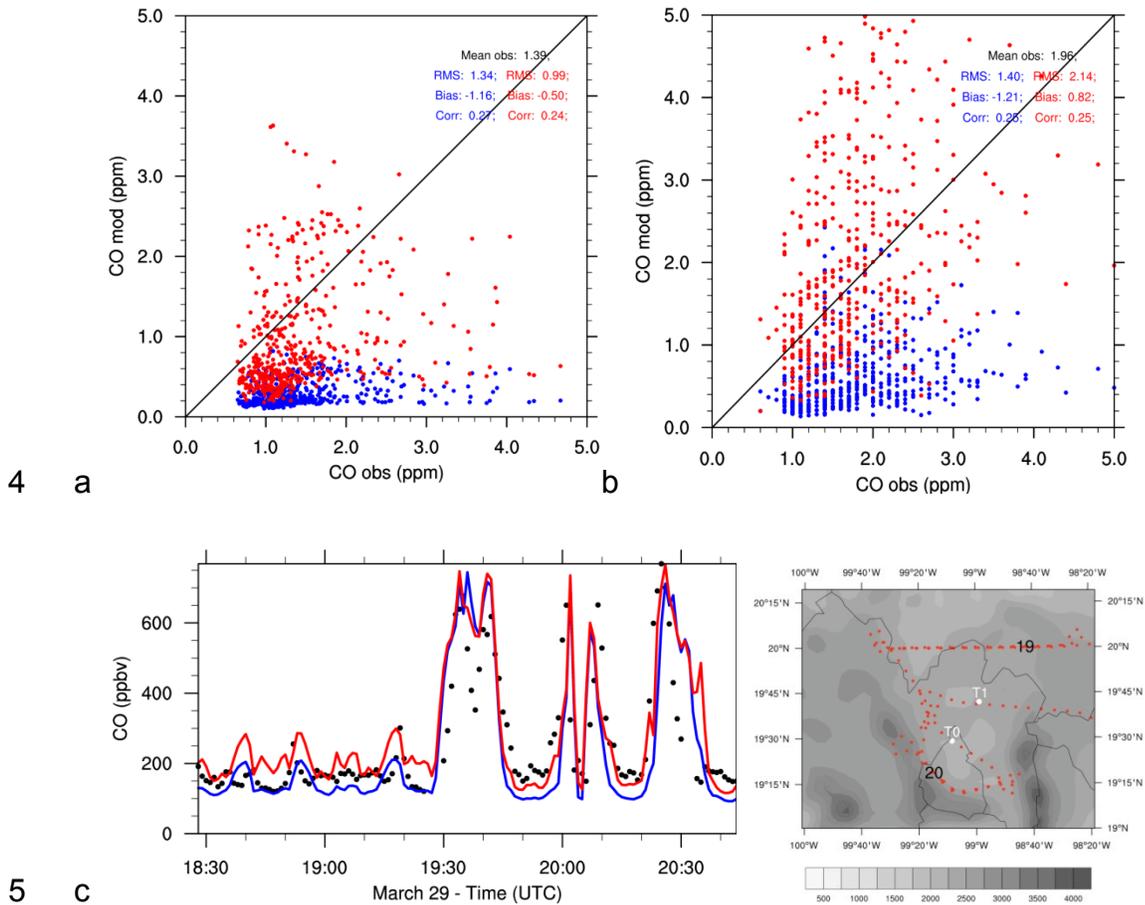


1 Supplementary Information for “Modeling anthropogenically-controlled secondary
2 organic aerosols in a megacity: a simplified framework for global and climate
3 models” by A. Hodzic and J.L. Jimenez



6 SI-Fig 1: Comparisons of observed and predicted CO levels at two cities in Central Mexico and
7 outside of Mexico City, Puebla (a) and Toluca (b), and along the C130 regional flight of March 29,
8 2006 (c). Model results using the default NEI emission inventory are shown in blue, whereas the
9 results using the factor of 5 increased CO regional emissions are displayed in red.

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11 **SI-Table 1: Comparison of the timescales and SOA production between OPT, SPR and ROB-like**
 12 **simulations. OH concentrations are assumed to be equal to the typical Mexico City value of 1.5×10^6**
 13 **molecules cm^{-3} .**

	OPT	SPR	ROB-like
<i>Times scale (days)</i>	0.62	1.54	1.54
<i>Emissions per g of CO</i>	0.08	0.20	0.08
Times in days (hours)	Exponential function SOA production (mg/g CO)		
0.2 (4.8h)	22	24	10
0.4 (9.6h)	38	46	18
0.6 (14.4h)	50	65	26
0.8 (19.2h)	58	81	32
1.0 (24.0h)	64	96	38
1.2 (28.8h)	69	108	43
1.4 (33.6h)	72	119	48
1.6 (38.4h)	74	129	52
1.8 (43.2h)	76	138	55
2.0 (48.0h)	77	145	58

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