

**REPORT**

to occupy the academic position:

"Professor"	
"Associate Professor"	<b>X</b>
	one of the academic positions indicated shall be marked with the sign "X"

**Candidates to occupy the position:**

<b>1</b>	<b>Chief Assistant Professor</b>	<b>PhD</b>	<b>Ani</b>	<b>Angelova</b>	<b>Stoilova</b>	<b>UCTM</b>
<b>№</b>	academic position	scientific degree	name	middle name	last name	workplace

**Scientific area:**

<b>4</b>	<b>Natural Sciences</b>
code	name

**Professional area:**

<b>4.1</b>	<b>Physical sciences</b>
code	name

**Scientific specialty:**

<b>Electrical, magnetic and optical properties of condensed matter</b>
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**The competition has been announced:**

<b>14</b>	<b>18.02.2022</b>	<b>Physics</b>	<b>Chemical Technologies</b>
in SG issue	date	for the needs of the Department	Faculty

**The report was written by:**

<b>Professor</b>	<b>DSc</b>	<b>Kiril</b>	<b>Assenov</b>	<b>Krezhov</b>	<b>IE-BAS</b>
academic position	scientific degree	name	middle name	last name	workplace

**1. Report for the candidate:**

<b>Chief Assistant Professor</b>	<b>PhD</b>	<b>Ani</b>	<b>Angelova</b>	<b>Stoilova</b>
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	<b>X</b>
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 only candidate Chief Assistant Professor Dr. Ani Stoilova participated in the competition with 21 scientific papers not used in previous procedures, of which 13 publications in scientific journals with impact factor and 8 in refereed and indexed publications without impact factor. The candidate is the first author in 7 of these works. Data for 39 independent citations (according to Scopus) of 9 of the publications are given.

**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>X</b>
B) Research is relevant. Results from other authors are known for each of the topics and / or applications studied.	6 points	
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 candidate has worked on topical issues in the field of materials science in two main areas:

1) Application of technologies for obtaining new optical materials based on chalcogenide glasses and azobenzene-based polymers and composites based on these two types of materials, and their physico-chemical and structural characterization.

2) Development and application of methods for polarization study and visualization of pathomorphological changes in human tissues

### 1.3. Objectives of the research:

A) Realistic and of scientific and / or applied interest	8 points	<b>X</b>
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

Among the main objectives of the research is the synthesis of new materials (chalcogenide glasses, azo dyes in polymers) with optimized structural and optical properties for optoelectronics, as well as the development of polarization methods with potential for diagnosing specific diseases by visualizing problematic biological tissues in human organs.

### 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>X</b>
B) They are of significant scientific and / or applied interest, complete and / or summarize previous research	16 points	
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.
<p>I accept the submitted author's overview of the research contributions.</p> <p>In the outlined two main research areas, in my opinion, with the pronounced personal contribution of the candidate the following research contributions of scientific and applied character stand out:</p> <ul style="list-style-type: none"> <li>- A new composite material based on azo polymer and chalcogenide glasses has been developed for use as a medium for optical recording of information [Publications: 10_6d];</li> <li>- As a result of careful studies of the kinetics of birefringence in anisotropic media based on new azo dyes, multiple optical recording in thin-film composite materials has been realized. [Publications: 4_6a, 9_6a];</li> <li>- An innovative approach for image reconstruction with suppression of the contribution to the final image of photons scattered from the depth of the biological sample has been developed and successfully applied, contributing to higher contrast visualization of pathomorphological changes in histological preparations of human lungs and liver. [Publications: 10_6a].</li> </ul>

#### 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>X</b>
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.
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#### 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>X</b>
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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	
The candidate provides information for delivering lectures and supervising practical exercises in courses taught in French and German. He is the co-author of a textbook in German for students of UCTM in the specialty "Chemical Engineering with German language teaching".		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	<b>X</b>
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 <b>POSITIVE</b>	This evaluation is assigned to a total number of at least 50 points	X
B) The evaluation of the candidate's activity is <b>NEGATIVE</b>	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

Based on the documents and scientific papers submitted for the competition by the candidate and the analysis of their significance and the scientific and applied contributions contained in them, I strongly suggest to the Scientific Jury to recommend to the Faculty Council of the Faculty of Chemical Technology of UCTM to vote YES for Chief Assistant Professor Dr. Ani Angelova Stoilova for holding the academic position of "Associate Professor" in the professional field 4.1 "Physical Sciences", specialty "Electrical, magnetic and optical properties of condensed matter".

17.06.2022	Prof. DSc Kiril Assenov Krezhov	
date	The report was written by:	signature