

# Curriculum Vitae

## Perng-Jy Tsai, Ph.D.

### Position

Distinguished Professor  
Dept. Environ. & Occup. Health,  
College of Medicine,  
National Cheng Kung University.



### Education Background

PhD in Environ. & Occup. Health,  
University of Minnesota (1995)

### Professional Experience

1. Governmental industrial hygiene inspector (1986/01-1991/09)
2. Lecturer/Associate Professor/Professor/Director of Dept. Environ. & Occup. Health, College of Medicine, National Cheng Kung University (1995/08-2011/07)
3. Dean/Professor of School of Public Health, China Medical University (2011/08-2013/07)
4. President of Taiwan Occupational Hygiene Association (2003/04-2006/03)
5. Distinguished Professor of Dept. Environ. & Occup. Health, College of Medicine, National Cheng Kung University (2010/07- now)

### Publications (5 years)

1. Chen, J.-Y., Kuo, Y.-C., Wu, K.-J., Wang, S.-M., Chen, Y.-C., **Tsai, P.-J.\***, Techniques for predicting exposures of polycyclic aromatic hydrocarbons (PAHs) emitted from cooking processes for cooking workers. *Aerosol and Air Quality Research*, 2019, In press.
2. Lin, C.-Y., **Tsai, P.-J.**, Lin, K.-Y., Chen, C.-Y., Chung, L.-H., Wu, J.-L., Guo, Y.-L., Will daytime occupational noise exposures induce nighttime sleep disturbance? *Sleep Medicine*, 2018, 50: 87-96.
3. Lin, M.-Y., Guo, Y.-X., Chen, Y.-C., Chen, W.-T., Young, L.-H., Lee, K.-J., Wu, Z.-Y., **Tsai,**

- P.-J.\***, An instantaneous spatiotemporal model for predicting traffic-related ultrafine particle concentration through mobile noise measurements. *Science of The Total Environment*, 2018, 636: 1139-1148
4. Wang, Y.-F., Wang, S.-M., Kuo, Y.-C., Yoon, C., Wang, Y.-F., **Tsai, P.-J.\***, Long-term multiple chemical exposure assessment for a thin film transistor liquid crystal display (TFT-LCD) Industry. *Aerosol and Air Quality Research*, 2017, 17: 2891–2900.
  5. Jung, C.-R., Young, L.-H., Hsu, H.-T., Lin, M.-Y., Chen, Y.-C., Hwang, B.-F., **Tsai, P.-J.\***, PM<sub>2.5</sub> components and outpatient visits for asthma: A time-stratified case-crossover study in a suburban area. *Environmental Pollution*, 2017, 231:1085-1092.
  6. Chen, W.-Y., Juang, Y.-J., Hsieh, J.-Y., **Tsai, P.-J.\***, Chen C.-P., Estimation of Respiratory Heat Flows in Prediction of Heat Strain among Taiwanese Steel Workers. *International Journal of Biometeorology*, 2017, 61: 115–125.
  7. Ham, S., Kim, S., Lee, N., Kim, P., Eom, P., Eom, I., Lee, B., **Tsai, P.-J.**, Lee, K., Yoon, C., Comparison of Data Analysis Procedures for Real-time Nanoparticle Sampling Data Using Classical Regression and ARIMA Models. *Journal of Applied Statistics*, 2017, 44: 685-699.
  8. Ham, S., Lee, N., Eom, I., Lee, B., **Tsai, P.-J.**, Lee, K., Yoon, C., Comparison of Real Time Nanoparticle Monitoring Instruments in the Workplaces. *Safe Health Work*. 2016, 7: 381–388.
  9. Park, J., Kang, T., Jin, S., Heo, Y., Kim, K., Lee, K., **Tsai, P.-J.**, Yoon, C., Asphyxiation Incidents by Hydrogen Sulfide at Manure Storage Facilities of Swine Livestock Farms in Korea. *Journal of Agromedicine*, 2016; 21:144-148.
  10. Young, L.-H., Li, C.-H., Lin, M.-Y., Hwang, B.-F., Hsu, H.-T., Chen, Y.-C., Jung, C.-R., Chen, K.-C., Cheng, D.-H., Wang, V.-S., Chiang, H.-C., **Tsai, P.-J.\***, Field Performance of a Semi-continuous Monitor for Ambient PM<sub>2.5</sub> Water-soluble Inorganic Ions and Gases at a Suburban Site. *Atmospheric Environment*, 2016, 144: 376-388.
  11. Chen, Y.-C., Kuo, Y.-C., Chen, M.-R., Lin, M.-Y., Wang, Y.-F., Chen, C.-H., Yoon, C., **Tsai, P.-J.\***, Reducing PCDD/F emissions from a real-scale iron ore sinter plant by adjusting its sinter raw mix. *Journal of Cleaner Production*. 2016, 112: 1184–1189.
  12. Wu, W.T., Lin, Y.-J., Li, C.-Y., **Tsai, P.-J.**, Yang, C.-Y., Liou, S.-H., Wu, T.-N., Pershouse, M.A., Cancer Attributable to Asbestos Exposure in Shipbreaking Workers: A Matched-Cohort Study. *PLoS ONE*, 2015  
(<http://dx.doi.org/10.1371/journal.pone.0133128>)
  13. Chen, Y.-C., Hsu, C.-K., Wang C. C., **Tsai, P.-J.**, Wang, C.-Y., Chen, M.-R., Lin, M.-Y.,

Particulate Matter Exposure in a Police Station Located near a Highway. *International Journal of Environmental Research and Public Health*, **2015**, 12(11), 14541-14556. (SCI; Impact factor= 2.063; Rank= 96/221 =43.4%; Environ. Sci.; JCR 2014)

