

## Curriculum Vitae

Xiyu Ouyang (欧阳喜雨) was born in Xi'an on 13 February, 1988. He graduated from NPU middle school in Xi'an in 2005. Afterwards, he went to study Chemistry at Wuhan University (Wuhan, China). The study was finished in 2009. In the same year, he was awarded the Erasmus Mundus Scholarship from the European Commission, which financially supported him a two-year master course Advanced Spectroscopy in Chemistry in Europe. He spent two years in the University of Leipzig in Germany with a six-month exchange in the University of Helsinki in Finland. His master thesis was about investigating the oxidation process of phospholipids by the presence of reactive oxygen species (ROS) using matrix-assisted laser desorption/ionization time of flight mass spectrometry (MALDI-ToF MS), supervised by Prof. Dr. Ralf Hoffmann from the University of Leipzig and PD Dr. Jürgen Schiller and Dr. Beate Fuchs from the University Hospital Leipzig.

In the summer of 2012, Xiyu started his PhD research at the Institute for Environmental Studies (IVM) of the VU University Amsterdam, the Netherlands, financed by a Marie Curie ITN project EDA EMERGE, funded by the European Commission within the 7th framework program. The project aimed to develop and optimize a comprehensive two-dimensional liquid chromatography system linked to a high resolution 96-384 wells fraction collector for in vitro effect testing and mass spectrometry detection, to support the identification and monitoring of emerging toxicants in effect-directed analysis (EDA). The work was performed under supervision of Prof. Jacob de Boer, Prof. Pim E. G. Leonards and Dr. Marja Lamoree and led to the result presented in this thesis. Xiyu is also a project partner of the MiSSE project (Mixture assessment of Endocrine Disrupting Compounds with emphasis on thyroidogenicity) funded by the Swedish Research Council (FORMAS), focusing on miniaturizing a T4-TTR binding assay for high throughput screening of indoor environmental samples. Parts of his work have been presented at international conferences such as HPLC (2013) Amsterdam, HPLC (2014) New Orleans, IMSC (2014) Geneva, SETAC (2015) Barcelona, HPLC (2016) San Francisco and a meeting of the Dutch Chemistry Society (KNCV) in Breda (2014).

## List of Publications

**X. Ouyang**, J. M. Weiss, J. de Boer, M. H. Lamoree, P. E. G. Leonards, Non-target analysis of household dust and laundry dryer lint using comprehensive two-dimensional liquid chromatography coupled with time-of-flight mass spectrometry. *Chemosphere*. 166, 431–437 (2017).

**X. Ouyang**, P. E. G. Leonards, Z. Tousova, J. Slobodnik, J. de Boer and M. H. Lamoree, Rapid screening of acetylcholinesterase inhibitors by effect-directed analysis using LC × LC fractionation, a high throughput in vitro assay, and parallel identification by time of flight mass spectrometry. *Anal. Chem.* 88, 2353–60 (2016).

**X. Ouyang**, P. Leonards, J. Legler, R. van der Oost, J. de Boer and M. Lamoree, Comprehensive two-dimensional liquid chromatography coupled to high resolution time of flight mass spectrometry for chemical characterization of sewage treatment plant effluents. *J. Chromatogr. A.* 1380, 139–145 (2015).

W. Brack, S. Govender, T. Schulze, M. Krauss, M. Hu, M. Muz, J. Hollender, K. Schirmer, J. Schollee, A. Hidasi, J. Slobodnik, Z. Rabova, S. Ait-Aissa, M. Sonavane, M. Carere, M. Lamoree, P. Leonards, S. Tufi, **X. Ouyang**, M. Schriks, K. Thomas, A. de Almeida, J. Froment, M. Hammers-Wirtz, M. Ahel, S. Koprivica, H. Hollert, T.-B. Seiler, C. Di Paolo, A. Tindall, P. Spirhanzlova, A. C. de Almeida, J. Froment, M. Hammers-Wirtz, M. Ahel, S. Koprivica, H. Hollert, T.-B. Seiler, C. Di Paolo, A. Tindall and P. Spirhanzlova, EDA-EMERGE: an FP7 initial training network to equip the next generation of young scientists with the skills to address the complexity of environmental contamination with emerging pollutants. *Environ. Sci. Eur.* 25, 18 (2013).

**X. Ouyang**, J. Froment, P. E. G. Leonards, G. Christensen, K.-E. Tollefsen, J. de Boer, K. V. Thomas, M. H. Lamoree, Miniaturization of a transthyretin binding assay using a fluorescent probe for high throughput screening of thyroid hormone disruption in environmental samples. Under Review.

## **Acknowledgement**

Undertaking a PhD is a painful but most enjoyable experience. I guess supervising a PhD student is the same, especially if it was with someone with a totally different cultural background. Therefore, I would like to first express my sincere gratitude to my promotor and co-promotors, Jacob de Boer, Marja Lamoree and Pim Leonards. Without your persistent encouragement, support and patience, it wouldn't have been possible to have this work done.

I am also very appreciative to be part of the EU project EDA-EMERGE and the Swedish project MISSE. These two projects provided generous funding and offered the great opportunity to collaborate with all these excellent environmental scientists around the world!

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## Acknowledgement

《易》曰：“观乎天文，以察时变，观乎人文，以化成天下。”吾少博涉史传，好百家之言，亦叹山河之有尽，而观宇宙之无穷。及年弱冠，远渡重洋，负笈千里于西洋之德意志，芬兰诸国。及学业稍成，复游学于尼德兰，蒙师不弃，忝列门墙。

夫尼德兰国者，虽蕞尔弹丸，亦曾执鼎欧陆。尝见围于法兰西之路易与英吉利之查理，窘蹙无以自存。亡国灭种，止在旦夕。然其国民独立不挠，乃掘北海之堤，尽灌其国。宁漂流无归，保独立于舰队之上，必不肯隶人藩属，而受他族之辖制。

今求学于此，习西洋格物之法，凡四年尔，幸得小成。个中甘苦，不足为外人道哉。导师雅各布，皮姆，玛雅，待人宽和，循循善诱，不至半途而废，终授博士，诚惶诚恐。兼有众中西友人，同心而共济，可谓能相终始，真相知者也。夫人之相知，贵识其天性，因而济之。禹不逼伯成子高，全其节也；仲尼不假盖于子夏，护其短也；诸葛不逼元直以入蜀，华子鱼不强幼安以卿相。吾尝高越博之风，而慕亮博之性。何博天资聪颖，吾每师之，而未能及。

鸟飞反故乡兮，狐死必首丘。游学欧陆，迄至于今，已七年矣。钧台移柳，非玉关之可望；华亭鹤唳，岂河桥之可闻？然见我中华之蒸蒸日上，心自欣喜。更念襁抱提携，含辛茹苦，子於父母之恩，不可言报。惟愿其身体安康，得享天伦。

拙字二三，不知所云。

丙申年秋于荷京。