

Supervisor's opinion on the PhD. thesis
"Electronic properties of polysilylenes studied *in silico*
on oligomers in various conformations"

written by

Barbora Hanulíková

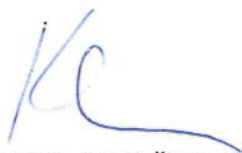
submitted to the

Tomas Bata University in Zlin

Ing. Barbora Hanulíková, studied Ph.D. programme „Technology of Macromolecular Compounds“ at the Faculty of Technology, TBU in Zlín, Czech Republic. Within her studies she has fulfilled all duties connected with the study programme and successfully passed the state exam in 2015. Her work is focused on theoretical calculations of molecular properties of various compounds, namely oligosilylenes in order to clarify some phenomena experimentally observed either by our group or taken from literature, and contribute to the development of interpretation framework concerning polysilylene structural features and properties emerging in thin films with increasing thickness. It can be generally said that she and several other colleagues provide support for the majority of our research group which is oriented experimentally. It must be noted, that her work is object oriented and it does not aim to develop or improve theoretical calculation methods. Therefore, standard SW packages were used throughout the work and virtual, or logical, experiments were carried out. Obtained results have been corroborated with known facts, observations and recent interpretations available in the field.

The dissertation thesis is well conceived and consists of three already published original full length articles in scientific journals and two other manuscripts submitted. All selected journals are relevant to the field of study and indexed by Thomson Reuters ISI Web of Science. Barbora Hanulíková is the main author of all these collected papers and her contribution to these publications was the most significant. Moreover, all papers were written with a relatively small number of co-authors, i.e. two or three authors. Besides the five papers included into the thesis, she is the co-author of other already published contributions recorded in Web of Science. Miss Hanulíková presented her results on international conferences with fulltext contributions in proceedings too. During her study at the TBU in Zlin, Miss Hanulíková has demonstrated sufficient diligence, knowledge and effort necessary for successful fulfilment of the studied PhD. programme.

With regard to these facts and according to my opinion, I recommend it to be defended and upon successful defence to award Miss Hanulíková the degree Doctor of Philosophy (Ph.D.).



Assoc. Prof. Ing. et Ing. Ivo Kuřitka, Ph.D. et Ph.D.

Supervisor

Zlín, 18.05.2016