

Supervisor's opinion on the PhD. Thesis
“Study of poly(vinyl alcohol) solution for inkjet printing”

written by
Pavol Šuly

submitted to the
Tomas Bata University in Zlin

Ing. Pavol Šuly, studied Ph.D. programme „Technology of Macromolecular Compounds“ at the Faculty of Technology, TBU in Zlín, Czech Republic. Although his work was performed mainly at the Centre of Polymer Systems, he joined many activities at the faculty including teaching. Within his studies he has fulfilled all duties connected with the study programme and successfully passed the state exam in 2015. His work is focused on study of suitability of PVA solution for digital inkjet printing. It is not only an ink formulation development, but also a more general study oriented on properties of the PVA solution in water/DMSO co-solvent. The work comprises an original contribution to general issues of printability analysis based on dimensionless numbers. Besides improvement in the field of printability analysis relevant for Newtonian fluids, new results in the field of dispensing of weakly viscoelastic fluids were achieved also. His experience and analytical framework embodied into the work is available for all eventual followers. Indeed, he is the first student defending such topic in our group and certainly, the work will help his younger colleagues in obtaining ink formulations faster and in a rational way rather than by empirical approach only.

The dissertation thesis is well conceived in form of a monograph. Besides that, Pavol published a paper recorded in Web of Science as the main author which is relevant to the topic of Thesis. However, his work was more practically oriented, as can be seen from the list of his projects. He is the co-author of other 5 already published contributions available in WoS. Pavol presented his results on international and national conferences with full-text contributions in proceedings too. Some parts of his work are in preparation for publishing. During his study at the TBU in Zlín, Pavol Šuly has demonstrated sufficient diligence, knowledge and effort necessary for successful fulfilment of the studied Ph.D. programme.

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



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

Supervisor

In Zlín, 21. 07. 2017