

Supervisor's Review of a Master's thesis

Student's name and surname: Samuel Osei Owusu
Degree programme: N0722A130002 Polymer Engineering
Degree course: Polymer Engineering
Specialization
(if the degree course is divided into specializations):
Department: Polymer Engineering
Supervisor of the Master's thesis: doc. Ing. Alena Kalendová, Ph.D.
Academic year: 2023-2024

Title of the Master's thesis:
Biopolymers in Packaging Application

Assessment of the Master's thesis using the ECTS grading scale:

Assessment criteria	Assessment according to the ECTS
1. Topicality of the literature sources consulted	D – Satisfactory
2. Application of knowledge gained from literature	E – Sufficient
3. Theoretical aspect dealt with in the thesis	D – Satisfactory
4. Description of experiments and implementation methods	C – Good
5. Level of quality of processing of the results	D – Satisfactory
6. Interpretation of the results achieved and discussion thereof	E – Sufficient
7. Formulation of the conclusion of the thesis	D – Satisfactory
8. Student's approach to the Master's thesis	B – Very good

I recommend the submitted thesis for defence and propose the following assessment:

D – Satisfactory

Comments on the Master's thesis:

The presented work "Biopolymers in Packaging Application" focuses on the study of biopolymers from the viewpoint of their possible application in the packaging industry. Orotic acid and nanoclays cloisite 20A, 10A, Na⁺ were studied as modifying additives. Within the scope of the thesis, a literature research on the topic was carried out. Subsequently, a practical experiment was started.

In accordance with the assignment, the student deals with packaging in theoretical part of his master thesis. Next, it is described polylactic acid there. Final part of theory deals with PLA modification possibilities. In the practical part, attention is paid to materials specification, preparation of mixtures, measurement methodology and results.

From the viewpoint of supervisor, it could be summarised, that the student worked quite well in laboratory. Sometimes he has got problem to follow the supervisor instructions. Student demonstrated the ability to orient in new problematic and as well as in the scientific literature. I would reproach small amount of current literature sources. Some problems were encountered in the use of knowledge from the literature, results processing and their interpretation. The student should also be more attentive and precise.

In terms of the evaluation of the originality of the work, no shortcomings were found.

The objectives of the thesis have been fulfilled and therefore I recommend it for defence.

The Theses.cz system has detected percentage of similarity with other documents amounting to a maximum of 3%.

It is an authentic thesis.

Questions to be asked by the Master's thesis supervisor:

In Zlín on 17. 05. 2024

Signature of the Master's thesis supervisor