

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.	Stela	Ivanova	Georgieva-Kiskinova	UCTM
№	academic position	scientific degree	name	middle name	last name	workplace
2						
№	academic position	scientific degree	name	middle name	last name	workplace
3						
№	academic position	scientific degree	name	middle name	last name	workplace

Scientific area:

4	Natural sciences, mathematics and informatics
code	name

Professional area:

4.2.	Chemical Sciences
code	name

Scientific specialty:

Analytical Chemistry

The competition has been announced:

101	27.12.2019	Analytical Chemistry	Chemical technology
in SG issue	date	for the needs of the Department	Faculty

The report was written by:

prof.	DSc	Ivo	Kocev	Grabchev	Sofia University "St. Kliment. Ohridski"
academic position	scientific degree	name	middle name	last name	workplace

1. Report for the candidate:

Assist. Prof.	Dr.	Stela	Ivanova	Georgieva-Kiskinova
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"
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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 submitted documents, with which Dr Stella Georgieva-Kiskinova participates in the competition for associate professor, satisfy completely the requirements of the Regulations of UCTM. (Annexes 2c and 2d).

She has been Assistant Professor at the CTMU since 01.01.2012. She has a dissertation thesis and has been awarded PhD degree (Group A, Indicator 1, 50 points in the scientific specialty 4.2. Chemical Sciences (Analytical Chemistry)). In group B, indicator 4, she has 104 points - Habilitation work - scientific publications, referenced and indexed in world-famous databases of scientific information (Web of Science and Scopus), and she presents 6 publications. In group D, Ind. 7 has 266 points from 16 publications, and under Ind. 10 has 15 points. (Published patent or utility model application). In total in group D (indicators from 5 to 10) the points are 281 in the required 200 points. The citations of the candidate's scientific papers with which she participates in the competition are 25 (50 points, group D, Ind. 11). According to the Regulations of UCTM for the occupation of the academic position of "Associate Professor", the candidate is required to submit at least one published university textbook. Dr. S. Georgieva presents a textbook, published by UCTM, Sofia, which has 7 authors and corresponds to group E, Ind. 20 or 2.9 points.

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 researches of Dr. S. Georgieva are focused on the application of spectrometric and electrochemical methods in characterizing equilibrium processes and of new organometallic complex compounds, as well as in the development of analytical methods for the determination of different components. Specific voltammetric techniques in various electrolytic media have been used to evaluate the electrochemical behaviour of compounds with potential optical and/or biological properties.

These studies fully correspond to the scientific speciality in which the competition for "Associate Professor" was announced. Their relevance is determined by the essential importance of the various analytical methods for characterizing compounds and objects in their further application, as well as the citations of the publications presented.

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 objectives of the research are related to the characterization of compounds of different types with variety in the used analytical methods.

They are in different directions and have scientific and applied value:

- analytical control and assessment of the oxygen content of superconducting materials as well as the content of major constituents in surface water;
- development of new analytical methods related to the spectrophotometric determination of Cu(II) in water in the presence of Fe(III) and an overview of current enzyme methods for the determination of lactate;
- synthesis and characterization of organic and organometallic complex compounds;
- improving the quality of students' education by developing a research project for the analysis of drinking water from different regions of Bulgaria;
- study of the properties of lipid membranes in media with different pH and ionic strength.

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 publications for participation in the competition have a fundamental and applied character. The main contributions can be grouped as follows:

- the possibility of applying spectrophotometric methods for rapid analysis of the oxygen content in superconducting ceramics has been identified;
- by proving the stability of the investigated ceramics in a highly alkaline environment, their application as additives to zinc electrodes has been proposed to improve the properties of alkaline battery systems;
- for the first time, a spectrophotometric destructive method for the determination of oxygen content in non-monophase superconducting materials has been applied and validated;
- the sources of anthropogenic pollution have been identified through the application of various analytical methods for the analysis of river water and recommendations for their future management have been made;
- a sensitive, selective, rapid spectrophotometric method for the determination of Cu (II) in water with inexpensive and non-toxic reagents has been developed;
- information on lactate determination methods is summarized;
- methods for the synthesis of metal ions complexes (Cu (II), Co (II), Zn (II) and Ni (II)) with aminohydantoin as ligands at different acidity of the medium have been developed and their electrochemical behavior and biological activity have been studied. For the first time, optimal conditions for the synthesis of biologically active Cu (II) complexes with 2-amino-5,5-phenylhydantoin with a stoichiometric composition metal ion:ligand = 1:2 have been established.
- the values of basic physicochemical parameters such as acid-basic constants and isoelectric points have been determined and the electrochemical behavior and mechanism of the redox process of a series of biologically active compounds have been investigated;
- a simplified algorithm for stability constants determination has been developed and applied by processing differential pulse polarography data.
- the stoichiometry and the values of conditional stability constants of the test compounds have been obtained by analysis of their overlapping spectral characteristics and have been confirmed with voltammetric analyzes.

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.

The analysis of the presented works of Dr. S. Georgieva-Kiskinova shows her leading role in their development and publication process. In 8 of these publications, she is the first and corresponding author.

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	
Assist. prof. S. Georgieva participates in the competition for associate professor with one textbook, in which she is a co-author. In the period 2016-2020 she has given lectures and exercises in the following disciplines: Analytical Chemistry; Analytical chemistry with instrumental methods in Bachelor's degree and Membrane processes for DPVA in Master's degree. She also teaches at the Dean's Office for Continuing and Distance Learning at UCTM, Sofia, where she participates in the training of students in the specialization "Analytics", where she conducts lectures, seminars, and laboratory exercises. Assist. Prof. S. Georgieva-Kiskinova has been the supervisor of three graduates. One of the diploma theses is for the acquisition of a Bachelor's degree and two are for graduates of the Dean's Office for Continuing and Distance Learning.		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

I strongly recommend to the Honorable Jury, Assistant Professor Dr. Eng. Stella Georgieva to be elected "Associate Professor" in the scientific specialty 4.2. Chemical Sciences (Analytical Chemistry), according to the competition for associate professor announced by UCTM in SG issue No. 101 from 27.12.2019.

2. Report for the candidate:

academic position	scientific degree	name	middle name	last name

The structure of the report under the previous point 1 shall be respected.

3. Report for the candidate:

academic position	scientific degree	name	middle name	last name

The structure of the report under the previous point 1 shall be respected.

Candidate ranking (in case of more than one candidate who has received a positive evaluation to occupy the academic position):

Based on the assigned points, the candidates who have received a **positive** evaluation are ranked as follows:

1	Assist. Prof.	Dr.	Stela	Ivanova	Georgieva-Kiskinova	74
place	academic position	scientific degree	name	middle name	last name	points
2						
place	academic position	scientific degree	name	middle name	last name	points
3						
place	academic position	scientific degree	name	middle name	last name	points

05/5/2020	The report was written by:	
date	Prof. DSc Ivo Grabchev	signature