



ADDITIONAL MATERIALS AVAILABLE ON THE HEI WEB SITE

Research Report 179

Development and Application of an Aerosol Screening Model for Size-Resolved Urban Aerosols

Charles O. Stanier and Sang-Rin Lee

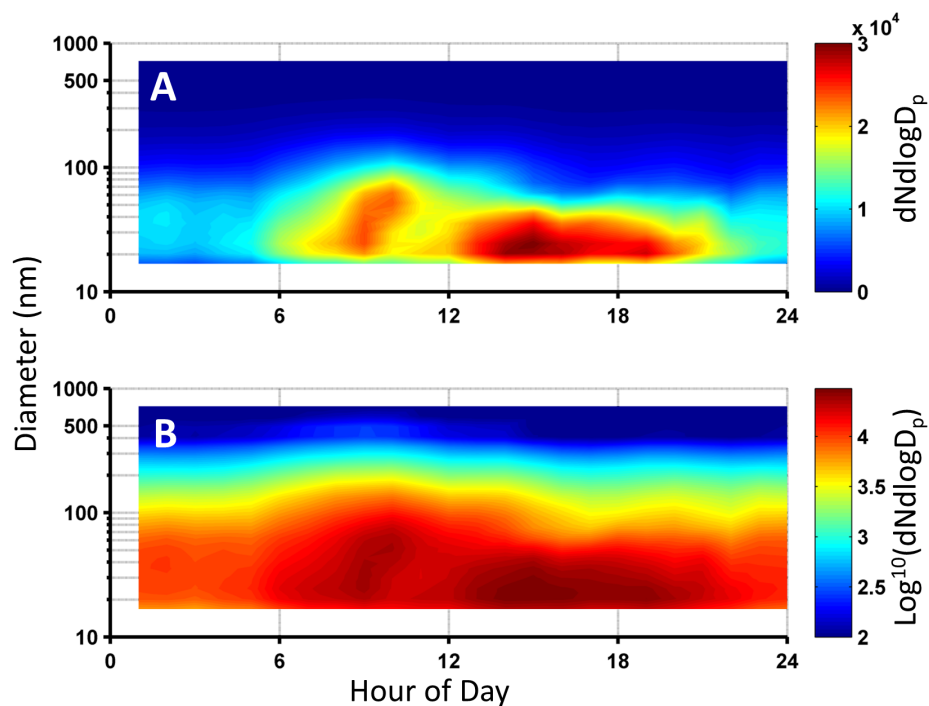
Additional Materials 1 through 4: Colorplots of Number Size Distributions

Correspondence may be addressed to Dr. Charles O. Stanier, University of Iowa, 4122 Seamans Center for the Engineering Arts and Sciences, Iowa City, IA 52242-1527; email: charles-stanier@uiowa.edu.

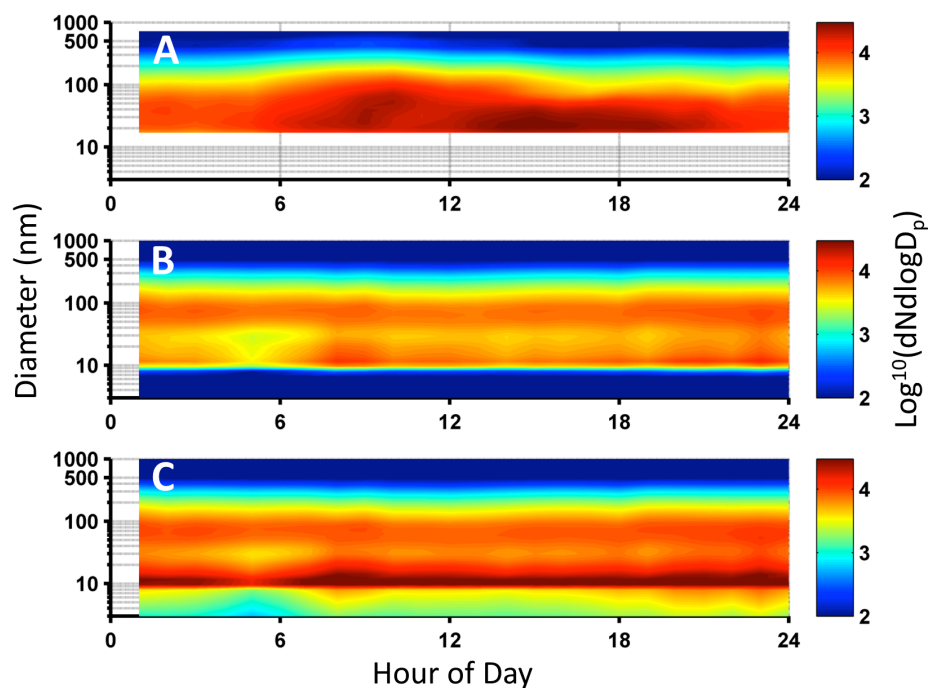
Although this document was produced with partial funding by the United States Environmental Protection Agency under Assistance Award CR-83467701 to the Health Effects Institute, it has not been subjected to the Agency's peer and administrative review and therefore may not necessarily reflect the views of the Agency, and no official endorsement by it should be inferred. The contents of this document also have not been reviewed by private party institutions, including those that support the Health Effects Institute; therefore, it may not reflect the views or policies of these parties, and no endorsement by them should be inferred.

