Appendix 12b

REPORT

of dissertation for the acquisition of:

educational and scientific degree " **doctor** "	X
scientific degree **"Doctor of Science"**	
	the true is indicated by the sign "X"

Author of the dissertation:

		Milazim		Tahirukaj	Kosovo Agency on Forensic, Pristina, Kosovo
academic position	scientific degree	name	middle name	last name	workplace

Topic of the dissertation:

Development and validation of SEM/EDS method for analysis of gunshot residues

Scientific area:

4.	Natural sciences, mathematics and informatics
code	name

Professional area:

4.2.	Chemical sciences
code	name

Scientific specialty:

Analytical chemistry

The report was written by:

professor	PhD	Stefan	Leonidov	Tsakovski	Faculty of Chemistry and Pharmacy - US
academic position	scientific degree	name	middle name	last name	workplace

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 is mandatory to fill in if answer B is marked. The publication activity of the candidate is analyzed. The response of the results achieved (quoted) is analyzed.
The results of the dissertation thesis are published in two research papers in quartile Q2 journals, with two citations (excluding self-citations) noted.

2. The relevance of the topic of the dissertation:

A) The topic is relevant and new (there are no known results on the topic by other authors)	8 points	

B) The topic is relevant and results from other authors are known	6 points	X
C) The topic is not relevant, but results from other authors are known	2 points	
D) The topic is not relevant and no results from other authors are known	1 point	
E) The topic does not correspond to the level of dissertation	0 points	
		one of the answers given is marked with the sign "X"

The evaluation of the relevance of the dissertation must be substantiated
The development of sensitive and reliable SEM/EDS methods for the determination of gunshot residue is of paramount importance for forensic science and a prerequisite for creating of comparable databases for different types of firearms.

3. Type of research:

A) Theoretical	4 points	
B) Applied	4 points	X
C) Theoretical with application elements	4 points	
D) It does not correspond to the level of dissertation	0 points	
		one of the answers given is marked with the sign "X"

The level of research must be substantiated if answer D is marked.

4. 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	3 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 PhD thesis are realistic, dominantly with applied interest and can be summarized as follows: (i) optimization and validation of the proposed SEM/EDS method; (ii) development of a database of the GSR elemental composition of criminal incidents in the Republic of Kosovo; (iii) investigation of the dependence of the number of GSR particles on the time after production of a shot, as well as on the number of shots.

5. Contributions of the dissertation:

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 contributions of the PhD thesis logically follow from the set goals and can be summarized as follows: (i) a detailed optimization and validation of a SEM/EDS method is performed for determining the elemental composition of shotgun residues from firearm incidents in the Republic of Kosovo. The obtained data allow the identification of newly emerging weapons on the Kosovo market; (ii) the persistence of GSR particles is assessed as a function of sampling time, number of shots and caliber of weapon used, which is a prerequisite for revising the working protocol for GSR sampling in the Republic of Kosovo.

6. Conclusion

A) The evaluation of the dissertation is **POSITIVE**	This evaluation is assigned to a total number of at least 40 points	X
B) The evaluation of the dissertation is **NEGATIVE**	This evaluation is assigned to a total number below 40 points	
		one of the answers given is marked with the sign "X"

To be filled in at the request of the member of the scientific jury
Based on the presented results, I give a positive assessment and propose to the Scientific Jury to award the educational and scientific degree "Doctor" to Milazim Tahirukaj in professional field 4.2. Chemical sciences (Analytical Chemistry).

10.05.2023	The report was written by:	
date		signature