Appendix 12d

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.	PhD	Petar	Todorov	Todorov	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:

Organic Chemistry

The competition has been announced:

67	13.08.2021	Organic Chemistry	Faculty of Chemical Technology
in SG issue	date	for the needs of the Department	Faculty

The report was written by:

Assoc. Prof.	PhD	Daniela	Simeonova	Tsekova	UCTM
academic position	scientific degree	name	middle name	last name	workplace

1. Report for the candidate:

Assoc. Prof.	PhD	Petar	Todorov	Todorov
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. Petar Todorov is the only candidate in the announced competition. He presented all the required materials for this competition.The scientific papers included are 26 in nimber , 20 of which with impact factor (IF) and 6 - with an impact rank. All they are published in peer-reviewed journals reffered in Scopus and Web of Science databases. Papers have total IF of 52.879, and individual IF – 10.668. Over 240 citations have been marked. Participations in scientific forums are 41. In details, data presented by the applicant compared with the minimum scientometric indicators are: Indicators group **B: B/4** minimum requirements - 100 points. Completed - **202** points. Indicators group **G: G/7** has 259 points and indicator **G/8** - 15 points total **274** points, required minimum is 200 points. Indicators group **D: D/11** – includes 248 citations = **496** points, at 100 points required. Indicators group **E: E/13** - 50 points E/14 - 5 projects are presented, total number of points is 50. E/15 - 1 project = 20 points E/16 - 20 points E/18 - 24 points E/20 - 16.6 points. The total number of points is **180.66** with a minimum of 150 points. It is obvious that according these indicators, the applicant exceeds the minimum requirements.

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 publications of Assoc. Prof. Todorov are related to the synthesis, characterization and testing of new organic compounds or their metal complexes. I allow myself to summarize them in two main groups according to the areas of potential applicability: 1. Synthesis of biologically active compounds, mainly peptides (including both natural and non-natural amino acids) and hydantoin derivatives. Some of the newly synthesized compounds are considered as starting structures for the development of new potential anticonvulsant and antinociceptive agents - a modern area related to the development of medicine. 2. Synthesis of a series of new Schiff bases containing a hydantoin ring and study of their photophysical and electrochemical properties. Their research is related to the application of this type of compounds as photochromic switches.

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
As far the objectives have been achieved, they are realistic. The interest can be supposed by the citability of the publications.

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.
• Design and synthesis (mainly solid-phase) of new peptide analogues of bioactive hemorphin derivatives and determination of their biological (anticonvulsant) activity. - new analogues of VV-hemorphin-5, modified in positions 1 and 7 with non-proteinogenic and / or natural amino acids (A11), as well as an analogue containing an azobenzene residue with respect to its E → Z photophysical properties (A12). For the first time, an aminophosphone residue was introduced into peptide analogs of VV-hemorphin-5 (A16 and A23); - new analogues of VV-hemorphin-7, modified at positions 4 and 7 with unnatural amino acids (A19); - new analogues of hemorphin-4, modified with unnatural conformational inhibited amino acids, as well as containing azobenzene (A26). - A simple and fast electrochemical method has been developed for selective determination of copper in aqueous samples using peptide molecules - analogs of VV-hemorphin-5. - Some structure-activity dependences with respect to anticonvulsant effect in new derivatives have been derived (A22). • Synthesis and study the biological activity of new derivatives of opioid peptides, nociceptin and endomorphine analogues by sutstituting the natural AK in their structure with new modified elements, e.g. phosphonic, cyclic, etc. varieties of unnatural acids. Some of the resulting derivatives have promising biological activities (A1, A3, A5, A7). • Synthesis and characterization of new hydantoin derivatives in order to create new antitumor reagents - Metal complexes of 5,5'-disubstituted hydantoins (A4, A9, A10, A18 and A2); - cycloalkanespirohydantoins with 5-, 6-, 7- and 8-membered rings (A8); - a series of new Schiff bases containing a hydantoin ring, which exhibit intriguing photophysical and electrochemical properties (A13, A17, A21 and A24).

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	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	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
The scientometric indicators of the candidate - Dr P. Todorov's work exceed the minimum national requirements for the scientific and teaching activity. On this basis, I recommend the academic position "Professor" in the Department of Organic Chemistry at the Faculty of Chemical Technology of UCTM-Sofia to be awarded to Assoc. Prof. Dr. Petar Todorov Todorov.

26.11.2021	The report was written by: Assoc. Prof. Dr Daniela S. Tsekova	
date		signature