

Supporting Information

Title: Transport and Mitigation of Exhaled Electronic Cigarette Aerosols in a Multizone Indoor Environment

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S1. AER Calculation using CO₂ Tracer Gas Decay Method

AER was calculated by the CO₂ decay method using the TSI Q-Trak. In aerosol laboratory rooms where the average CO₂ levels were below 400 ppm, CO₂ gas was injected into the room (using dry ice) until indoor concentration reached ~2000 ppm. The fan was turned on to create a well-mixed condition. Then CO₂ decayed to background level (~400 ppm). The outdoor CO₂ was measured by another TSI Q-Trak at the same time and the average was used in AER calculation. The equation used to calculate AER (λ) was:

$$-\ln\left(\frac{C_t - C_{out}}{C_0 - C_{out}}\right) = \lambda t \quad (1)$$

where C_t = CO₂ concentration as a function of time; C_{out} = outdoor CO₂ concentration; C_0 = initial CO₂ concentration; λ = AER (h⁻¹); and t = time (hr).

S2. Results from Nano Water-based Condensation Particle Counter (N-WCPC) and DiSCmini collocation tests

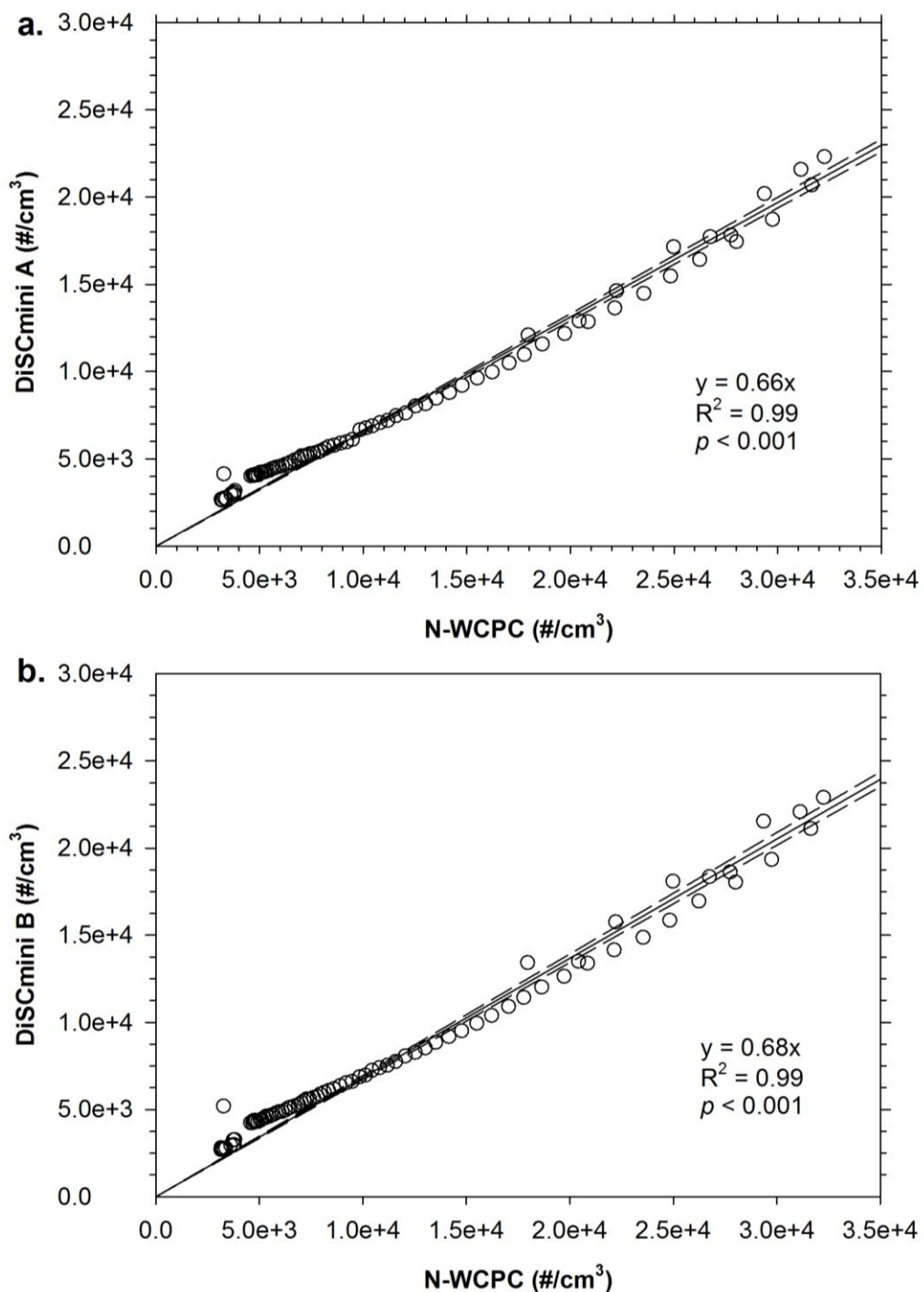


Figure S1. Collocation of Nano Water-based Condensation (N-WCPC) with (a) DiSCmini A and (b) DiSCmini B. Dotted lines represent 95% confidence intervals.

S3. Results from DustTrak II collocation tests

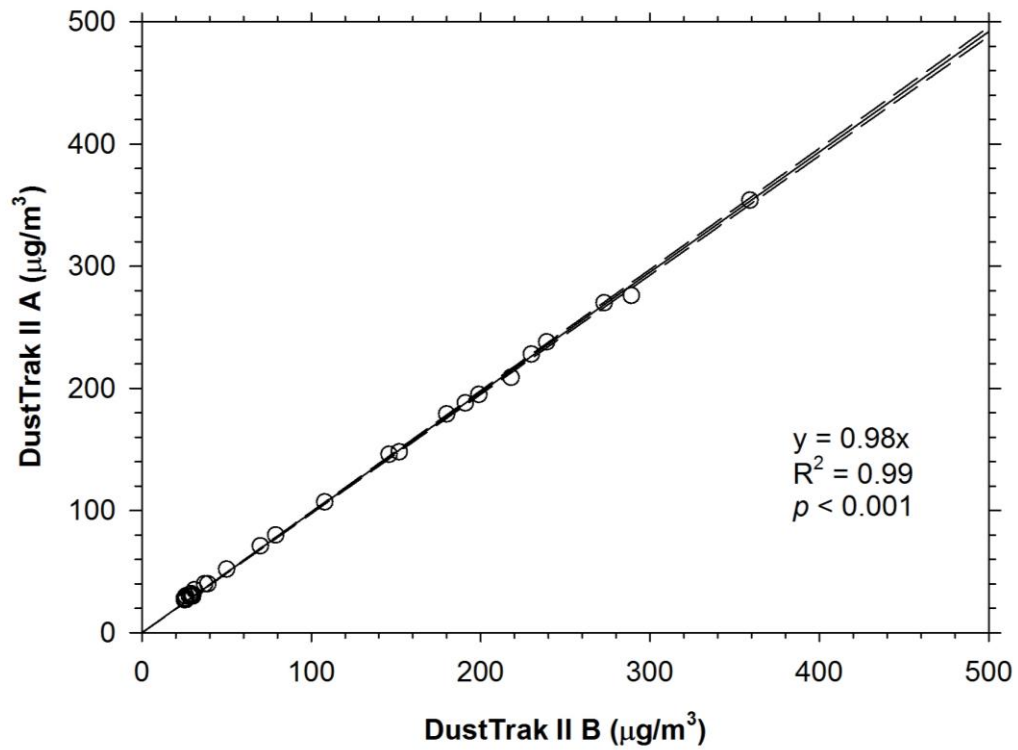


Figure S2. Collocation of DustTrak II B with DustTrak II A. Dotted lines represent 95% confidence intervals.