

**REPORT**

to occupy the academic position:

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

**Candidates to occupy the position:**

1	Assoc. Prof.	Dr.	Stela	Ivanova	Georgieva-Kiskinova	UCTM
№	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
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**The competition has been announced:**

68	13.08.2024	Analytical Chemistry	Faculty of Chemical Technologies
in SG issue	date	for the needs of the Department	Faculty

**The report was written by:**

Prof.	Dr.	Denitsa	Yancheva	Pantaleeva	IOCCP-BAS
academic position	scientific degree	name	middle name	last name	workplace

**1. Report for the candidate:**

Assoc. 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"

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.

Assoc. Prof. Dr. Stella Georgieva-Kiskinova has submitted a total of 30 scientific publications and two electronic tutorials on Analytical Chemistry for participation in the current competition. The publications have been published in scientific journals, refereed in the world databases (Scopus and Web of Science), the majority of them (21 articles) are in scientific journals with quartiles Q1 and Q2 (as of the year of publication according to the SJR and JCR databases). Six of the submitted publications are grouped under Indicator 4 (as the equivalent of a habilitation thesis) and the remaining fifteen publications are grouped under Indicator 7 (scientific publications other than habilitation theses). One of the publications under Indicator 7 is currently a preprint. The research papers score 115 points under Indicator 4 and 439 points under Indicator 7, which meets and exceeds the minimum requirements (especially for Indicator 7, where the candidate's score is more than double to the minimum requirements).

For participation in the competition, the candidate Assoc. Prof. Dr. Stella Georgieva-Kiskinova has submitted 60 citations of her publications in scientific journals (corresponding to 120 points), refereed and indexed in world-known databases of scientific information (according to a reference conducted in the Scopus database).

### 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	X
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.
<p>The research activity of the candidate is focused on analytical characterization of biologically active compounds (new modified hemorphin and hydantoin analogues and their metal complexes) with a wide range of spectroscopic and electrochemical methods, on the one hand, and the study of sensing potential, development of analytical methods and analytical control (determination of metal ions and arsenic in samples with different matrix composition), on the other hand. The topicality of the research is supported by the fact that the scientific publications of Assoc. Prof. Dr. Georgieva-Kiskinova are mainly published in journals of the two highest categories (Q1 and Q2), as well as the significant number of citations of her scientific works reported in the last 5 years (2020-2024) - 98, after excluding the citations of all authors according to the Scopus database.</p>

### 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
<p>With the aim to elucidate the stability of biologically active molecules and their pharmacokinetic behavior in the body, basic mechanisms of action and detection of molecular/structural modifications (aggregation), an interdisciplinary approach has been applied within which electrochemical methods provide reliable and valuable information on the electrochemical properties of peptide derivatives.</p> <p>Research in the second direction is more applied in nature and relevant to the analytical practice. The candidate's research has led to the elucidation of the sensing activity of azo-azomethine derivatives towards the detection and determination of metal ions, complexation properties of 5,5'-diphenyl-3-((pyridin-2-ylmethylene)amino)imidazolidine-2,4-dione towards copper ions in surface and tap water samples, the applicability of two new voltammetric methods for the detection and determination of Cu(II) ions in real samples using organic ligands-aminohydantoin/azo-azomethine derivatives, and the</p>

development of four methods for the speciation analysis of arsenic in samples with different matrix compositions.

#### 1.4. Candidate research contributions:

A) With lasting scientific and / or applied response, they form the basis for new research and applications	20 points	X
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.

The research of the candidate in the first area of analytical characterization of biologically active compound is of scientific interest in relation to the development of new drug candidates with anticonvulsant, analgesic, antioxidant, etc. activities, and has led to a better understanding of the relationship between structural modifications and observed biological activity, which provides a basis for further search for new analogues with improved activity.

The research of the candidate in the area of study of sensing potential, development of analytical methods and analytical control has significant potential for application in analytical practice for the detection and determination of metal ions and arsenic in various matrices. The candidate's research in this area has led to the implementation of a developed model and a patent application.

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

In the vast majority (20 of the publications submitted for the competition), Assoc. Prof. Dr. Georgieva-Kiskinova is the first or second author or, respectively, the corresponding author. An important and significant part of the scientific results in the submitted publications were obtained through the methods that are part of the scientific competence of Assoc. Prof. Dr. Georgieva-Kiskinova and which she applies in her work.

### 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

<b>16.12.2024.</b>	The report was written by:	<b>Prof. Dr. Denitsa Pantaleeva</b>
date		signature