

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	Ch.Asist.	PhD	Vania	Dimitrova	Lilova	UCTM
№	academic position	scientific degree	name	middle name	last name	workplace

Scientific area:

4	Natural sciences, mathematic and informatic
code	name

Professional area:

4.1.	Physical sciences
code	name

Scientific specialty:

Structure, mechanical and thermal properties of the condensed matter
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The competition has been announced:

108	22.12.2020	Physics	Chemical technologies
in SG issue	date	for the needs of the Department	Faculty

The report was written by:

Prof.	PhD	Tamara	Hristova	Petkova	IEES - BAS
academic position	scientific degree	name	middle name	last name	workplace

1. Report for the candidate:

Ch.assist.	PhD	Vania	Dimitrova	Lilova
academic	scientific	name	middle name	last name

position	degree			
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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.

According to the rules of UCTM, developed on the basis of ZRASRB, the candidate should have a minimum number of points on each of the indicators required to hold the academic position of "associate professor". Ch. Assist. Dr. Vanya Lilova has submitted materials that bring the following points:

The points under indicator 4 and indicator 7 (scientific publications in journals that are referenced and indexed in scientific databases Scopus and web of science), together with the points from indicator 11 (book chapters) are 205, which means that the candidate exceeds the required 200 points. The points in the indicator 12 (citations) that Dr. Lilova has collected exceed the required 50 points as well (53 points). Together with 50 points from indicator 1 - dissertation work, the candidate collects and exceeds 400 points, which she needs. With this the candidate has fully met the minimum requirements according to ZRASRB and the regulations to it.

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 interests of the candidate Ch. Assistant Professor Dr. V. Lilova are in the field

of materials science - synthesis and study of new oxide and chalcogenide materials. The topic is prospective as far as the oxide materials are promising for a number of applications. The same applies to the chalcogenide materials, which have been studied in the form of a thin layer for application as a medium for recording optical information. The results obtained in the research are promising and have a definite scientific and applied value, but they could not be called pioneering, as studies of such materials have been reported in the scientific literature for decades. This does not decrease the candidate's contribution, as in the materials science the search for new materials with modified properties depending on the applications has been and remains a matter of great importance.

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 main goal of the research is to obtain scientific data on new materials with improved properties and structure, which would find practical application in various fields. The candidate follows the classical scheme of research - synthesis, study of basic physical properties and analysis of results, a scheme that realistically allows to accumulate reliable information about the studied materials.

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 has been conducting research in the field of materials science since 2000. The enlargement of the type of research over the years shows the purposefulness of her research. The published scientific results are of scientific interest to the scientific community, which is confirmed by the citations found in the literature on the presented scientific papers.

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	
B) The candidate has at least an equal participation in most of the submitted papers	7 points	x
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"

The presented scientific articles and chapters from books are the joint team work. The conducted research is interdisciplinary and due to this it can be performed only by a team of specialists in various fields of materials science. Undoubtedly, the role of the candidate is noticeable - from the synthesis of materials to the study of their physical properties. This is the reason to classify the participation of the candidate as equivalent in most of the presented scientific papers.

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	x
B) The candidate has sufficient pedagogical activity at the university. The textbooks issued satisfy the requirements of the Regulations.	6 points	
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	73
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
The candidate for holding the position of AD associate professor, chief assistant Dr. Vanya Lilova presented materials that fully cover the requirements for holding this position. Considering her rich teaching experience in combination with her scientific interests, I can confidently say that V. Lilova is suitable for the position of associate professor for the needs of the Department of Physics at UCTM. Therefore, I am giving a positive assessment and I

propose to the FS to approve the candidacy of Chief Assistant. Dr. Vanya Lilova of "Associate Professor".

23.03.2021	The report was written by:	Prof.Tamara Petkova, PhD
date		signature