Supporting Information

Solvent and Temperature Effects on Free Radical Formation in Electronic Cigarette Aerosols

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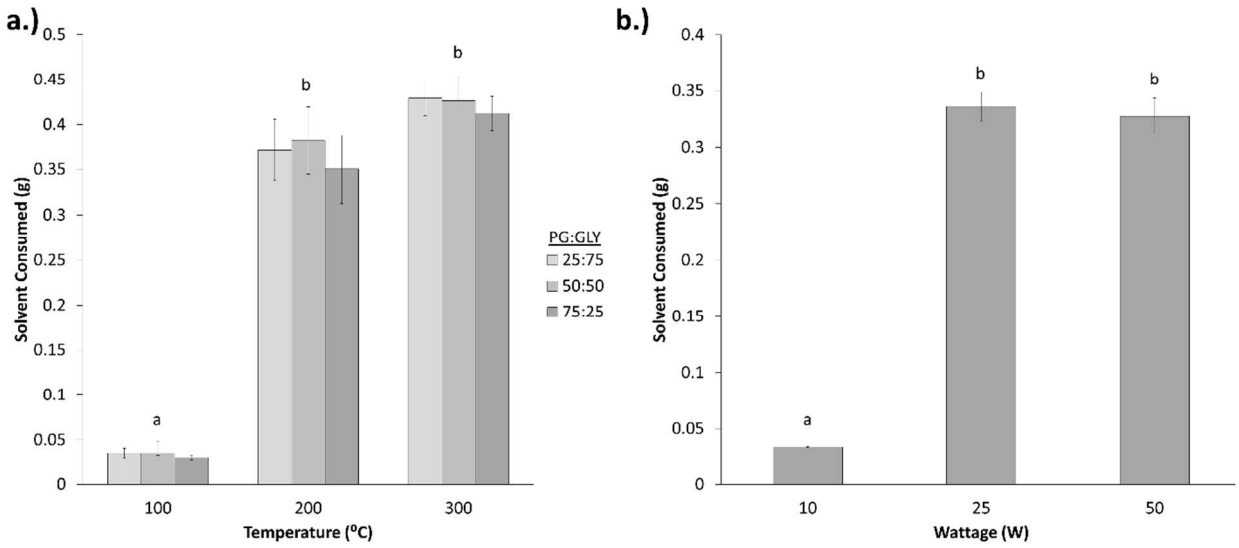

Figure S1. Effects of constant temperature and constant wattage on solvent consumption. a.) Solvent consumption under constant temperature mode at different temperatures and different solvent compositions. b.) Solvent consumption of 75:25 (PG:GLY) under constant wattage mode. Different letters indicate significantly different values between temperatures and wattages only. No significant differences were found as a result of the PG:GLY ratio.

To examine the effects of aerosol production as a result of temperature and PG:GLY solvent ratios, we measured the cartomizers before and after each vaping session. Under constant

temperature mode, solvent consumption between different PG:GLY ratios were not significant within each temperature. **(Figure S1 a)** Significant differences were seen when comparing the solvent consumption at 100°C to the consumption at 200°C and 300°C. There were no significant differences between 200°C and 300°C. Under constant wattage modes, consumption of the 75:25 (PG:GLY) solvent was measured and showed no significant differences in solvent consumption between the 25W and 50W measurement. **(Figure S1 b)** The consumption at 10W was significantly less than the consumptions at 25W and 50W.

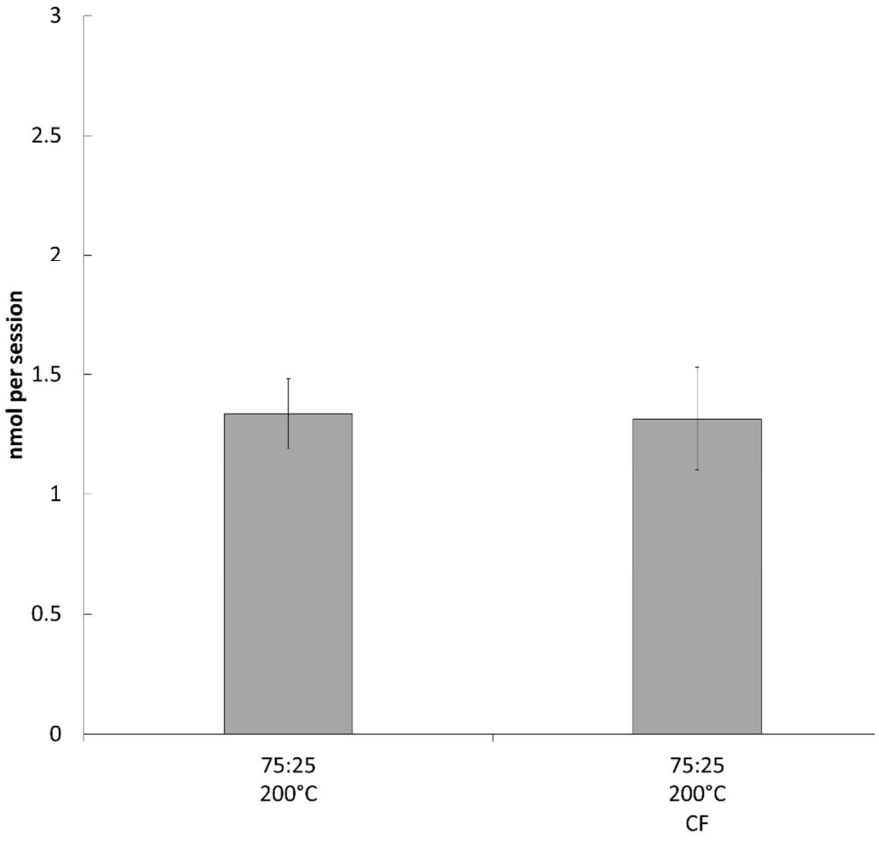

Figure S2. Effect of blocking aerosols on radical production. Radicals were generated from a 75:25 (PG:GLY) e-liquid solvent at 200°C and passed through a Cambridge filter (CF) to examine free radicals found only in the gas phase. There were no significant differences between the CF sample or the unfiltered sample.

With a Cambridge filter inline, aerosols were blocked but no change in free radical production was seen. This supports the idea that the free radicals are found mainly in the gas phase.