DR.10 DOCTORAL THESIS EVALUATION REPORT[1]			
DOCTORAL CANDIDATE			
First and last name:		Marija Gregov, mag.ing.techn.aliment.	
Registration number:		416/PT	
GENERAL INFORMATION ABOUT THE STUDY PROGRAMME			
Institution responsible for organizing the studies:		University of Zagreb, Faculty of Food Technology and Biotechnology	
Name of study programme:		Biotechnology and Bioprocess Engineering, Food Technology and Nutrition	
Name of partner institution *(in case of dual doctorate)***:**			
Name of doctoral study programme at partner institution *(in case of dual doctorate)***:**			
Area / field / branch *(if the doctoral study programme is performed within a branch)***:**		Biotechnical Sciences / Food Technology	
INFORMATION ON THE DOCTORAL THESIS			
Thesis language		English	
Thesis title:	*In the language of the thesis*	Optimizing the ozonation process of surface water in drinking water treatment	
	In Croatian	Optimiranje procesa ozoniranja površinske vode pri obradi vode za piće	
	In English	Optimizing the ozonation process of surface water in drinking water treatment	
MENTOR(S)			
		Full name, title:	**Institution, country:**
Mentor:		Josip Ćurko, PhD	Faculty of Food Technology and Biotechnology, University of Zagreb, Croatia
Mentor:			
THESIS EVALUATION COMMITTEE			
Appointed Thesis Evaluation Committee[2]:		**Full name, title:**	**Institution, country:**
		1. Marin Matošić, PhD	Faculty of Food Technology and Biotechnology, University of Zagreb, Croatia
		2. Jasenka Gajdoš Kljusurić, PhD	Faculty of Food Technology and Biotechnology, University of Zagreb, Croatia

[1] Forward the completed and signed DR.10 form to the appropriate Student Office in digital and print format.
[2]Committee members 6 and 7 only in case of a dual doctorate

	3. Magdalena Ujević Bošnjak, PhD	Croatian Institute of Public Health
	4.	
	5.	
	6.	
	7.	
Session of the competent body and agenda item within which the Committee was appointed:	8th regular session of the Faculty Council of the University of Zagreb, Faculty of Food Technology and Biotechnology for the academic year 2024/2025 (ad 20)	

DOCTORAL THESIS EVALUATION

Thesis form:	☐ monograph ☒ Scandinavian model ☐ artistic work	
Thesis is evaluated:	☒ for the first time	☐ after revision
Thesis should be:	☒ accepted ☐ revised ☐ rejected	

Explanation for the above opinion *(specifying original scientific or artistic contribution and new discovery)***:**

The dissertation of the candidate Marija Gregov, which was prepared as part of the postgraduate study programme Biotechnology and Bioprocess Engineering, Food Technology and Nutrition at the Faculty of Food and Biotechnology at the University of Zagreb, is entitled "Optimizing the ozonation process of surface water in drinking water treatment t" and represents a scientifically relevant and methodologically sound contribution to the field of water technology and health protection.
The dissertation was written as part of the research project "Mitigating the negative effects of climate change on the treatment of surface water in drinking water production through flocculation and ozonation", which was financed by the Environmental Protection Fund and the Ministry of Environmental Protection and Energy.
The dissertation was prepared as a joint project (the so-called "Scandinavian model") and comprises three scientific papers published in prestigious international journals. The research is based on the current problem of optimizing ozonation with the aim of reducing the formation of bromate, a potentially carcinogenic disinfection by-product. The particular value of the dissertation lies in the development of predictive models based on advanced analytical techniques (fluorescence and NIR spectroscopy) and machine learning methods (artificial neural networks), which corresponds to the most modern approaches in the field of water technology.

The applicant has demonstrated a high level of scientific maturity in planning, conducting and interpreting experimental research. By using the Box-Behnken experimental design in combination with modelling, an optimised ozonation strategy has been developed that enables efficient water treatment with minimal bromate formation. In the thesis, hypotheses and objectives are clearly formulated and achieved, and the scientific contribution is also visible through the practical applicability of the results in water treatment systems.

The thesis is logically structured, linguistically and technically well organised and cites relevant and up-to-date scientific literature.

The thesis fulfils all scientific and methodological criteria for acceptance as a doctoral thesis and represents a significant contribution to the scientific field of food technology and environmental engineering.

Opinion and proposal:

On the basis of the above, the Evaluation Committee is of the opinion that the doctoral thesis of the applicant Marija Gregov, mag. ing. techn. aliment. was written in accordance with the hypotheses and objectives set out and represents a significant original scientific contribution, and unanimously proposes the acceptance of Marija Gregov's doctoral thesis and referral to the further procedure for obtaining the academic degree of Doctor of Science in the field of biotechnological sciences, scientific field of food technology.

Separate opinion *(only if a member of the Thesis Evaluation Committee has a separate opinion)***:**

Signature

(full name of Committee member)

Additional comments *(optional)*

	Full name, title, institution, country	**Signature**
Signatures of Thesis Evaluation Committee members[3]	1. Marin Matošić, PhD *(Chair of the Committee)*	
	2. Jasenka Gajdoš Kljusurić, PhD	
	3. Magdalena Ujević Bošnjak, PhD	
	4.	
	5.	
	6.	
	7.	

In Zagreb, on June 4th, 2025

[3] Committee members 6 and 7 only in case of a dual doctorate.