

Supplement of

Combustion controls and plume structure of wildfire aerosol optical properties observed by TROPOMI

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Content:

Figures S1-S6

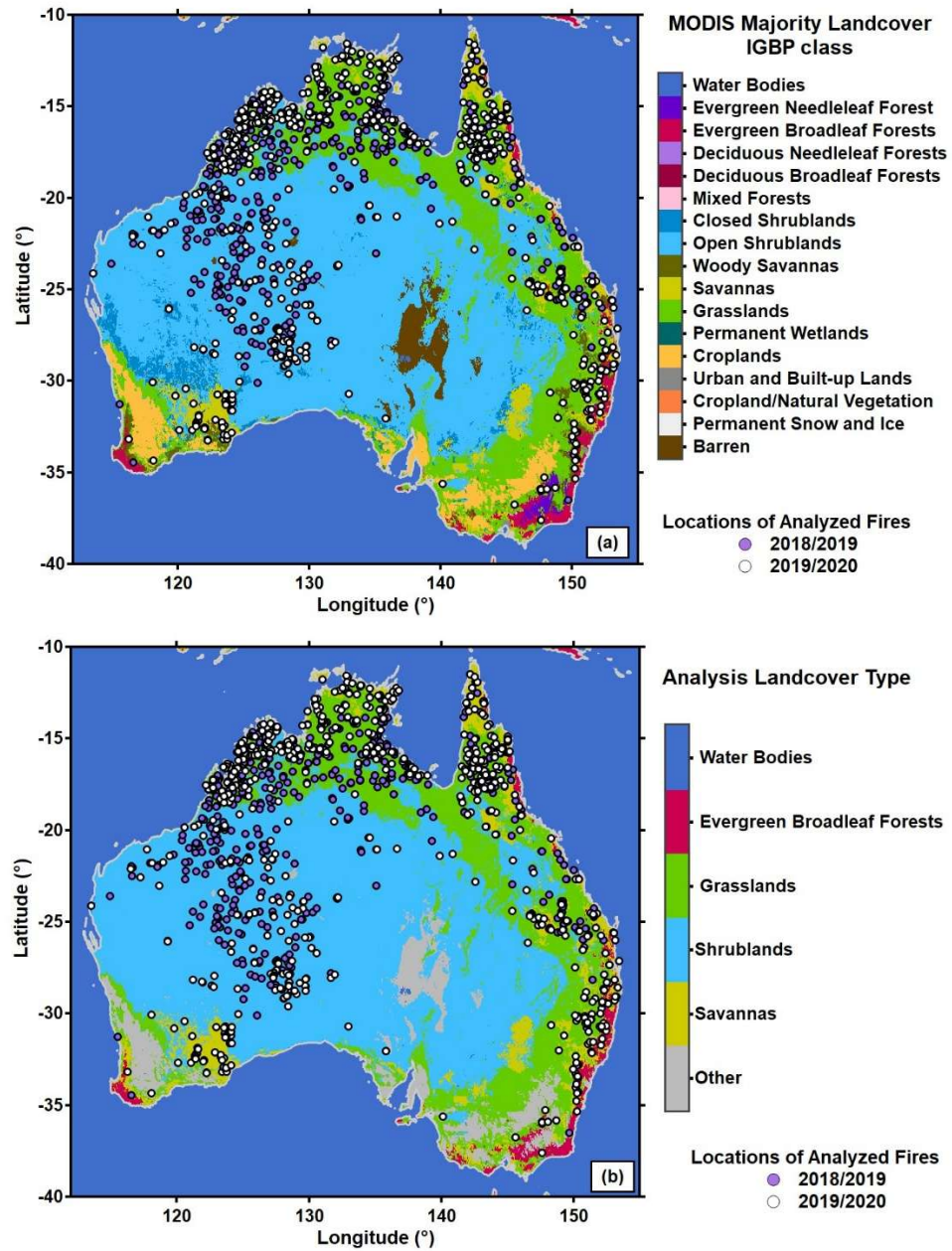


Figure S1: Overview of fire locations for wildfires analyzed in this study plotted on top of the 2019 (a) original MODIS majority land cover IGBP class map and (b) adapted land cover types used in this analysis.

