

Table R1

VOC System	Measurement			VOC System	Measurement				
	Method	Acid	Nitrate		Other	Method	Acid	Nitrate	Other
a-pinene ozonolysis	AMS	0.41	0.00	0.59	naphthalene high Nox	AMS	0.65	0.06	0.29
	Yu et al. (1999)	0.58	0.00	0.42		Kautzman et al. (2009)	0.73	0.07	0.20
a-pinene low Nox	AMS	0.31	0.00	0.69	phenol low Nox	AMS	0.77	0.00	0.23
	FTIR	0.31	0.00	0.69	phenol high Nox	AMS	0.69	0.04	0.27
	Jaoui and Kamens (2001)	0.70	0.00	0.30	guaiacol low Nox	AMS	0.61	0.00	0.39
a-pinene high Nox	AMS	0.33	0.10	0.58		FTIR	0.77	0.00	0.23
	FTIR	0.40	0.19	0.41	guaiacol high nox	AMS	0.70	0.06	0.24
	Jaoui and Kamens (2001)	0.70	0.00	0.30		FTIR	0.82	0.01	0.18
isoprene low Nox	AMS	0.37	0.00	0.63	syringol low Nox	AMS	0.59	0.00	0.41
isoprene high Nox	AMS	0.45	0.09	0.47	syringol high Nox	AMS	0.54	0.04	0.42
toluene low Nox	AMS	0.50	0.00	0.50	acrolein high Nox	AMS	0.54	0.04	0.42
toluene high Nox	AMS	0.42	0.10	0.48	methacrolein high Nox	AMS	0.55	0.04	0.41
m-xylene low Nox	AMS	0.37	0.00	0.63	crotonaldehyde	AMS	0.50	0.03	0.47
m-xylene high nox	AMS	0.36	0.14	0.49					
naphthalene low Nox	AMS	0.72	0.00	0.28					
	Kautzman et al. (2009)	0.82	0.00	0.18					

