Sheng-Chieh Chen

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Professional Preparation

TamKang University	Water Resource and Environmental Engineering	BS	1999
National ChiaoTung University	Environmental Engineering	Ph.D.	2006

Appointments

2017 -	Assistant Professor, Mechanical and Nuclear Engineering, Virginia Commonwealth University
2013 - 2016	Lab Manager, Particle Technology Laboratory, University of Minnesota
2011 - 2012	Postdoctoral, Particle Technology Laboratory, University of Minnesota
2010 - 2011	Adjunct Assistant Professor, Environmental Engineering, National ChiaoTung University
2007 - 2009	Postdoctoral, Environmental Engineering, National ChiaoTung University

Professional Activities and Awards

2016	MIC-PARTICUOLOGY Excellent Article Award
2015 - 2017	A. O. Smith Corp., project consultant
2015 - 2016	3M Company, China, project consultant
2014 - 2017	Mott Corp., project consultant
2014 - 2016	Member, Control Technology Workgroup Committee for American Association for Aerosol Research, 2014
2013 - 2017	Member, Co-PI of CEN/TC 195/WG 6, Execution of Mandate M/461 of European Union, Jan. 2013
2012	KLA-Tencor Corp., project consultant
2007	Best paper award, Chinese Institute of Environmental Engineering
2006	Best Technical Paper Award, CAART

Selected Peer-Reviewed Publications and Patents

- Approx. 70 publications including 1 book chapter, 62 papers in refereed journals, and 6 final research project reports.
- Five patents granted, three pending.
- Developer/Co-developer of two commercial aerosol samplers.

Five Most Closely Related Publications (out of 60 total journal papers and 8 patents)

1. Li, S., Chen, D.-R., Zhou, F., Chen, S.-C.*. (2020). Effects of relative humidity and particle hygroscopicity on the initial efficiency and aging characteristics of electret HVAC filter media, Building and Environment, 171 (2020) 106669.
2. Tien, C.-Y., Chen, J.-P., Li, S., Li, Z., Zheng, Y.-M., Peng, A. S., Zhou, F., Tsai, C.-J., Chen, S.-C.*. (2020). Experimental and theoretical analysis of loading characteristics of different electret media with various properties toward the design of ideal depth filtration for nanoparticles and fine particles, Separation and Purification Technology, 233, 116002.

3. Chang, D.Q., Tien, C.Y., Peng, C.Y., Tang, M., Chen, S.-C.* (2019). Development of composite filters for high efficiency, low pressure drop, and high holding capacity PM2.5 filtration, Separation and Purification Technology, 212:699-708.
4. Chang, D.Q., Chen, S.-C.*, Pui, D.Y.H. (2016). Capture of Sub-500 nm Particles Using Residential Electret HVAC Filter Media-Experiments and Modeling, Aerosol and Air Quality Research, 16: 3349-3357.Pui, D.Y.H., S. Chen and Z. Zuo, "PM2.5 in China: Measurements, Sources, Visibility and Health Effects, and Mitigation – A Review and Perspective Article," Journal of Particuology 13(2014) 1-26. (Won 3rd MIC-Particuology Excellence Article Award; 120 citations within 2 years).
5. Pui, D.Y.H., Chen, S.-C., Zuo, Z. (2014). $PM_{2.5}$ in China: Measurements, Sources, Visibility and Health Effects, and Mitigation – *A Review and Perspective Article*. Particuology, 13:1-26.

Five Other Significant Publications

1. Chen, S.-C.*, Tang, M., Kuehn, T. H., Lo, C.S., Zhao, D., Xie, X., Sun, J., Cao, Q., Pui, D.Y.H. (2020). Design of a rain-shower based cleaning system for simultaneous PM2.5 removal and CO2 capture of ambient air, Separation and Purification Technology, 237:116389.
2. Wang, Q., Yildiz, O., Li, A., Aly, K., Qiu, Y., Jiang, Q., Pui, D.Y.H., Chen, S.-C.*, Bradford, P.D.* (2020). High temperature carbon nanotube – nanofiber hybrid filters, Separation and Purification Technology, 236:116255.
3. Kang, S., Lai, W.-T., Chen, S.-C.*, Pui, D.Y.H. (2018). Measurement of dispersity of ISO A2 fine dusts by shadowgraph method. Separation and Purification Technology, 323: 186-194.
4. Chen, Sheng-Chieh, Chuen-Jinn Tsai, Charles C.K. Chou, Sen-Sung Cheng, and Ya-Nan Wang. (2010). Ultrafine particles at three different sampling locations in Taiwan, Atmospheric Environment. 44:533-540.
5. Chen, Sheng-Chieh, Chuen-Jinn Tsai, Cheng-Yu Huang, Hong-Dar Chen, Shui-Jen Chen, Chih-Chung Lin, Jen-Hsiung Tsai, Charles C.K. Chou, S.-C. Candice Lung, Wei-Ru Huang, Gwo-Dong Roam, Wan-Yi Wu, Jiri Smolik, and Lucie Dzumbova. (2010). Chemical Mass Closure and Chemical Characteristics of Ambient Ultrafine Particles and other PM Fractions in a Highway Tunnel and at a Roadside, Aerosol Science and Technology, 44:713–723.

Synergistic Activities

- Invited speaker at technical session of indoor air quality in ASF Conference in 2017-2019.
- ASHRAE working group TC 2.4 (Particulate Air Contaminants and Particulate Contaminant Removal Equipment)