



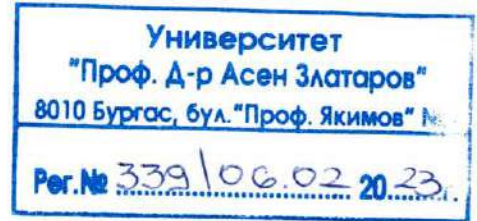
УНИВЕРСИТЕТ
ПО АРХИТЕКТУРА
СТРОИТЕЛСТВО
И ГЕОДЕЗИЯ

бул. "Хр. Смирненски" №1, София 1046, Р. България

тел.: (02) 963-52-45, факс: (02)865 68 63

e-mail: aceadm@uacg.bg; http://www.uacg.bg

Statement



Written by: Prof. Irina Slavova Ribarova, PhD, Civil engineer

Subject: PhD thesis of Maya Bogdanova Stancheva

Topic: Technological opportunities for resource recovery from waste streams

Legislative background:

This statement was prepared according to the requirement of Art. 10, para. 1 and 2 of the Law on the Development of the Academic Staff in the Republic of Bulgaria, and Art. 32 par. 1 of the Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria.

Documents:

To prepare the statement, the following documentation was reviewed

1. PhD thesis;
2. Abstract of the PhD thesis;
3. Publications;
4. Declarations

Findings

The PhD thesis is logically and appropriately structured in 7 chapters: Introduction; Literature review; Purpose and tasks of the development; Materials and methods; Results and discussion; Main conclusions and Contributions.

Topic: The research for resource recovery and research for improving existing technologies is timely and has potential for practical application.

Literature review: An impressive number of literary sources (240) were used, which were properly analyzed and cited.

Methodology: Modern research methods were used, including standardized methods for chemical analyses. This is appropriate approach because it enhances the credibility of the results and allows them to be compared with the results of other researchers. The anaerobic reactor used, shown on page 85, is exposed to direct sunlight. It would be good to consider the influence of light on the biomass formed and the rates of the processes. This section does not describe clearly enough which samples are subjected to ultrafiltration and what is the connection to the anaerobic reactor.

Results and discussion: The results are very well presented graphically and appropriately analyzed.

Contribution: I accept the contribution of the author.

Recommendations: Without belittling the enormous work that has been done and the significant results achieved, I share some observations in which I see potential for improving the future scientific work of Eng. Maya Stancheva.

- The title of the PhD is generally formulated. It could focus more specifically on the subject of work done.
- I accept the conclusions drawn from the literature review, but I believe that the areas/topics/problems in which science is still looking for answers should be more clearly defined in order to show more clearly the link with the aim of the dissertation.
- The repeatability of the performed chemical analyzes as well as the performed technological experiments should be more clearly defined. This could also be taken into account in the directions for future work outlined on page 124.
- Some direct translations from English have been used, such as 'precipitation', 'nutrients', 'macronutrients', etc. I recommend, whenever possible, to use Bulgarian terminology.
- If it is not the author's own work, there should be a clearly indicated source in the heading of the figure itself (the figures on page 12, page 52, page 61, page 87)
- Page 36: "*Recently, Huang et al. (2015) define a new approach...*", page 37 "*In recent years...(cited 2003 to 2016)*" etc. Since in science even 6 years (from 2016 to 2022) is too long period in some scientific fields, it would be good to adopt a principle to avoid such qualifications.

Plagiarism Checker

Since the PhD student declares the originality and credibility of the obtained results, and since he has duly cited the work of colleagues who work in this field, I consider that there is no plagiarism in the dissertation work.

Conclusion

The PhD work meets the legal requirements for originality of scientific and applied results, for in-depth theoretical knowledge of the research field and for the ability to conduct independent scientific research. Based on this, I give a positive opinion on awarding the educational and scientific degree "doctor" to Eng. Maya Bogdanova Stancheva.

2 February 2023 г.

Prepared by:

Подпис заличен
Чл.2 от ЗЗЛД

/Prof. I. Ribarova/