of the pulp and paper industry

The competition has been announced:

67	13.08.2021	Pulp, Paper and Printing art	FHT
in SG issue	date	for the needs of the Department	Faculty

The report was written by:

Professor	Doctor	Evgeni	Borislavov	Simeonov	UCTM
academic position	scientific degree	name	middle name	last name	workplace

1. Report for the candidate:

assist.prof.	Dr.	Dimitrina	Atanasova	Todorova
academic position	scientific degree	name	middle name	last name

1.1. Meeting the minimum requirements under the Regulations:

A) The candidate meets the minimum requirements	20 points	X
B) The candidate doesn't meet the minimum requirements	0 points	
		one of the answers given is marked with the sign "X"

It must be filled in if answer B is marked. The publication activity of the candidate is analyzed. The response of the results achieved (quoted) is analyzed.
The candidate assist. prof. Dimitrina Todorova has presented all the materials in the necessary kind and volume in compliance with the conditions and order defined by the Law for development of the academic staff and the Regulations for its application. 50 publications have been presented. For indicator B4 there are 320 points whereas the required minimum is 100 points from at least 10 publications referenced and indexed in a world data base / Scopus Web of Science etc./ Scientific publications (articles and reports), published in journals, which are referenced and indexed in world renowned date base with scientific information – 303 points with minimum required 200 points. 29 cites and. 192 points are presented from citation, which is well above the required minimum of 50 points. Participation in writing a textbook has been presented 7 points. Besides 153 points in addition, according to indicators from 16-27 Annex be and Annex bj.

1.2. Relevance of scientific and / or applied research:

A) The research is relevant. Part of the research is pioneering (no results are known on the topic by other authors)	8 points	
B) Research is relevant. Results from other authors are known for each of the topics and / or applications studied.	6 points	X
C) Most of the research is relevant, but also some results are presented that have no scientific and / or applied value	4 points	
D) The smaller part of the research is relevant	2 points	
E) Research is not relevant	0 points	
		one of the answers given

		is marked with the sign "X"

The evaluation of the relevance of the research must be substantiated.
The scientific publications, the main results reflecting the significance and actuality of the investigations, presented for acquiring the academic position "associate Prof." ca be grouped in in the following thematic directions: Investigation on the interdependences between the type of fibrous raw materials, processing methods and the properties of the papers obtained from them; investigation on the kinetic regularities between the type of the source fibrous materials and the aging of the paper; Investigation and optimization of retention and drainage processes in paper production. Improving the properties of paper suspensions and the clarity of the white waters; optimization of the processes of recycling of fibrous raw materials; investigation and optimization of the processes of dyeing, sizing; addition of biopolymers, plant extracts and silver nanoparticles; optimization of the processes when obtaining and processing corrugated cardboard. All scientific works are in the field of the scientific specialty of the competition. The actuality of the obtained results is without any doubt

1.3. Objectives of the research:

A) Realistic and of scientific and / or applied interest	8 points	X
B) Realistic, but not of scientific and / or applied interest	4 points	
C) Unattainable (unrealistic)	0 points	
		one of the answers given is marked with the sign "X"

Objectives must be specified. The type of the set objectives must be justified
The goals which have been set, refer to the present, having in mind the possibility for practical application of the obtained results and some of them are of a significant scientific interest. The more important ones are: - Investigation on the properties of the obtained papers depending on the type of the output fibrous raw materials and the processing methods. - Investigation on the possibilities for recycling and improving the sheet-forming-properties of the fibrous materials. - Studying the influence of additives in paper production on the paper properties. Optimizing the processes of dyeing, sizing and retention. - Investigation on optimizing the multifunctional properties of the different packaging materials. - Investigation on corrugated cardboard properties so that the processes for their obtaining and processing can be improved.

