Supporting Information for
Understanding Absorption by Black Versus Brown Carbon in Biomass Burning Plumes from the WE-CAN Campaign

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Figure S1: Plume integrated MAC_{BC660} variations with MCE. Different colors indicate different research flights (RF) and, accordingly, different fires.
Figure S2: Time evolution of plume integrated particle volume mean diameter.

Figure S3: Time evolution of (a) plume integrated toluene:benzene ratio and (b) plume integrated O:C ratio
Figure S4: Box plots of plume integrated toluene:benzene ratio (blue box) and O:C ratio (black box) for each flight. On each box the central line represents the median, the top and bottom edge represents 75% and 25%, the top and bottom whisker represents 90% and 10%. The round dot shows the value which is the closest to the fire source (with smallest physical age).

Figure S5: Plume integrated normalized OA variation with (a) toluene:benzene ratio and (b) O:C ratio. Different colors were used to distinguish plumes from different fire sources. Plumes from uncertain fire sources (especially plumes from RF05, RF08 and RF13) were not included in this plot.
Figure S6: Plume integrated MAC_{BrC+lensing,660} variations with BC:OA ratio

Figure S7: Plume integrated MAC_{BrC+lensing,405} variations with BC:OA ratio