Přírodovědecká fakulta
Faculty of Science

Jihočeská univerzita v Českých Budějovicích
University of South Bohemia in České Budějovice

SUPERVISOR'S STATEMENT ON BACHELOR/~~DIPLOMA~~* THESIS

Name of the student: Sara Shojaei
Study program: Biological Chemistry
Department/Institute: Department of Chemistry
Thesis title: Effect of various number of basal and covering polyelectrolyte laeyrs on immobilized enzyme activity

Supervisor: RNDr. Ján Štěrba, Ph.D.
Supervisor`s affiliation: Department of Chemistry, FSci USB

	Point scale[1]	Points
(1) FORMAL REQUIREMENTS		
Formal and graphical quality of the thesis	0-3	2
Ability to work with literature	0-3	3
Language and stylistics	0-3	3
Formal requirements – points in total		8
(2) PRACTICAL REQUIREMENTS		
Fulfillment of the aims	0-3	3
Ability to understand the results, their interpretation, and clarity of the results, discussion, and conclusions	0-3	2
Discussion quality – interpretation of results and their discussion with the literature	0-3	2
Experimental difficulty of the thesis, independence in experimental work	0-3	2
Contribution of the thesis to the knowledge in the field and the possibility to publish the results (after eventual supplementary experiments)	0-3	2
Practical requirements – points in total		11
POINTS IN TOTAL (MAX/AWARDED)	**24**	19

* Choose one

[1] Mark as: 0-unsatisfactory, 1-satisfactory, 2-average, 3-excellent.

Comments of the supervisor on the student and the thesis:

Sara Shojaei started to work together with another student on new topic, at least regarding bachelor theses – surface modifications, more specifically layer-by-layer application for immobilization of enzymes. Such a topic is relatively well studied in terms of immobilization of various proteins and bioactive substances, some practical aspects however, are not much studied yet. In our laboratory, we previously worked on immobilization of a dehalogenase enzyme, which proved to be activity.

That was a reason for this bachelor thesis, as it was needed to also perform some basic analyses on model proteins/enzymes. Horseradish peroxidase was chosen, as it is a well-known enzyme, there a variety of various substrates for checking the activity of the enzyme.

The beginnings were very slow, and it was obvious that Sara needed some time to get into the topics, after some time everything got better. Writing was also usual – taking a lot of time, resulting also in prolongation of studies. At the end, I must say, I was very much surprised, as Sara was able to write a very nice thesis covering the important aspects for the work, processing the results, and discussing it and this was one of the works, where I was almost not needed when checking and correcting it. I think Sara has a big potential for a future carrer in science or any other field.

Conclusion:

In conclusion, I

r e c o m m e n d ~~/ d o n o t r e c o m m e n d~~*

the thesis for the defense.

In České Budějovice date **15. 6. 2022**

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signature