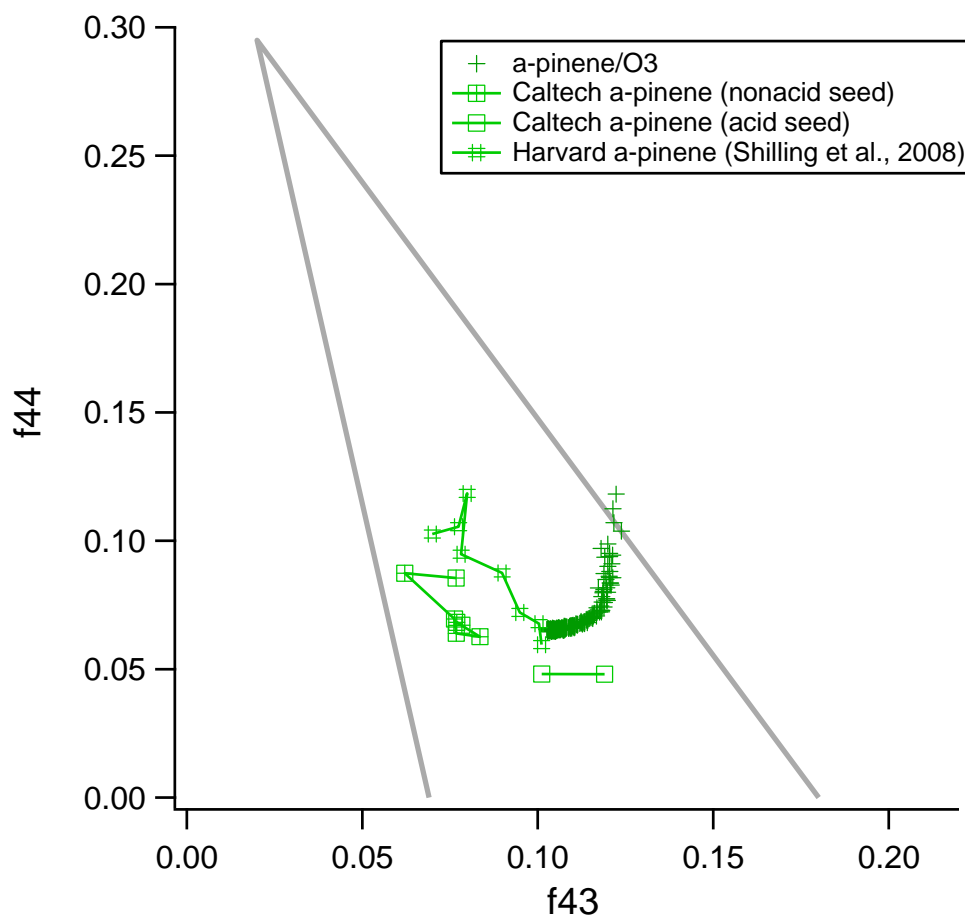


Figure R1: Triangle plot of a-pinene ozonolysis SOA spectra presented in Ng et al. (2010) and this manuscript.

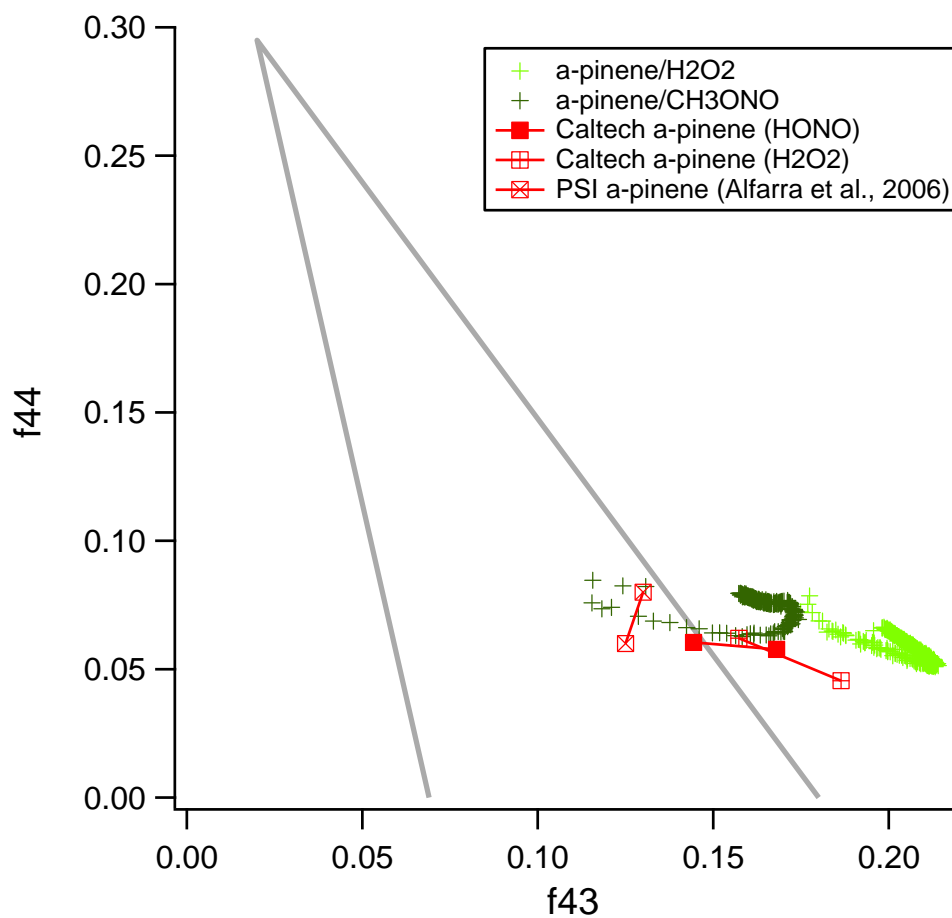


Figure R2: Triangle plot of a-pinene photooxidation SOA spectra presented in Ng et al. (2010) and this manuscript.