This document was reviewed by the HEI Health Review Committee but did not undergo the HEI scientific editing and production process.

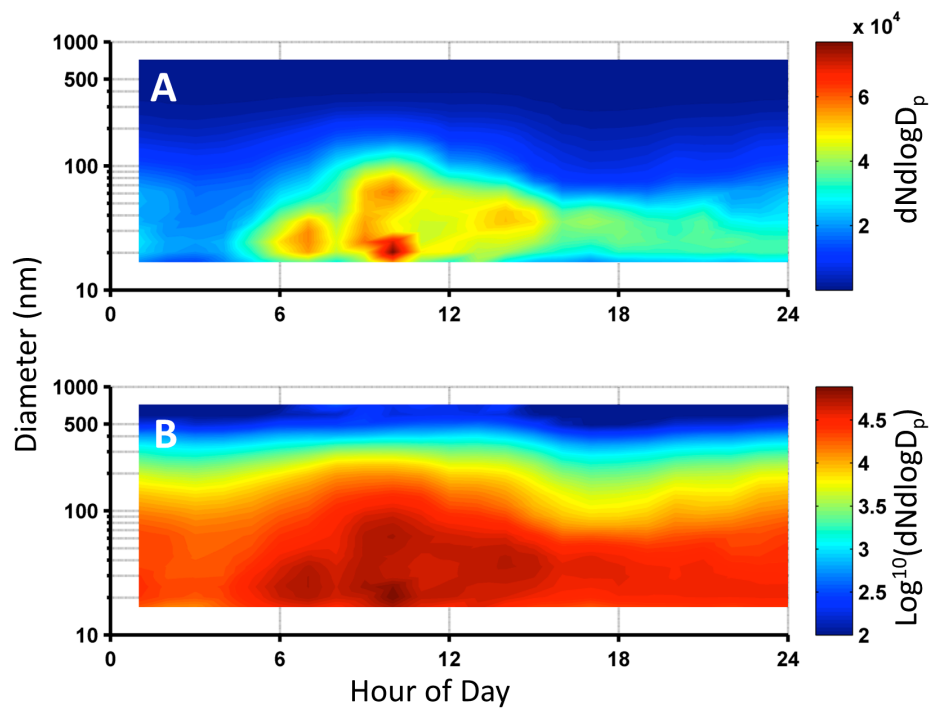
© 2014 Health Effects Institute, 101 Federal Street, Suite 500, Boston, MA 02110-1817



