

空氣毒物與水質研究室(EP101)

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近年重要研究成果(2018~2023)

Chih-Chung Lin, Jen-Hsiung Tsai, Yi-Chin Hsieh, **Shui-Jen Chen***, (2023, Apr). Beehive Fireworks Festival Effect on the Nearby Atmospheric PM_{2.5} Level. *Aerosol and Air Quality Research*, 23, No.220389. <https://doi.org/10.4209/aaqr.220389>.

Sheng-Lun Lin*, Zhefeng Guo, **Shui-Jen Chen**, Wei Tang, Shih-Wei Huang (2022, Mar). Use of hydrous ABE-glycerin-diesel microemulsions in a nonroad diesel engine – Performance and unignorable emissions. *Chemosphere*, 290, No. 133244. <https://doi.org/10.1016/j.chemosphere.2021.133244>

Jen-Hsiung Tsai, **Shui-Jen Chen***, Sheng-Lun Lin, Zheng-You Xu, Kuo-Lin Huang, Chih-Chung Lin (2021, Mar). Chemical characterization of water-soluble ions and metals in particulate matter generated by a portable two-stroke gasoline engine. *Aerosol and Air Quality Research*, Vol. 21, Iss. 3, No.200632. <https://doi.org/10.4209/aaqr.200632>

Ta-Chih Hsiao, Hsiao-Chi Chuang, Stephen M. Griffith, **Shui-Jen Chen**, Li-Hao Young* (2020, May). COVID-19: An Aerosol's Point of View from Expiration to Transmission to Viral-mechanism. *Aerosol and Air Quality Research*, 20(5), 905–910.

Jen-Hsiung Tsai, Yue-Rou Chen, **Shui-Jen Chen***, Sheng-Lun Lin, Kuo-Lin Huang, Chih-Chung Lin, Juei-Yu Chiu (2020, Mar). Characteristics of emissions from a portable two-stroke gasoline engine. *Aerosol and Air Quality Research*, 20(3), 630–642. MOST 107-2221-E-020-001.

Jen-Hsiung Tsai, **Shui-Jen Chen***, Sheng-Lun Lin, Kuo-Lin Huang, Cheng-Kai Hsueh, Chih-Chung Lin, Po-Min Li (2019, Jun). Emissions of PM_{2.5}-bound polycyclic aromatic hydrocarbons and metals from a diesel generator fueled with biodiesel converted from used cooking oil. *Aerosol and Air Quality Research*, 19(7), 1555–1565. MOST 104-2221-E-020-003-MY3.

Jen-Hsiung Tsai, **Shui-Jen Chen***, Po-Min Li, Guo-Ping Chang-Chien, Kuo-Lin Huang, Cheng-Hung Tsai, Chi-Ying Hsieh, Chih-Chung Lin (2018, Oct). Characteristics of PM_{2.5}-bound PCDD/Fs, PCBs, PBDD/Fs and PBDEs from a Diesel Generator Using Waste Cooking Oil-based Biodiesel Blends. *Aerosol and Air Quality Research*, 18(10), 2583-2590. MOST 104-2221-E-020-003-MY3.

Jen-Hsiung Tsai, Sheng-Lun Lin, **Shui-Jen Chen***, Cio-Jhen Guo, Kuo-Lin Huang, Jia-Twu Lee, Kuei-Jyum C. Yeh, Juei-Yu Chiu, Chih-Chung Lin (2018, May). Emission characteristics of particulate matter and particle-bound metals from a diesel engine generator fueled with waste cooking oil-based biodiesel blended with *n*-butanol and acetone. *Aerosol and Air Quality Research*, 18(5), 1246–1254. MOST 104-2221-E-020-003-MY3.



實驗室採樣分析設備



PQ200 細懸浮微粒 (PM_{2.5})採樣器



DICHOT 分道採樣器



離子層析儀 (Dionex ICS-3000)



MOUDI 微孔均勻沉積衝擊器