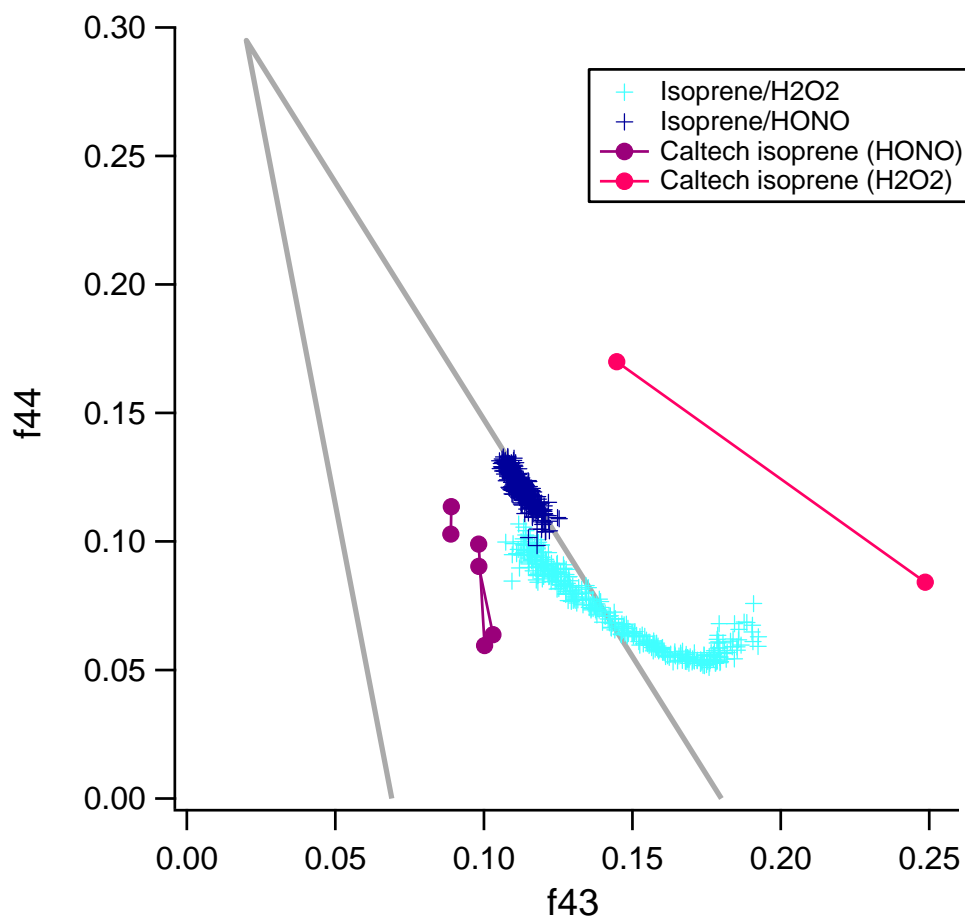


Figure R3: Triangle plot of isoprene photooxidation SOA spectra presented in Ng et al. (2010) and this manuscript

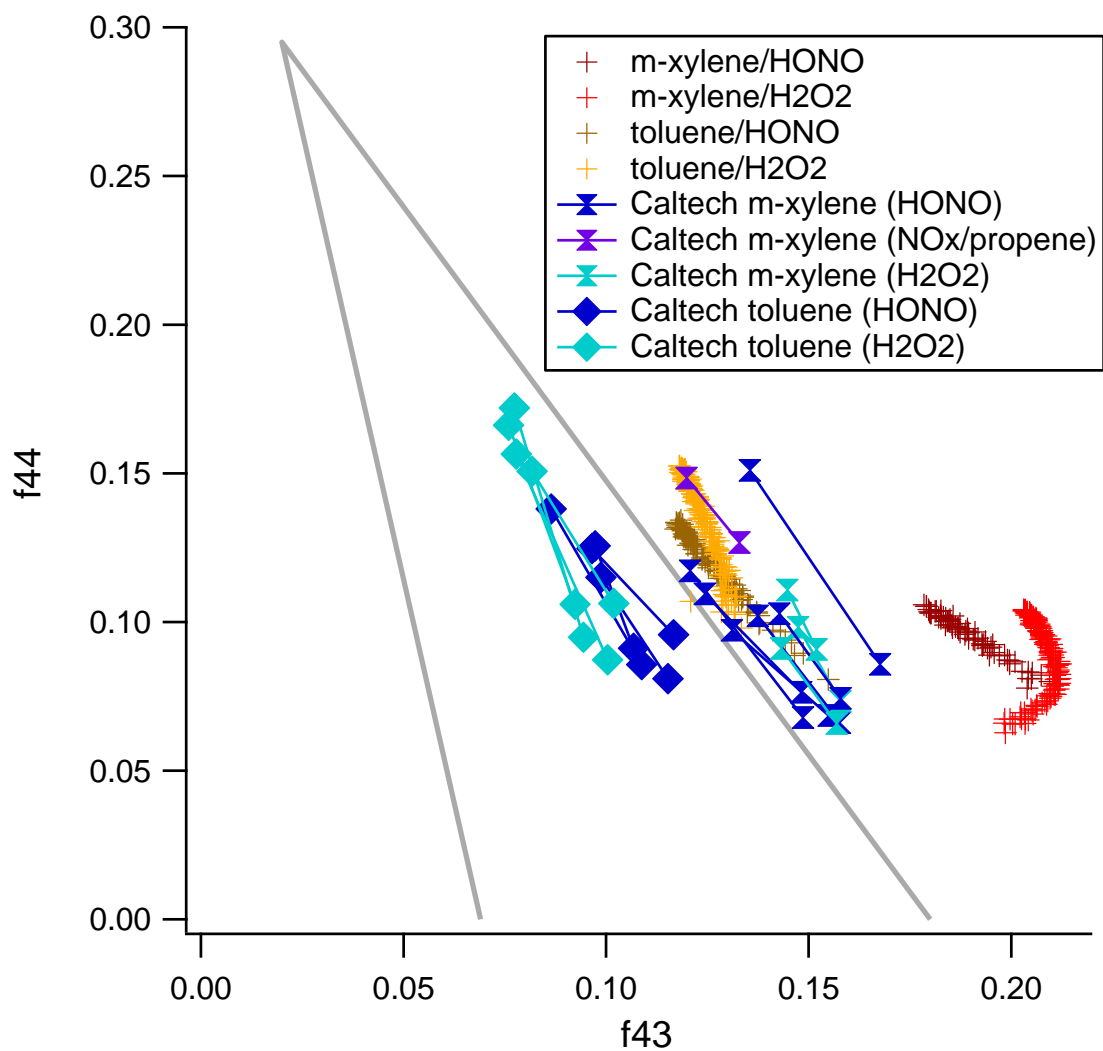


Figure R4: Triangle plot of monoaromatic SOA spectra presented in Ng et al. (2010) and this manuscript

