

Table S1 Aerosol generation conditions (electrical power and number of puffs) and mean(SD) liquid aerosolized and CC yields in 15puffs (N=3)

Power (W)	15	31	50	60	70	80
Number of puffs	15	15	2	2	2	2
Liquid vaporized (mg/15 puffs)	46.7(2.36)	277.17(36.44)	463.5(24.06)	579.75(36.16)	629.25(73.03)	740(40.7)
Nicotine concentration ^a	40.09(1.96)	6.75(0.87)	4.04(0.2)	3.23(0.19)	2.97(0.34)	2.53(0.13)
Carbonyl compounds (µg/15 puffs)						
Formaldehyde	0.56(0.21)	0.47(0.24)	1.71(0.95)	0.94(0.2)	1.23(1.23)	10(12.13)
Acetaldehyde	6.48(1.76)	7.59(3.19)	1.52(2.63)	48.9(84.61)	134.55(184.91)	304.56(330.2)
Acetone	8.71(0.43)	8.95(0.6)	3.05(3.9)	3.83(5.36)	6.87(8.74)	12.9(15.06)
Acrolein	ND	ND	ND	ND	ND	ND
Propionaldehyde	0.52(0.5)	0.8(0.93)	0.48(0.83)	0.88(1.53)	4.52(7.83)	12.97(19.01)
Benzaldehyde	0.1(0.08)	0.1(0.08)	ND	ND	ND	ND
Valeraldehyde	ND	ND	ND	ND	ND	ND
p-tolualdehyde	ND	ND	ND	ND	ND	ND
Hexaldehyde	ND	ND	ND	ND	ND	ND
Glyoxal	0.13(0.07)	0.14(0.02)	1.31(2.27)	2.46(2.13)	2.44(2.12)	2.06(3.56)
Methyl glyoxal	1.69(1.45)	1.8(1.81)	10.69(7.52)	8.37(3.67)	13.18(11.95)	23.37(18.19)
Total carbonyls	21.46(4.14)	23.14(6.81)	18.78(14.68)	65.39(92.84)	162.79(212.54)	365.85(392.29)

^aThese values represent the computed nicotine concentration estimated to produce combustible cigarette-like nicotine yield (1.8mg/cigarette), assuming that the nicotine mass concentration of the aerosol equals that of the parent liquid.