

21.5.2018, in Liberec

Evaluation of Nhung H.A. Nguyen by supervisor

Nhung gained her master degree in biotechnology at Université Paris SUD in 2010. After that she was employed as a research assistant at King Mongkut's University of Technology in Bangkok, Thailand where she spent two years in Bioprocess Engineering Laboratory (and co-authored four papers). Nhung began her PhD study here five years ago. She was hard working from the beginning, establishing several methods for nanotoxicity assessment in our environmental microbiology laboratory. Nhung was involved in national and international project dealing with the effect of nanomaterials on living organisms. Her results were used in numerous presentations at international conferences and were published in several high-ranked scientific journals.

Nhung is always keen to learn new methods and approaches, therefore during her PhD study she attended scientific courses and also visited well known institutes (Institute of Hydrobiology, Czech Academy of Sciences, F.A. Forel institute in Université de Genève). Nhung has been using many techniques during her study: fluorescence microscopy, spectrophotometry, flow cytometry, gel electrophoresis, electron microscopy, molecular genetic techniques (namely qPCR and NSG), differential centrifugal sedimentation, dynamic light scattering etc. She is also proficient in culturing of bacteria and algae.

Especially I value her commitment to achieve reproducible and high quality results, she would not regret time to repeat experiments over and over to understand the crucial mechanisms driving toxicity or effects of nanomaterials. She was always busy either with evaluating results or planning new experiments. Besides that she was very patient tutor of undergraduate students. Her main problem is that she never says no when anybody needs her help. Personally, I like her cheerfulness so needed in every research group.

Concerning toxicity of Fe-based nanomaterials, Nhung has published three papers as a first author, two papers as a second author, one paper as third author in impacted journals (e.g. *Environmental Science Nano*, *Chemosphere*, *Ecotoxicity and Environmental Safety*) and co-authored deliverable report of EU 7th FP project. Moreover, she was first or second author of four other papers dealing with toxicity of nanomaterials (second author of paper in *Nanoscale*) and co-authored two conference papers indexed in WoS.

The thesis is therefore based on her publications, including summary, background, materials and methods, results and discussion, list of whole papers and conclusions. The thesis is written clearly and the main findings are highlighted in Conclusions part.

To conclude, Nhung have done highly proficient research leading to better understanding effects of nanomaterials on microorganisms and I can fully recommend her thesis for defence.

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