CTU
CZECH TECHNICAL UNIVERSITY IN PRAGUE

THESIS REVIEWER'S REPORT

1 IDENTIFICATION DATA

Thesis title:	**Break junction data clustering using supervised and unsupervised machine learning**
Author's name:	**Oliver Klimt**
Type of thesis:	bachelor
Faculty/Institute:	Faculty of Electrical Engineering
Department:	Department of Physics

Thesis reviewer:	Ing. Vladimir Petrik, Ph.D.
Reviewer's department:	IMPACT, CIIRC, CVUT

2 EVALUATION OF INDIVIDUAL CRITERIA

Assignment **challenging**

The goal is to aply machine learning techniques to analyse conductivity of organic molecules. The combination of ML and chemistry makes the assignment interesting and challenging.

Fulfilment of assignment **fulfilled**

All goals were fulfilled.

Methodology **correct**

The approach is correct. First, data are analyzed in detail and preprocessed by ML. The clustering is applied afterwards and results are analyzed manually.

Technical level **A - excellent**

The thesis is technically sound, the applied ML techniques are well explained and suitable for the required analysis. Many clustering algorithms were compared in the thesis.

Formal and language level, scope of thesis **A - excellent**

The break-junction problem is described nicely such that also non-experts can understand the main ideas. The thesis is well-structured and easy to read. Formally, single sentence paragraphs should be avoided in order to make the text more readable.

Selection of sources, citation correctness **A - excellent**

Relevant sources are cited.

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3 OVERALL EVALUATION

The thesis is nicely written and applied appropriate ML techniques correctly for the given task. The grade that I award for the thesis is **A - excellent**.

Date: June 4, 2024 Signature: