

**Post-doctoral position in functional group analysis of atmospheric particulate matter using FT-IR,
University of California, Davis**

I am seeking a post-doctoral researcher to calibrate FT-IR spectra for measurement of organic functional groups in atmospheric particulate matter collected at National Parks and Wilderness Areas in the United States. The goals of this research, under funding from the Electric Power Research Institute, are to develop laboratory standards and calibrations for trace organic functional groups including amines, organonitrates and organosulfates and to measure these and previously calibrated functional groups in particulate matter samples collected on filters. Particulate matter samples contain thousands of organic compounds leading to filter samples with a wide range of aerosol composition that yield highly variable spectra. This work extends previous work by our group (Ruthenburg et al., 2014, Determination of organic matter and organic matter to organic carbon ratios by infrared spectroscopy with application to selected sites in the IMPROVE network) that successfully employed FT-IR spectra and partial least squares regression to quantify organic functional groups in ambient aerosol samples. The initial appointment is for one year with additional year(s) contingent upon funding and mutual agreement. The position includes health insurance and other benefits.

The candidate must have a PhD in Chemistry, Chemical or Environmental Engineering or a related field with a preference for research experience in FT-IR, multivariate analysis techniques, and/or atmospheric aerosol organic chemistry. Interested individuals should send a CV, graduate transcripts, date of availability, contact information of three references and up to three published papers all in one pdf file to [Dr. Ann M. Dillner](mailto:amdillner@ucdavis.edu) (amdillner at ucdavis dot edu). More information on Dr. Dillner's lab is available at <http://crocker.ucdavis.edu/users/dillner/> and <http://crocker.ucdavis.edu/air-quality/improve-research/>.

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