Brno University of Technology
Central European Institute of Technology BUT

Supervisor´s report

Academic year: **2025/2026**

Student´s name: Ing. Tomáš Krajňák

Doctoral programme: **Advanced materials and nanosciences**

Supervisor´s name: **Prof. Ing. Jan Čechal, Ph.D.**

Name of doctoral thesis topic: Structure of tricarboxylic acids on metal surfaces

Overall evaluation of the doctoral thesis and study of the doctoral student :

The Ph.D. thesis by Tomáš Krajňák summarizes his research on self-assembled molecular layers, utilizing them as charge injection layers for efficient organic-semiconductor/metal electrode interfaces. The included research comprises one published paper with Tomáš as the first author (ACS Appl. Mater. Interfaces) and the experimental results that serve as the basis for the manuscript in its final state of preparation, also with Tomáš as the first author. His original contribution covers multitechnique experimental work, data analysis, and writing the initial manuscript.

During his Ph.D., Tomáš Krajňák has shown the ability to conduct experiments on multiple demanding techniques independently. I especially appreciate his STM results on multilayer molecular systems. He was capable of solving scientific and technical issues he encountered and understanding the topic. He became a valuable researcher in our group as he carried out his experiments carefully, was able to maintain/fix the experimental equipment, and educated his younger colleagues.

In his scientific work, in addition to the already mentioned studies, he developed a replica-mold technique to form hydrogels for ophthalmic applications (Sci. Rep., first author) and contributed to one publication of our group and one publication during his internship in Vienna.

In summary, considering scientific output and my very positive personal experience with Tomáš Krajňák, I assess his work as very good. In my opinion, the reviewed thesis **fulfills** all the requirements for a Ph.D. thesis. This thesis **is** ready for oral defense before the respective committee.

Brno, 2.9.2025

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Prof. Ing. Jan Čechal, Ph.D.