

Chia-Hsiang Lai**Education :**

B.S. Department of Environmental Engineering, National Cheng Kung University(1997)

M.S. Institute of Environmental Engineering, National Sun Yat-Sen University(1999)

Ph. D., Institute of Environmental Engineering, National Sun Yat-Sen University(2004)

Career Experience :

Pluralistic instructor, Department of Business Management, SHIH CHIEN UNIVERSITY (KAOHSIUNG CAMPUS)(2002-2004)

Pluralistic assistant professor, Department of Business Management, SHIH CHIEN UNIVERSITY (KAOHSIUNG CAMPUS)(2004-2005)

Assistant Professor, Department of Nursing, Central Taiwan University of Science and Technology (2005-2010)

Assistant Professor, Department of Safety, Health and Environmental Engineering, Central Taiwan University of Science and Technology (2010-2013)

Associate Professor, Department of Safety, Health and Environmental Engineering, Central Taiwan University of Science and Technology (2013-Present)

Courses Taught :

Statistics

industrial ventilation

Seminar

Air pollution and control theory

Professional Fields :

Investigation and Analysis of Polycyclic Aromatic Hydrocarbons

Investigation and Analysis of Volatile Organic Hydrocarbons

Aerosol

Application of Receptor Model and Air Quality Model

Cytotoxicity of Heavy metals, Cr(VI), and Carbon black

Health Risk Assessment

Emission factor of vehicles and shafts in long tunnel

Research Interests :

Source profile of Vehicle Exhaust in long tunnel

Characteristics of Ambient Ozone and VOC, PAHs, Metals, Dioxins

Air Quality Modeling and Air Pollution Control

Health Risk Assessment of Hazardous Air Pollutants

Representative Publication in 5 Years :

1. **Lai C.H.**, Chen K.S., Ho Y.T., Peng YP, Chou YM (2005) Receptor modeling of source contributions to atmospheric hydrocarbons in urban Kaohsiung, Taiwan. *Atmospheric Environment* 39: 4543-4559. (SCI)
2. **Lai, C.H.***, Chen, K.S., Tsai, P.C., 2005. Health risk and emission source of hazardous air pollutants in Kaohsiung city. *Journal of Central Taiwan University of science and technology* 17: 113-135.
3. Peng YP, Chen KS, **Lai CH**, Lu PJ, Kao JH (2006) Concentrations of H₂O₂ and HNO₃ and O₃-VOC-NO_x sensitivity in ambient air in southern Taiwan. *Atmospheric Environment* 40: 6741-6751. (SCI)
4. Wang, H.K., Chen, K.S.* , Lu, J.J., Peng, Y.P., Wang, W.C., Tsai, M.Y., **Lai, C.H.**, 2007. Dry deposition of airborne particles and characteristics of polycyclic aromatic hydrocarbons in urban Kaohsiung, Taiwan. *Aerosol Air Qual. Res.* 7: 106-120.
5. Peng, Y. P., Chen, K. S., Lou, J. C., Hwang, S. W., Wang, W. C., **Lai, C. H.** and Tsai, M.Y., 2008. Measurements and Mesoscale Modeling of Autumnal Vertical Ozone Profiles in Southern Taiwan. *Teer. Atoms.ocean Sci.*, Vol 19, pp. 505-514. (SCI)
6. Wang, W.C., Chen K.S.* , Chen, S.J., Lin, C.C., Tsai, J.H., **Lai, C.H.**, Wang, S.K., 2008. Characteristics and receptor modeling of atmospheric PM_{2.5} at urban and rural sites in Pingtung, Taiwan. *Aerosol Air Qual. Res.* 8: 112-129. (SCI)
7. Chen, K.S.* , Lee, H.J., Wang, H.K., Wang, W.C., **Lai, C.H.**, 2008. Measurement and receptor modeling of atmospheric polycyclic aromatic hydrocarbons in urban Kaohsiung, Taiwan. *Journal of Hazardous Materials*: 166, 873-879. (SCI)
8. Chen, K. S., Wang, H. K. Peng, Y. P., Wang, W. C., Chen, C. H., **Lai, C. H.***,