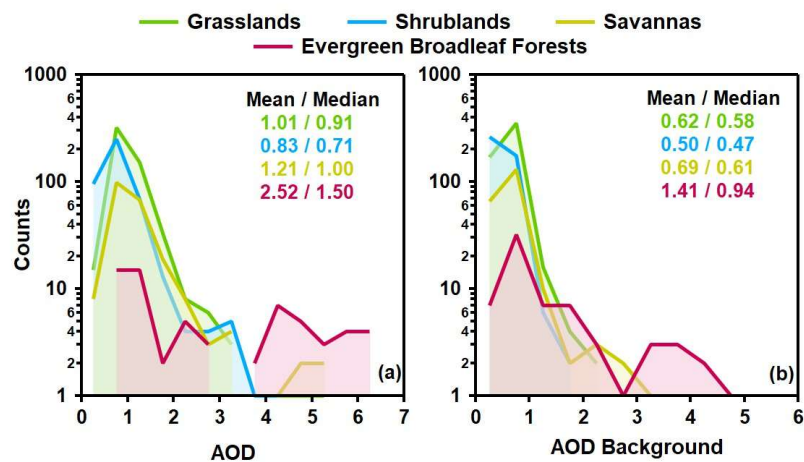


Figure S2: Histograms of (a) plume-averaged total column AOD and (b) background AOD. Note the logarithmic y-axis scale.

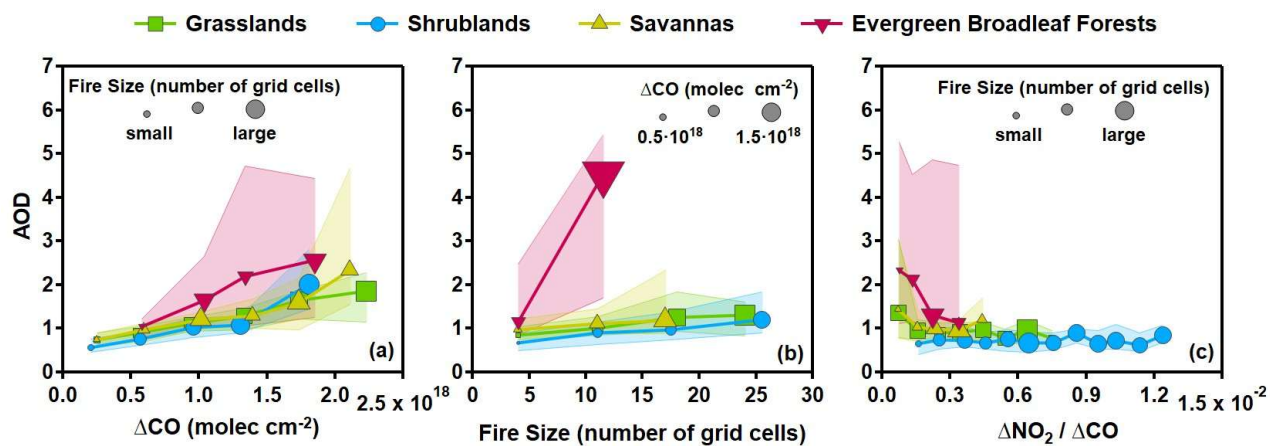


Figure S3: Same as Fig. 5a-c but using total column AOD instead of ΔAOD .