14. Kuo, Y.-C., Chen, Y.-C., Lin, M.-Y., Young, L.i-H., Hsu, H.-T., Liou, S.-H., Wu, T.-N., Wang, L.-C, **Tsai, P.-J.\***, Ambient Air Concentrations of PCDD/Fs, Coplanar PCBs, PBDD/Fs, and PBDEs and Their Impacts on Vegetation and Soil. *International Journal of Environmental Science and Technology*, 2015, 12: 2997-3008.
15. Lee, J., Ham, S., Yoon, C., **Tsai, P.-J.**, Optimal Treatment Condition for Changing Characteristics of Naturally Occurring Asbestos. *Aerosol and Air Quality Research*, 2015, 15: 2332–2345.
16. Ham, S., Kim, S., Lee, Naroo, Kim P., Eom, I., Lee, K., **Tsai, P.-J.**, Yoon, C., Comparison of Nanoparticle Exposure Levels Based on Facility Type—Small-Scale Laboratories, Large-Scale Manufacturing Workplaces, and Unintended Nanoparticle-Emitting Workplaces. *Aerosol and Air Quality Research*, 2015, 15: 1967-1978.
17. Kim, Y., Yoon, C., Ham, S., Park, J., Kim S., Kwon, O., **Tsai, P.-J.**, Emissions of Nanoparticles and Gaseous Material from 3D Printer Operation. *Environmental Science & Technology*, 2015, 49: 12044–12053
18. Chen, W.-Y., Lo, C.-L., Chen C.-P., Juang Y.-J., Yoon, C., **Tsai, P.-J.\***, Prioritizing Factors Associated with Thermal Stresses Imposed on Workers in Steel and Iron Casting Industries Using the Monte Carlo Simulation and Sensitivity Analysis. *Journal of Occupational Health*, 2014, 56: 505–510.
19. Chen, C.-H., Soo, J.-C., Wu, T.-N., Yoon, C., Lai, C.-Y., **Tsai, P.-J.\***, Effect of the quartz particle size on XRD quantifications and its implication to field collected samples. *Aerosol and Air Quality Research*, 2014, 14: 1573–1583.
20. Hsu, H.-I, Lin, M.-Y., Chen, Y.-C., Chen, W.-I, Yoon, C., Chen, M.-R., **Tsai, P.-J.\***, An Integrated Approach to Assess Exposure and Health-risk from Polycyclic Aromatic Hydrocarbons (PAHs) in a Fastener Manufacturing Industry. *International Journal of Environmental Research and Public Health*, 2014, 11: 9578–9594.
21. Wu, W.-T., Lin, Y.-J., Shiue, S.-H., Li, C.-Y., **Tsai, P.-J.**, Yang, C.-Y., Liou, S.-H., Wu, T.-N., Cancer incidence of Taiwanese shipbreaking workers who have been potentially exposed to asbestos. *Environmental Research*, 2014, 132: 370–378.
22. Jung, H., Kim, J., Lee, S., Lee, J., Kim, J., **Tsai, P.-J.**, Yoon, C., Comparison of Filtration Efficiency and Pressure Drop in Anti-Yellow Sand Masks, Quarantine Masks, Medical Masks, General Masks, and Handkerchiefs. *Aerosol and Air Quality Research*, 2014, 14: 991–1002.
23. Park, J., Lee, L., Byun., H., Ham, S., Lee, I., Park, J., Rhie, K., Lee, Y., Yeom, J., **Tsai,**

- P.-J.**, Yoon, C., A study of the volatile organic compound emissions at the stacks of laboratory fume hoods in a university campus. *Journal of Cleaner Production*, 2014, 66: 10–18.
24. Chen, J.-L., Yang, W.-D., **Tsai, P.-J.\***, Wang, S.-M., Chen, C.-H., A sampling and analytical method for simultaneously assessing multiple organic solvent exposures to plastic material printing industry workers. *Aerosol and Air Quality Research*, 2013, 13: 1504–1511.
25. Wang, S.-M., Wu, T.-N., Juang, Y.-J., Dai, Y.-T., **Tsai, P.-J.\***, Chen, C.-Y., Developing a semi-quantitative occupational risk predicting model for chemical exposures and its application to a national chemical exposure databank. *International Journal of Environmental Research and Public Health*, 2013, 10: 3157-3171
26. Chen, C.-H., **Tsai, P.-J.**, Wang, W.-C., Pan, C.-H., Ho, J.-J., Guo, Y.-L., Obliterative bronchiolitis in workers laying up fiberglass-reinforced plastics with polyester resin and methylethyl ketone peroxide catalyst. *Occupational and Environmental Medicine*, 2013, 70: 675-676
27. Cullinan, P., McGavin, C.R., Kreiss, K., Nicholson, A.G., Maher, T.M., Howell, T., Banks, J., Taylor, A.J.N., Chen, C.-H., **Tsai, P.-J.**, Shih, T.-S., Burg, P.S., Obliterative bronchiolitis in fibreglass workers: a new occupational disease? *Occupational and Environmental Medicine*, 2013, 70: 357–359.
28. Young, L.-H., Lee, S.-H., Kanawade, V. P., Hsiao, T.-C., Lee, Y. L., Hwang, B.-F., Liou, Y.-J., Hsu, H.-T., **Tsai, P.-J.\***, New particle growth and shrinkage observed in subtropical environments. *Atmospheric Chemistry and Physics*, 2013, 13: 547–564.
29. Young, L.-H., Lin, Y.-H., Lin, T.-H., **Tsai, P.-J.\***, Wang, Y.-F., Hung, S.-M., Tsai, C.-J., Chen, C.-W., Field application of a newly developed personal nanoparticle sampler to selected metalworking operations. *Aerosol and Air Quality Research*, 2013, 13: 849–861.