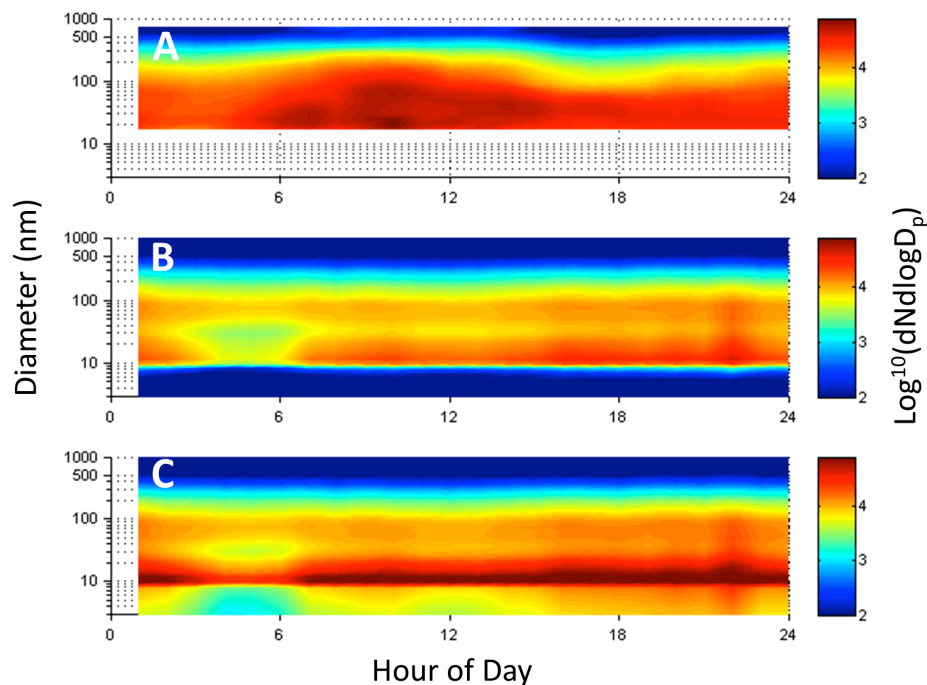
Additional Materials 1. Colorplot of measured diurnally averaged number size distributions at the LB4 site for September 2007. Intensity of the size distribution function is shown as the color, plotted versus local time of day (x axis) and particle diameter (y axis). Warm (cool) colors indicate high (low) values of the distribution function. Data are identical in both panels, but the color scaling is adjusted. Both linear (top) and log (bottom) scales are used to map concentrations to color, as indicated by the color scales. In both panels, the dark red color of the top panel corresponds to the maximum value of the size distribution function measured ($30,010/\text{cm}^3$ as the $dN/d\log(D_p)$ size distribution function, which occurs at a size of 24 nm and a time of 2:00 PM).



Additional Materials 2. Colorplots of measured and simulated diurnally averaged number size distributions at the LB4 site for September 2007, showing the (top) average measured distribution, (middle) modeled distribution after accounting for particle losses, and (bottom) modeled distribution before accounting for particle losses. Intensity of the size distribution function is shown as the color, plotted versus local time of day (x axis) and particle diameter (y axis). Warm (cool) colors indicate high (low) values of the distribution function. In all three panels, the dark red color of the top panel corresponds to the maximum value of the size distribution function measured ($30,010/\text{cm}^3$ as the $\text{dN}/\text{dlog}(D_p)$ size distribution function, which occurs at a size of 24 nm and a time of 2:00 PM).



Additional Materials 3. Colorplot of measured diurnally averaged number size distributions at the LB5 site for September 2007. Intensity of the size distribution function is shown as the color, plotted versus local time of day (x axis) and particle diameter (y axis). Warm (cool) colors indicate high (low) values of the distribution function. Data is identical in both panels, but the color scaling is adjusted. Both linear (top) and log (bottom) scales are used to map concentrations to color, as indicated by the color scales. In both panels, the dark red color of the top panel corresponds to the maximum value of the size distribution function measured ($77,090/\text{cm}^3$ as the $dN/d\log(D_p)$ size distribution function, which occurs at a size of 20 nm and a time of 9:00 AM).



Additional Materials 4. Colorplots of measured and simulated diurnally averaged number size distributions at the LB5 site for September 2007, showing the (top) average measured distribution, (middle) modeled distribution after accounting for particle losses, and (bottom) modeled distribution before accounting for particle losses. Intensity of the size distribution function is shown as the color, plotted versus local time of day (x axis) and particle diameter (y axis). Warm (cool) colors indicate high (low) values of the distribution function. In all three panels, the dark red color of the top panel corresponds to the maximum value of the size distribution function measured ($77,090/\text{cm}^3$ as the $\text{dN}/\text{dlog}(D_p)$ size distribution function, which occurs at a size of 20 nm and a time of 9:00 AM).