



Faculty  
of Science

Palacký University  
Olomouc

## Record of Dissertation Thesis Defense

Candidate: Mgr. Rostislav Langer  
Study program: Chemistry / Physical chemistry  
Department: Department of Physical Chemistry / CATRIN  
Head of committee: doc. RNDr. Karel Berka, Ph.D.

After introducing the committee Mgr. Rostislav Langer gave his lecture „Structural, electronic, and magnetic properties of nanomaterials for potential magnetic, energy storage, and catalytic applications“.

After the lecture, the review report prepared by Prof. Šob (MUNI) stated that the thesis met the academic and legal requirements needed for a PhD Thesis at most European universities and do not raise any comments or questions to be answered by the student.

Next, Dr. Vazquez (FZU AV ČR) read his review report and student responded several comments and questions.

Both reviewers stated that the thesis meet the academic and legal requirements. The following questions were also raised from the committee:

Prof. Kvítek: “Could you also simulated the effect of voltage on supercapacitors via your theoretical studies?”

Assoc. prof. Jurečka: “Can you compare your supercapacitors with other supercapacitors or lithium batteries?” commented also by supervisor Assoc. prof. Blonski.

Assoc.prof. Berka: “Given the amount of work you have done; would it be possible to team it up with usage of modern machine learning techniques to guide further progress in the field?”

The student answered all the questions with sufficient knowledge.

Supervisor applauded the progress of the student during his Ph.D. studies to become scientist.

The committee stated that he fulfilled the conditions for a successful defence of his PhD thesis.  
(votes 7 yes/0 no / 0 invalid)

Olomouc, 1.12.2022

doc. RNDr. Karel Berka, Ph.D.

Head of committee