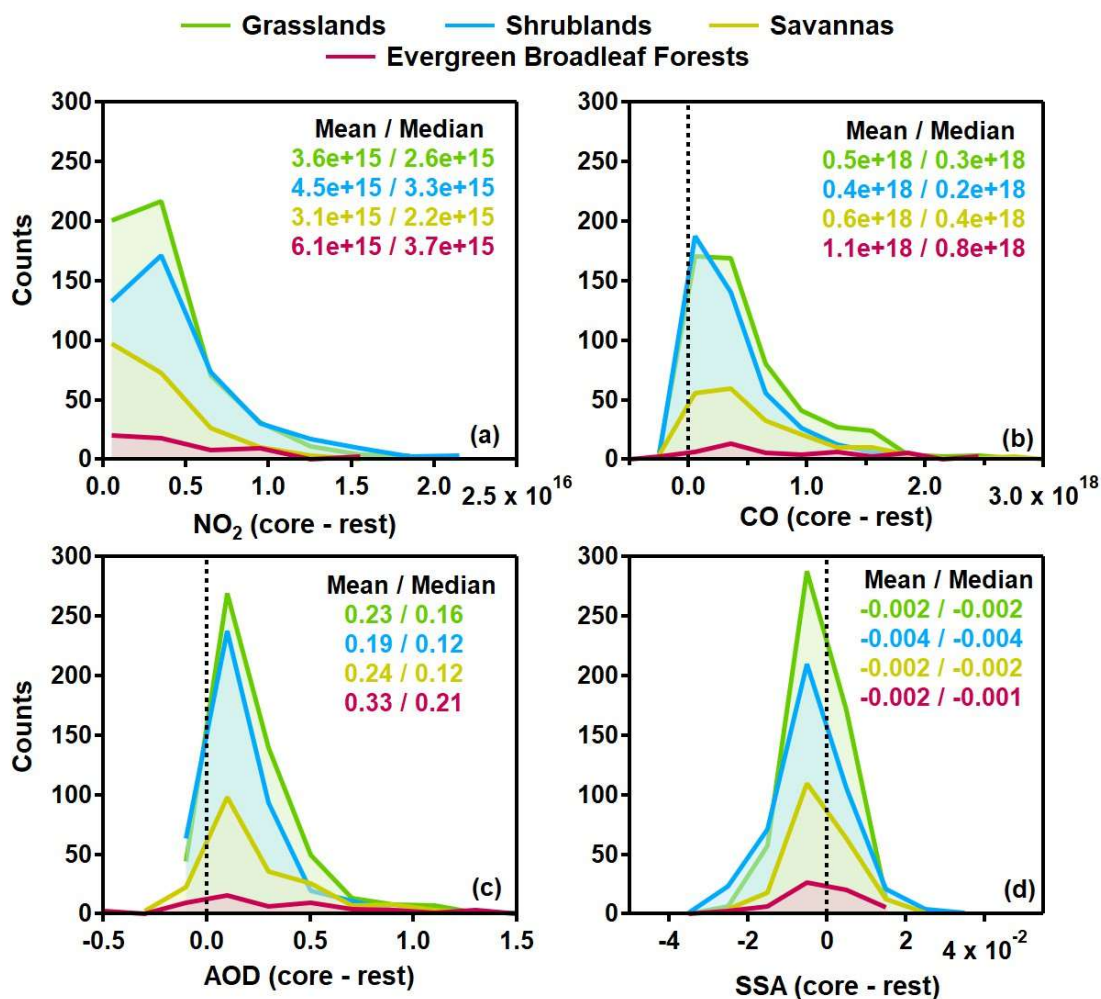


Figure S4: Distributions of plume core-rest differences for (a) NO₂, (b) CO, (c) AOD and (d) SSA.

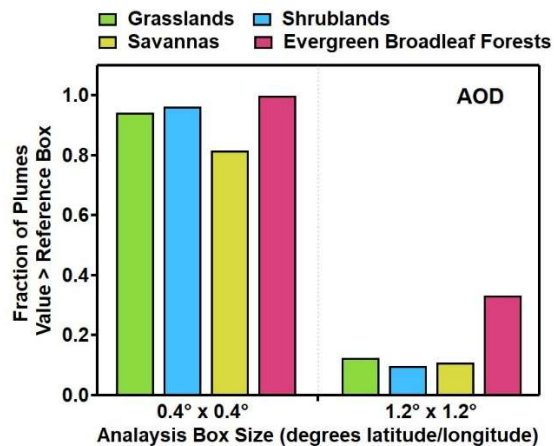


Figure S5: Same as Fig. 6c but using total column AOD instead of Δ AOD.

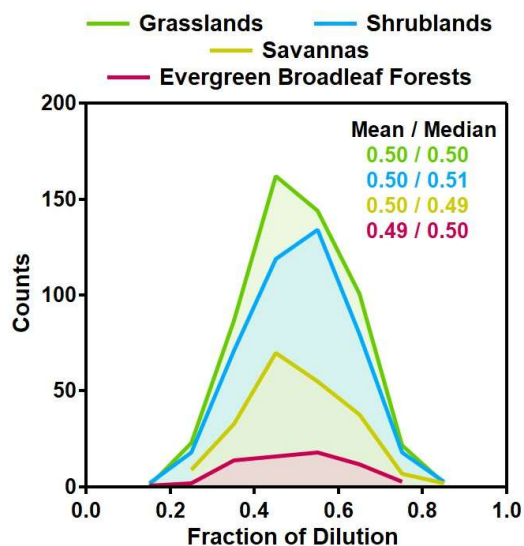


Figure S6: Histogram of CO-based dilution metric, where 1 denotes no dilution and 0 fully diluted.