



SUPERVISOR'S STATEMENT ON BACHELOR THESIS

Name of the student: Kerstin Hinterndorfer
Study program: Biological Chemistry
Department/Institute: Institute of Chemistry
Thesis title: Content of pigment cofactors in photosynthetic proteins upon illumination-induced xanthophyll cycle in eukaryotic alga *Nannochloropsis oceanica*

Supervisor: Radek Litvín
Supervisor's affiliation: Institute of Chemistry & Biology Centre CAS

	Point scale ¹	Points
(1) FORMAL REQUIREMENTS		
Formal and graphical quality of the thesis	0-3	2
Ability to work with literature	0-3	2
Language and stylistics	0-3	2
Formal requirements – points in total		6
(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	3
Practical requirements – points in total		12
POINTS IN TOTAL (MAX/AWARDED)	24	18

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

Comments of the supervisor on the student and the thesis:

The bachelor thesis project was planned on the basis of amassed experience in working with *Nannochloropsis* species in our lab. The major idea of Kerstin's thesis revolves around the very important interplay between the need to collect light efficiently and in sufficient quantity and the opposing need for protection against the effects of excess of energy in photosynthetic membranes. Kerstin's work indicated that some of the properties of the key photoprotective mechanism, the xanthophyll cycle, in *Nannochloropsis* differ from land plants. I consider this a very important finding and we are continuing the work started by Kerstin in the hope of providing more definite answers.

Kerstin did the experimental part of her bachelor thesis in our lab as part of a demanding study program in Biological Chemistry. The time she could dedicate to experimental work (but also to writing the thesis) was therefore quite limited. This limitation most visibly presents itself in the small number of successful experiments included in the thesis. Kerstin managed to learn all the requisite techniques and methods needed to carry out her experimental work though the reproducibility of her results was initially not that good. This could be certainly overcome if more time had been available. Kerstin worked really hard while writing the thesis and although the final text has some rough edges I think it is good and suitable for defense. I believe Kerstin learned a lot during her work with us and that this experience will serve her well in her future endeavors. In my opinion, Kerstin fulfilled all criteria required of a student in preparation of a bachelor thesis.

Conclusion:

**In conclusion, I
r e c o m m e n d
the thesis for the defense.**

In České Budějovice date 17 September 2018



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signature