

Recommendation of Supervisor

I have read the Diploma Thesis written by Mr. Md. Nazrul Islam, under my supervision attentively and evaluated the importance of the thesis for the field of science.

The thesis suggested a comprehensive study on the lamination condition effect of various nanofiber webs in membrane technology compared to the literature. To investigate the lamination effect:

- PVDF, PAN, and PA6 polymeric nanofiber web were selected at various densities (1-1.5-2-3 gsm).
- 3 different lamination temperature was set for altering the lamination condition.
- Both water permeability and microparticle selectivity of membranes were tested and evaluated.
- Results were compared to commercial membranes.
- The best membranes were suggested to use in the future study.

This thesis aimed to develop a nanofibrous membrane with optimized lamination conditions.

The symbols, list of tables, and figures are given clearly within the thesis. The tables and figures represent the results of the experimental work. The findings and conclusions are explained clearly and carefully within the text, contributing to easily understanding the aim of the scientific work. The discussion part could be extended more in detail to support the results part.

Due to the COVID-19 pandemic, many laboratories have been forbidden from student visits. However, even under those conditions, Mr. Islam showed great effort to complete his diploma thesis. The plagiarism was checked by the Library of the Technical University of Liberec. The results indicated that there is no plagiarism in this thesis. I have checked using Grammarly program which shows “2 %” of plagiarism which is lower than the limit. The TUL library detected “0” plagiarism.

Depending on the evaluation below, I consider the Diploma Thesis on “Fabrication of Various Nanofibrous Hybrid Membranes for Separation of Micro-Particles” valuable scientific work, and I highly recommend it for defense. Therefore, the proposed grade for the thesis is “excellent (1)”.

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