

Program for Advancing Strategic International Networks to Accelerate the Circulation of Talented Researchers
Japan-ASEAN Collaboration Research Program on Innovative Humanosphere in Southeast Asia:
In search of Wisdom toward Compatibility Growth and Community in the World

Report

Period of inviting: Nov 10 - Dec 24, 2015

Place of accepted: Graduate School of Global for Environmental Studies.

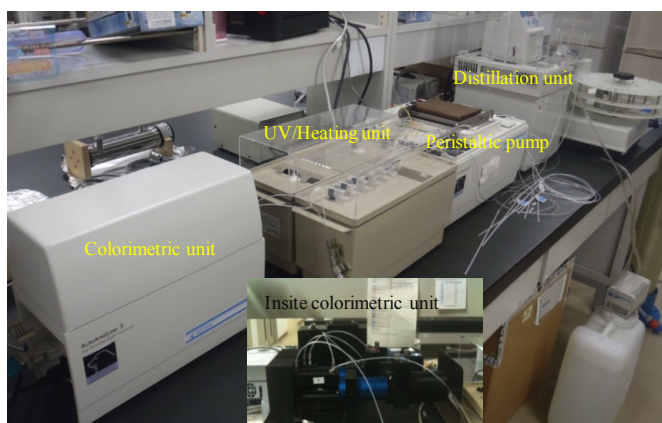
Kyoto University

Name: Dinh Quang Hung

Institute/University: School of Environmental Science and Technology.

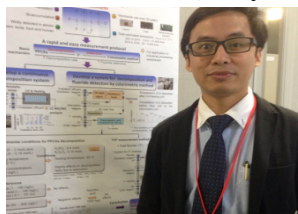
Hanoi University of Science and Technology

Water contamination by perfluorinated compounds (PFCs) is a major environmental issue. However, reports on PFCs in water environments and industries related to PFCs are limited since the current analytical methods are extremely expensive and complicated. Therefore, it is essential to develop a fast and easy measurement protocol for these compounds. Our research group focused on development of a continuous flow analysis, which would measure fluoride ions by a colorimetric method after PFCs decomposition, using AutoAnalyzer 3. The analytical system consisted of five parts: an auto sampler, a decomposition unit, a distillation unit, a detection unit, and a peristaltic pump. Previous results showed the decomposition rates of six PFCAs. The decomposition rates these compounds were 90% (PFBA), 89% (PFPA), 83% (PFHxA), 76% (PFHpA), 71% (PFOA), and 71% (PFNA). Therefore, my research activities this time were to improve the decomposition rates of these compounds and other PFCs. The experimental conditions were irradiation time and UV lamp power. Besides that, I participated in other academic activities such as:



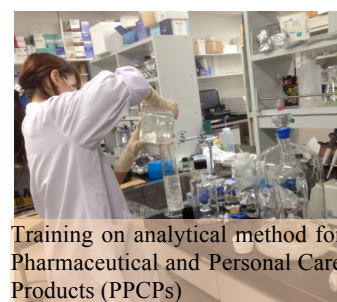
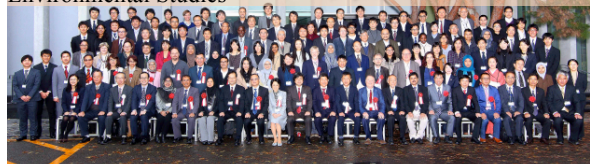
Colorimetric unit for study on development of an analytical method for PFCs by continuous flow analysis

- Poster presented in the JSPS Asian Core Program (IWM) 5th Comprehensive Symposium (CS5). Kyoto University, Kyoto, Japan (November 19 - 20, 2015).
- Attended the International Workshop for Implementation of Global Collaboration on Education, Research and Business in Environmental Studies. Kyoto University, December 11-14, 2015.
- Studied on analytical method for Pharmaceutical and Personal Care Products (PPCPs) in Research Center for Environmental Quality Management at Kyoto University.



Poster presentation in the 5th Symposium between KU and University of Malaya

International Symposium of global collaboration on Education, Research and Business in Environmental Studies and International Workshop for Implementation of global collaboration on Education, Research and Business in Environmental Studies



Training on analytical method for Pharmaceutical and Personal Care Products (PPCPs)