

CHARLES UNIVERSITY
FACULTY OF PHARMACY IN HRADEC KRALOVE

Department: Pharmaceutical Technology Master's degree program in Pharmacy

Opponent's review of Master's thesis

Student's name: Alaa Abdel Gawad Ahmed Osman Omar

Mentor of the thesis: PharmDr. Eva Šnejdrová, Ph.D.

Year of the thesis
defense: 2020

Opponent of the thesis: Assoc. Prof. PharmDr. Jitka
Mužíková, Ph.D.

Title of the thesis:
**Adhesive and rheological properties
of chitosan-based mixtures in media of different pH**

Formal comments: number of pages: 73, number of figures: 49, number of tables: 34,
number of references: 55.

Type of work: Experimental work

- a) The aim of the thesis is: Fulfilled
- b) Language and graphic level: Excellent
- c) Processing of the theory: Very good
- d) Methods description: Excellent
- e) Results description: Excellent
- f) Discussion and conclusions: Very good

I recommend Diploma thesis for the recognition as Rigorous thesis .

Opponent's comments:

The diploma thesis is elaborated carefully and it is written clearly. I have the comment to the table of content, because the abstract, the aim and abbreviations should be listed as numbered chapters. The theoretical part deals with alginates, chitosan, hypromellose and its extent is sufficient. I miss in the chapter Matrix tablets the basic definition of matrix tablets (where is the drug and where is the retarding component?). In all text I miss links to figures. The experimental methods and results are described excellent. I have only the comment to the sentence: "Samples of tableting mixtures were prepared at ambient temperature" It would be better to write a specific temperature. The work brings interesting results for the research in this science area.

Questions:

1. - p. 23 - Methocel solutions can be prepared by adding the Methocel powder to hot water or other solvents such as vegetable oil - Is it right?

2. What are the differences in the properties and uses of sodium alginate and calcium alginate?
3. Why were prepared samples of tableting materials at concentrations of 5 % and 20 %
4. Why was set the parameter shear rate range for the measuring: 0.1 – 100 s⁻¹?

Evaluation of Master's thesis: Excellent

Recommendations for the thesis defense: Recommended

In Hradec Kralove June 26 2020

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Opponent's signature