1.4. Candidate research contributions:

A) With lasting scientific and / or applied response, they form the basis for new research and applications	20 points	
B) They are of significant scientific and / or applied interest, complete and / or summarize previous research	16 points	x
C) They are of scientific and / or applied interest	12 points	
D) Lack of significant contributions	8 points	
E) Lack of contributions	0 points	
		one of the answers given is marked with the sign "X"

Contributions must be specified. The type of results achieved must be justified.
The candidate's contributions are of significant and applied interest for the industry and environmental protection. The more important are: - The influence of the constant magnetic field on the behavior of the paper suspension and the strength indicators of the obtained paper samples have been established, as improvement of the paper structure sheet has been proved. - The kinetic interdependencies between the type and the output fibrous materials and the aging of the paper have been defined. It has been proved that the process kinetics is best defined by an exponential kinetic equation. Different simulation methods have been used and the results are compared with those done in laboratory conditions. A very good coincidence between the two has been achieved. - Recycling of fibrous materials and improving their sheet-forming-properties by using enzyme products. New reactive dyes have been used and their effect on the paper suspension properties have been defined. - Investigation and optimization of sizing processes to improve the barrier properties of papers and the possibility for choosing the right combination between the different types of fibrous materials and the suitable sizing substance. - Optimization of retention and drainage processes for improving the properties of paper suspensions and the clarity of the white waters by using floculants and treatment in magnetic field. - Investigation and optimization of the properties of packaging materials with the addition of biopolymers - chitosan and rice starch, with the addition of plant extracts and silver nanoparticles. - Optimization of the processes for obtaining and processing three-layer and five-layer corrugated cardboards and defining their deformation indicators.

1.5. Participation of the candidate in the achievement of the presented results:

A) The candidate has at least an equal participation in the submitted papers	8 points	x
B) The candidate has at least an equal participation in most of the submitted papers	7 points	
C) The candidate has a secondary participation in most of the submitted papers	4 points	
D) The candidate participation is unnoticeable	0 points	
		one of the answers given is marked with the sign "X"

Critical notes must be provided if one of the items C or D is marked.

1.6 Pedagogical activity:

A) The candidate has effective and sufficient pedagogical activity at the university. The textbooks issued are modern and useful (they meet the requirements of the Regulations). The work with undergraduate and doctoral students is at a high professional level.	8 points	
B) The candidate has sufficient pedagogical activity at the university. The textbooks issued satisfy the requirements of the Regulations.	6 points	x
C) The pedagogical activity and / or textbooks issued are insufficient (do not meet the requirements of the Regulations)	0 points	
		one of the answers given is marked with the sign "X"

Critical notes must be provided if one of the items B or C is marked.

1.7. Critical notes:

A) Lack of critical notes	8 points	x

B) Critical notes of a technical nature	7 points	
C) Critical notes that would partially improve the results achieved in a small part of the research	5 points	
D) Critical notes that would partially improve the results achieved in most of the research	3 points	
E) Significant critical notes	0 points	
		one of the answers given is marked with the sign "X"

Critical notes must be provided if one of the answers C, D or E is marked.

1.8. Conclusion

A) The evaluation of the candidate's activity is **POSITIVE**	This evaluation is assigned to a total number of at least 50 points	x
B) The evaluation of the candidate's activity is **NEGATIVE**	This evaluation is assigned to a total number below 50 points	
		one of the answers given is marked with the sign "X"

To be filled in if requested by the member of the scientific jury
From the presented materials and results and according to my personal opinion Doctor Dimitrina Todorova meets all the quantity requirements, in accordance with the Regulations for acquiring scientific degrees and occupying academic positions at UCTM. All of these give me the grounds to evaluate positively the only candidate in the competition. I propose to the Faculty Committee of FHT of UCTM to choose Dr.eng. Dimitrina Todorova for an "associate professor" in the field of higher education Technical sciences, professional direction 5.10 Chemical technologies (Technology, mechanization and automation of the pulp and paper industry).

27.11.2021	The report was written by:	
date	**Prof. Dr. Eng. Evgeni Simeonov**	signature