

Supervisor's opinion on the Ph.D. thesis  
"MULTISCALE HIERARCHICAL ZnO-BASED COMPOSITE SYSTEMS"

by

**Jakub Sedlák**

submitted to the

**Tomas Bata University in Zlín**

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Ing. Jakub Sedlák studied Ph.D. course „Technology of Macromolecular Compounds“ at the Faculty of Technology, TBU in Zlín, Czech Republic. Within his studies he has fulfilled all duties connected with the study programme and successfully passed the state exam in June 2014. His work is focused on preparation and characterization of multiscale hierarchical composite systems based on ZnO with potential as antibacterial additive, active component in lipophilic compositions and in photocatalysis.

The dissertation thesis is a thematically arranged collection of five articles (one accepted, one published, two submitted and the last manuscript is ready for submission). Selected journals are relevant to the field of study and they are impacted and indexed by Thomson Reuters ISI Web of Science. Jakub Sedlák is the first author of four papers and second author of the last manuscript. It must be noted that they were written in a small number of co-authors. The results have been partially published in the form of international conference contributions as well. Besides papers included into the thesis, Mr. Sedlák is the co-author of one other already published paper, another one accepted paper and several full text contributions to international conferences recorded in Web of Science.

His activity was oriented towards applied research too and he became a co-author of two registered proofs of concepts.

During his study at the TBU in Zlín, Mr. Sedlák 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, the submitted dissertation work is well conceived and I recommend it to be defended and upon successful defence to award Mr. Jakub Sedlák the degree Doctor of Philosophy (Ph.D.).



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

Supervisor

Zlín, 1. 08. 2014