2008. Effects of Open Burning of Rice Straw on Concentrations of Atmospheric Polycyclic Aromatic Hydrocarbons in Central Taiwan. *J. Air & Waste Manage. Assoc.* 58: 1318-1327. (SCI)
9. **Lai, C.H.***, Chen, K.S., Wang, H.K., 2009. Influence of rice straw burning on the levels of polycyclic aromatic hydrocarbons in agricultural county of Taiwan. *Journal of Environmental Science* 21: 1200-1207. (SCI)
10. Lai, C.H. H.C. Li, K.S. Chen*, 2009. Source characterization and the environment impact of open burning of rice straw residues on polycyclic aromatic hydrocarbons in agricultural county, Taiwan. *J. Environ. Eng. Manage.* 19: 79-88.
11. Wang, H.K., Huang, C.H. Chen, K.S.*, Peng, Y.P., **Lai, C.H.**, 2010. Measurement and source characteristics of carbonyl compounds in the atmosphere in Kaohsiung city, Taiwan. *Journal of Hazardous Materials* 179, 1115-1121. (SCI)
12. Peng, Y.P., Chen, K.S., Wang, H.K., **Lai, C.H.**, 2011. In situ measurements of hydrogen peroxide, nitric acid and reactive nitrogen to assess the ozone sensitivity in Pingtung County, Taiwan. *Aerosol and Air Quality Research* 11: 59-69. (SCI)
13. Chen, H.Y., **Lai, C.H.**, Wu, T.J., 2010. A study of factors affecting moving-forward behavior among people with spinal cord injury. *Rehabilitation Nursing* 36: 91-127. (SCI)
14. Peng, Y.P, Chen, K.S., Wang, H.K., **Lai, C.H.***, Lin, M.H., 2011. Applying Model Simulation and Photochemical Indicators to Evaluate Ozone Sensitivity in Southern Taiwan. *Journal of Environmental Science*, 23 (5): 790-797. (SCI)
15. **Lai, C.H.***, Peng, Y.P, 2011. Emissions of C₂—C₁₂ hydrocarbons in the Hsuehshan tunnel, Taiwan. *Journal of Environmental Science*, 23 (6): 941-948. (SCI)
16. Pai, L.W.*, Liu, H.L., **Lai, C.H.**, Chen, W.(2011). The effectiveness of physical leisure time activities on the older adult's physical functioning-a systematic review. *International Journal of Evidence-Based Healthcare*, 9(3): 310.(SCI)
17. **Lai, C.H.***, Peng, Y.P., 2012. Volatile hydrocarbon emissions from vehicles and vertical ventilations in the Hsuehshan traffic tunnel, Taiwan. *Environmental Monitoring and Assessment* 184(7): 4015-4028. (SCI)
18. **Lai, C.H.***, Chuang, K.Y., Chang, J.W., 2013. Characteristics of nano-/ultrafine

particle-bound PAHs in ambient air at an international airport. *Environmental Science and Pollution Research* 20: 1772-1780. (SCI)

19. **Lai, C.H.***, Chuang, K.Y., Chang, J.W., 2013. Source Apportionment of Volatile Organic Compounds at an International Airport. *Aerosol and Air Quality Research* 13: 689-698. (SCI)
20. Yan, C., Chen, K.F., **Lai, C.H.**, Lai, S.W., Chang, Q., Peng, Y.P., 2014. Photocatalytic degradation of Rhodamine B by microwave-assisted hydrothermal synthesized N-doped titanate nanotubes. *Journal of Environmental Sciences* 26,1505-1512. (SCI)
21. Chuang, K.Y., **Lai,C.H.***, Peng, Y.P., Yen, T.Y., 2015. Characteristics of particle-bound polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/Fs) in atmosphere used in carbon black feeding process at a tire manufacturing plant. *Environmental Science and Pollution Research* 22 (24), 19451-19460. (SCI)
22. **Lai,C.H.***, Yen, T.Y., 2016. Characteristics and aerosol size distributions of metal-containing paint particles at a spray-painting workplace. *RSC Advances* 6, 113754-113761. (SCI)

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