The Coordinating Research Council sponsored two "Real-Time PM Measurement Workshops" in December, 2008 and March, 2009. The workshop organizing chairs, Matti Maricq and Hector Maldonado, outlined their primary objective: "We hope to outline a 21st century scientific roadmap for measuring and understanding combustion aerosols. The workshops will bring together a diverse group of speakers to lay out the known pieces that comprise the PM measurements puzzle, then try to assemble these pieces into a larger picture." Speakers at the workshops were invited to submit written articles for peer-review and consideration in a special series of papers. The final articles that were published in the October, 2010 issue of the Journal of the American Waste Management Association [1] are listed below.

These papers broadly review the state of the art in engine exhaust PM measurement and how these are connected among dynamometer, laboratory, and ambient settings. This material should be especially valuable to CRC members at the present time, when federal and state agencies are contemplating next generation emissions standards.

AWMA members can view the article series at www.awma.org, by searching "Journal Back Issues", using an author's name, part of the title, or a keyword.

Combustion Aerosol 2009

A special grouping of papers on current status and future directions in combustion aerosols.

Directions for Combustion Engine Aerosol Measurement in the 21st Century, by M. Matti Maricq and Hector Maldonado

Alternatives to the Gravimetric Method for Quantification of Diesel Particulate Matter near the Lower Level of Detection, by Jacob Swanson, David Kittelson, David Pui, and Winthrop Watts

Evolution of Vehicle Exhaust Particles in the Atmosphere by Manjula R. Canagaratna, Timothy B. Onasch, Ezra C. Wood, Scott C. Herndon, John T. Hayne, Eben S. Cross, Richard C. Miake-Lye, Charles E. Kolb, and Douglas R. Worsnop

Updating the Conceptual Model for Fine Particle Mass Emissions from Combustion Systems, by Allen L. Robinson, Andrew P. Grieshop, Neil M. Donahue, and Sherri W. Hunt.

The Potential of a Partial-Flow Constant Dilution Ratio Sampling System as a Candidate for Vehicle Exhaust Aerosol Measurements, by Leonidas Ntziachristos and Zissis Samaras

Theoretical versus Observed Gas-Particle Partitioning of Carbonyl Emissions from Motor Vehicles by Jianjun Chen, Chris Jakober, Simon Clegg, and Michael J. Kleeman

Can Real-World Diesel Exhaust Particle Size Distribution be Reproduced in the Laboratory? A Critical Review, by Jorma Keskinen and Topi Ronkko

[1] Volume 60, No. 10.