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EDUCATION

- 2017/09 – 2021/06 Ph.D. Institute of Public Health, National Yang Ming Chiao Tung University, Taiwan
- 2014/09 – 2016/06 M.S. International Health Program, National Yang Ming University, Taiwan
- 2009/09 – 2013/10 B.A. Department of Biology, VNU-University of Sciences, Vietnam

EMPLOYMENT

- 2021/08 - present Postdoctoral Researcher RCEC, Academia Sinica, Taiwan
- 2016/09 - 2017/08 Research Assistant Institute of Environmental and Occupational Health Sciences, National Yang Ming University, Taiwan

RESEARCH INTEREST

I focus my research on environmental health. I study the characteristics and sources of ambient air pollution, focusing on PM_{2.5} and its chemicals. Knowing the components of PM_{2.5}, I apply the source apportionment model to identify the contributors and their contribution quantity. At the same time, I also explore how air pollution from different sources influences human health. Although

RESEARCH HIGHLIGHTS

Source apportionment of PCDD/Fs in the atmosphere

PCDD/Fs are highly concerned pollution because of their toxicity and persistence in the environment. Because of its stability, PCDD/Fs can be originated from the local sources or be transported through long-range transport to the monitored areas. Different tools should be used to study their origin, including profile analysis or transportation simulation model. In my research, I have found that the significant sources of PCDD/Fs in Taiwan were industrial and traffic activities, which were reduced every year. However, during some special monsoon events, the atmosphere of Taiwan could be highly impacted by air pollution from other countries.

Health impacts of PM_{2.5}

Many research found an association between PM_{2.5} and human health. However, most of these researches were conducted considering PM_{2.5} as one type of pollutant. PM_{2.5} can work as a carrier that consisted of many different types of hazardous chemicals, including metals, ions, and organic

compounds. It is expensive and time-intensive to analyze all the components of PM_{2.5}. Therefore, we apply new methods using monitoring data for source apportionments. The source of PM_{2.5} can serve as a proxy for the features of PM_{2.5}. We have found that with the same increment amount of PM_{2.5}, stationary sources PM_{2.5} are associated with higher mortality risks than mobile sources of PM_{2.5}.

REPRESENTATIVE PUBLICATIONS (*: corresponding author)

1. **Ngo T. H.**, Yang Y.H., Chen Y.C., Pan W.C., Chi K.H.*, Continuous nationwide atmospheric PCDD/F monitoring network in Taiwan (2006–2016): Variation in concentrations and apportionment of emission sources. *Chemosphere* 255, 126979 (2020).
2. **Ngo T. H.**, Tsai P.C., Ueng Y.F. and Chi K.H.*, Cytotoxicity Assessment of PM_{2.5} Collected from Specific Anthropogenic Activities in Taiwan. *International Journal of Environmental Research and Public Health*, 16 (24). (2019)
3. **Ngo, T. H.**, Hsu, W.T., Chi, K.H.*, Evaluation of the Relative Health Risk Impact of Atmospheric PCDD/Fs in PM_{2.5} in Taiwan. *Aerosol and Air Quality Research*, 18: 2591–2599, 2018.
4. **Ngo, T. H.**, Tsou, H. H., Chen, Y. F., Chen, Y. W. and Chi, K. H.*, Sources Identification of PCDD/Fs in Soil and Atmospheric Deposition in Taiwan. *Chemosphere* 208, 374-381 (2018).
5. Chi, K. H.*, Li, Y. N. and **Ngo, T. H.**, Spatial and Temporal Variation of PM_{2.5} and Atmospheric PCDD/Fs in Northern Taiwan during Winter Monsoon and Local Pollution Episode. *Aerosol and Air Quality Research* 17, 3151-3165 (2017).
6. **Ngo, T. H.**, Wang, S. H., Ou Yang, C. H., Lin, T. Y., Li, C. T., Lee, C. T., Lin, N. H. and Chi, K. H.*, Long-term monitoring of atmospheric PCDD/Fs at Mount Lulin during spring season: PCDD/F source apportionment through a simultaneous measurement in Southeast Asia. *Chemosphere* 185, 368-375 (2017).
7. **Ngo, T. H.**, To, T. H., Ngo, T. T., Nguyen, H. M. and Chi, K. H.*, Atmospheric PCDD/F Concentration and Source Apportionment in Rural, Agent Orange Hotspots, and Industrial Areas in Vietnam. *Chemosphere* 182, 647-655 (2017).
8. Chi, K. H.*, **Ngo, T. H.**, Lin, T. Y., Ou Yang, C. H., Wang, S. H., Lee, C. T. and Lin, N. H., Evaluation of Atmospheric PCDD/Fs at Two High-Altitude Stations in Vietnam and Taiwan during Southeast Asia Biomass Burning. *Aerosol and Air Quality Research*, 16, 2706-2715. (2016)
9. Pan, S.Y., Liou, Y.T., Chang, M.B., Chou, Charles C.-K., **Ngo, T.H.** & Chi, K.H.* Characteristics of PCDD/Fs in PM_{2.5} from emission stacks and the nearby ambient air in Taiwan. *Sci Rep* 11, 8093 (2021).