

Jury Member Report – Doctor of Philosophy thesis.

Name of Candidate: Mohammad Owais

PhD Program: Materials Science and Engineering

Title of Thesis: Design and characterization of thermally conductive polymer nanocomposites with tunable electrical resistivity

Supervisor: Dr. Sergey Abaimov, Skoltech

Name of the Reviewer: Prof. Dr. Jun Zhao

I confirm the absence of any conflict of interest	Date: 02-Sep.-2023
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The purpose of this report is to obtain an independent review from the members of PhD defense Jury before the thesis defense. The members of PhD defense Jury are asked to submit signed copy of the report at least 30 days prior the thesis defense. The Reviewers are asked to bring a copy of the completed report to the thesis defense and to discuss the contents of each report with each other before the thesis defense.

If the reviewers have any queries about the thesis which they wish to raise in advance, please contact the Chair of the Jury.

Reviewer's Report

Reviewers report should contain the following items:

- Brief evaluation of the thesis quality and overall structure of the dissertation.
- The relevance of the topic of dissertation work to its actual content
- The relevance of the methods used in the dissertation
- The scientific significance of the results obtained and their compliance with the international level and current state of the art
- The relevance of the obtained results to applications (if applicable)
- The quality of publications

The summary of issues to be addressed before/during the thesis defense

In this thesis, thermal interface materials with various polymer matrices and various inorganic nanofillers are designed, fabricated, and characterized. Various techniques have been used to characterized the materials.

The topic is interesting and some novel results have been obtained. The organization is fine and the language is almost acceptable. Both the analysis and discussion are in a reasonable way.

The candidate has published several decent papers in peer-reviewed journals.

There are still some shortcomings. For example, the language can still be further improved.

Provisional Recommendation

I recommend that the candidate should defend the thesis by means of a formal thesis defense

I recommend that the candidate should defend the thesis by means of a formal thesis defense only after appropriate changes would be introduced in candidate's thesis according to the recommendations of the present report

The thesis is not acceptable and I recommend that the candidate be exempt from the formal thesis defense