Erratum to “Measurement of Particle-bound Reactive Oxygen Species in Rubidoux Aerosols”

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Prasanna Venkatachari¹, Philip K. Hopke¹, Brett D. Grover²
and Delbert J. Eatough²

¹Department of Chemical Engineering, Clarkson University, Potsdam, NY 13699-5708, USA

²Department of Chemistry and Biochemistry, Brigham Young University, Provo, UT 86402, USA

The concentrations of the particle-bound ROS in the paper were reported in units of moles of equivalent H_2O_2 per liter of extraction solution per m^3 of air sampled. This choice of units has led to some confusion in the interpretation of the levels of ROS observed vis-a-vis earlier studies that reported particle-bound ROS concentrations. For example, Hung and Wang (2001) reported concentrations in moles of equivalent H_2O_2 per m^3 of air sampled. Furthermore, it is not made entirely clear in our paper as to the conversion factor which needs to be applied to our results to compare relative levels of ROS observed by us to those observed by Hung and Wang (2001).

The volume of solution used for extraction of the particle-bound ROS from the collected filters is 12.5 mL or 0.0125 L. This value can be arrived at from Section 3.2.1 that deals with the preparation of the dichlorofluorescein. Multiplying the reported individual molar concentrations of ROS per m^3 of air sampled with this volume would result in concentrations of the particle-bound ROS in moles of equivalent H_2O_2 per m^3 of air sampled. A revised version of Figure 2 shows the

Figure 1. Revised version of Figure 2 from Venkatarachi et al. (Journal of Atmospheric Chemistry (2005) 50: 49–58)

diurnal relationships for ROS and ozone. It should be noted that the comparison to the results reported in earlier studies alluded to in our paper was made using compatible units, and so, the erratum does not, in any way, impinge on the integrity of the analysis.