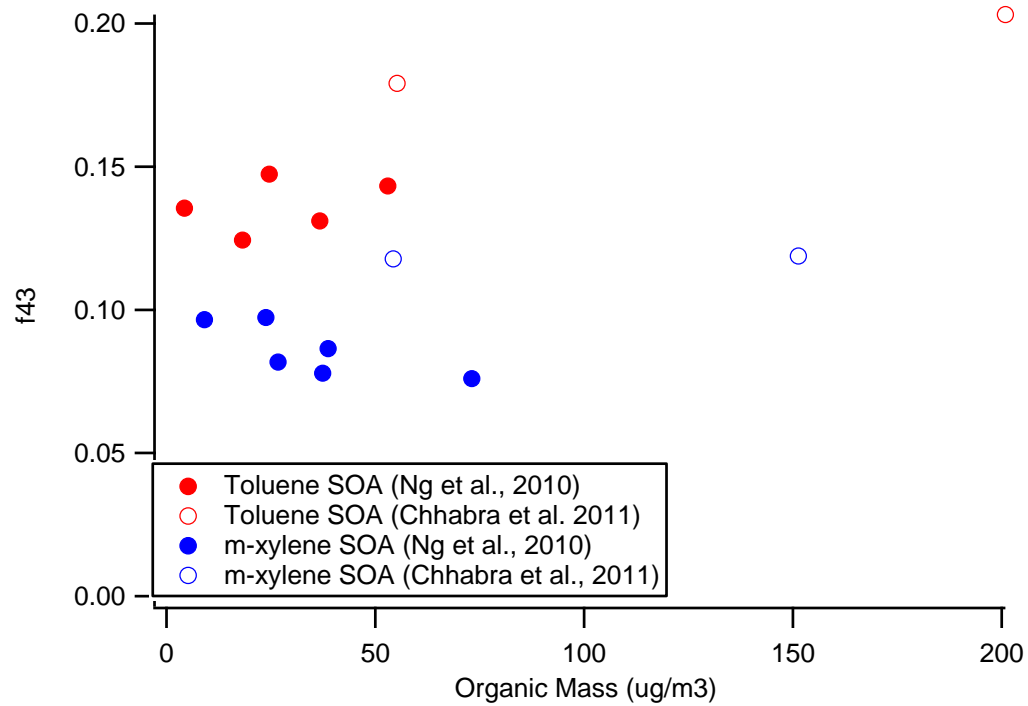


Figure R5: f_{43} as a function of Organic Mass for monoaromatic SOA

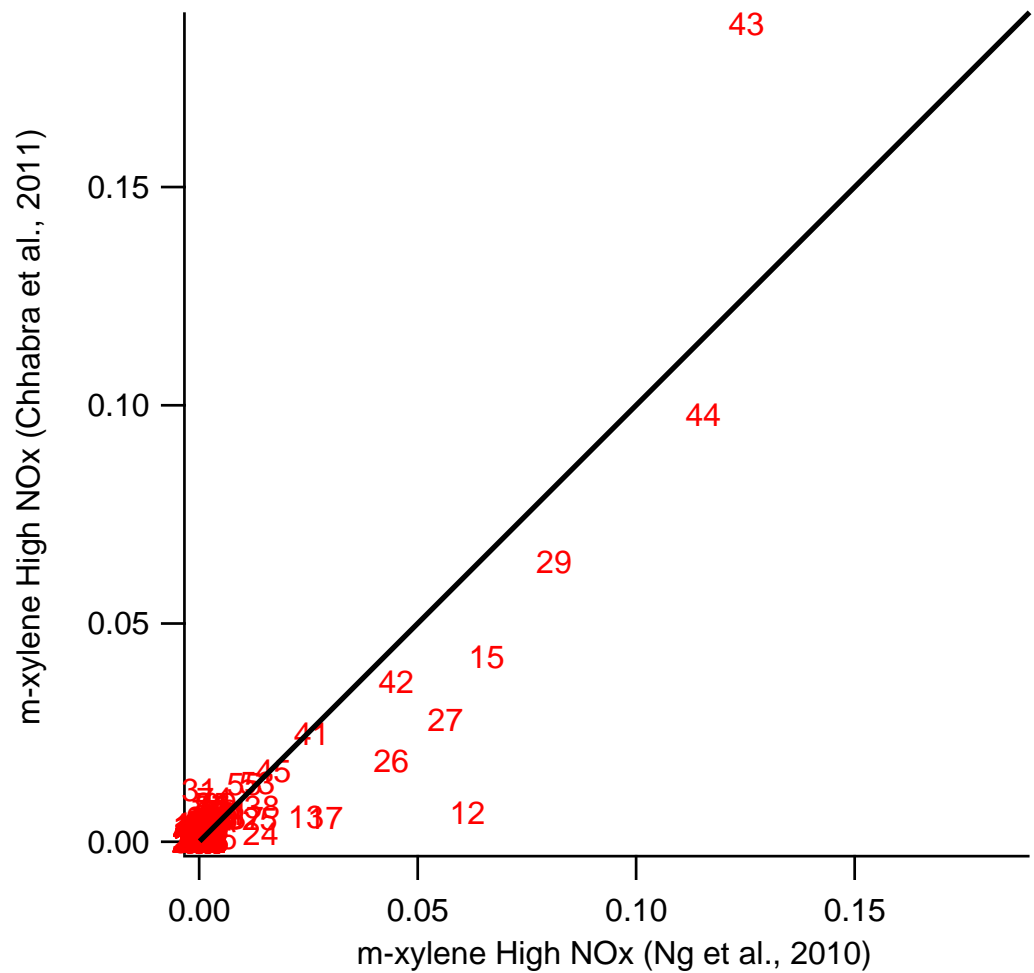


Figure R6: One-to-one plot of m-xylene SOA spectra. Signals at f 18 and f 28 have been removed as they are linearly related to f44