

I. IDENTIFICATION DATA

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|------------------------|-----------------------------------------------------------------------------|
| Thesis title: | Interaction of optically active thin diamond films with biomolecules |
| Author's name: | Rufat Ibrahimov |
| Type of thesis : | bachelor |
| Faculty/Institute: | Faculty of Electrical Engineering (FEE) |
| Department: | Department of Physics |
| Thesis reviewer: | Štěpán Potocký |
| Reviewer's department: | Department of Physics (13102) |

II. EVALUATION OF INDIVIDUAL CRITERIA

| Assignment | challenging |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>How demanding was the assigned project?</i> | We chose highly current topics, demanding but at the same time with easily completed tasks for the student. Required study of literature and physical principles. Combining technology and analytical measurement methods to get the work done. |

| Fulfilment of assignment | fulfilled with minor objections |
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| <i>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.</i> | The student managed to fulfill the assignment and individual goals. It was possible to achieve new results and knowledge on which to build future work that would have publication potential. Unfortunately, however, the form of the presentation diminishes these results. |

| Activity and independence when creating final thesis | D - satisfactory. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <i>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.</i> | |
| Unfortunately, both the communication and activity of the student were weak, even despite repeated consultations and feedback, the work was not finished to a high standard. | |

| Technical level | C - good. |
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| <i>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?</i> | |

The submitted work has an average professional level, which could reach higher values, assuming a more active approach.

| Formal level and language level, scope of thesis | D - satisfactory. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <i>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?</i> | |

The work suffers from formal and typographical deficiencies that reduce the achieved results which is the result of submitting the work at the last moment, when I, as a supervisor, did not have the opportunity to correct them.

| Selection of sources, citation correctness | C - good. |
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| <i>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?</i> | |

The resources are relevant to the complexity of the work and the range of methods used. In my opinion, the sources used are sufficient, up-to-date and relevant for the given work. Unfortunately, however, the form of the citations does not correspond to the usual standard. At the same time, it will probably be difficult for the opponent to assess his own



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THESIS SUPERVISOR'S REPORT

contribution to the work, which I, as a supervisor, know, but it would be appropriate to clearly state what are his results and his own contribution to the work.

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.

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

Summarize your opinion on the thesis and explain your final grading.

Despite formal shortcomings, it can be stated that Rufat Ibrahimov got acquainted with the current state of the art of optical centers in diamond. The student also proved his skills in the experimental part of the work, where he was able to alone prepare and grow ultrathin diamond layers with Si-V centers using plasma systems, operate complex (AFM/Raman/PL) analytical instruments and analyze the results. With a more proactive approach, the level of the work could be higher.

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

Date: **29.8.2022**

Signature: