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Atmospheric Chemistry and Physics Discussions

Interactive comment on "The weekend effect within and downwind of Sacramento: Part 1. Observations of ozone, nitrogen oxides, and VOC reactivity" *by* J. G. Murphy et al.

Anonymous Referee #2

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General comments

I agree with referee 1 that these are very good analyses and that this is a nice contribution to ACP.

Specific Comments

Abstract

p. 11428, line 8: VOC reactivity at three sites from 2001 and 2003 is mentioned but in the text and in Fig 9., there is only mention of NMHC measurements in ppb of C. VOC reactivity was obtained at two sites for the summer of 2001. This sentence should be

changed to reflect this.

p. 11428, line 11: is this the VOC reactivity measured at the two sites in 2001? I could not find the value of 10% in the text. 10% should be mentioned at the relevant point in the text, ie p11442 or 11443

Introduction

p. 11429, line 24: suggestion to specify which studies in the past have included detailed NOx and VOC measurements

Timing of peak ozone

p. 11437, line 13: suggestion to explain why the distance of $>$15km is important

The weekend effect in the Sacramento region

p. 11438, line 20: Suggestion to add whether or not other averages were tried. Obviously the focus is on the 8h average but I am interested to know if any other averages were looked at.

p.11439, line 10: put in number of inhabitants of Stockton as it is unfamiliar

Day of week trends in O3, NOx and VOC

p. 11440, line 12-14: similarly to Referee 1 I would like to know how NO was calculated. Obviously peroxy radical concentrations could potentially be high for the periods of maximum ozone and these would perturb the PSS and complicate the calculation of NO.

p 11443, line 23, Can a number be put to this similarity

Interactive comment on Atmos. Chem. Phys. Discuss., 6, 11427, 2006.