CTU CZECH TECHNICAL UNIVERSITY IN PRAGUE

THESIS SUPERVISOR'S REPORT

I. IDENTIFICATION DATA

Thesis title: The Structure of Quantum Dots

Author's name: Ruhani Dadashov

Type of thesis: master

Faculty/Institute: Faculty of Electrical Engineering (FEE)

Department: Microelectronics **Thesis reviewer:** Jan Voyes

Reviewer's department: Microelectronics

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment challenging

How demanding was the assigned project?

The project needed the good physics knowledge and basic experiences with physical simulations.

Fulfilment of assignment fulfilled

How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.

All the tasks were fulfilled.

Activity and independence when creating final thesis

B - very good.

Assess whether the student had a positive approach, whether the time limits were met, whether the conception was regularly consulted and whether the student was well prepared for the consultations. Assess the student's ability to work independently.

The student chosen its narrow topics. He was active in the theoretical description of quantum computing. The simulation part would need more time and discussion, which was reduced due to pandemic situation.

Technical level B - very good.

Is the thesis technically sound? How well did the student employ expertise in his/her field of study? Does the student explain clearly what he/she has done?

The student used very complex simulation tool. He was able to solve problems connected with the software and implementation of the quantum models of diamond defects.

Formal level and language level, scope of thesis

D - satisfactory.

Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?

The formatting is good, only some pictures have too small lettering and the English level of the text is relatively low.

Selection of sources, citation correctness

A - excellent.

Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?

The student used a broad literature resources. The citations meet the standards.

Additional commentary and evaluation (optional)

Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

The thesis has a relative good quality. I miss the deeper explanation of the results and their connection with quantum quibits. The student will try to participate in the similar field in the following PhD study.



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III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

With regards to the pandemic situation and other problems connected with the status of abroad student I can say, that the students work fulfilled all the criteria for master thesis.

The grade that I award for the thesis is **B** - very good.

Date: 24.5.2021

Signature: