Elisabeth Andrews

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Education

University of Illinois, Department of Civil Engineering — Urbana, IL

- PhD Environmental Engineering 1996
- MS Environmental Engineering 1991

California Institute of Technology — Pasadena, CA

- BS Chemical Engineering 1989

Experience

1999–present — NOAA/ESRL/GMD — Boulder, CO

CIRES Research Scientist

- Data analysis of aerosol optical data related to climate change and long term trends in aerosol properties and aerosol transport
- Laboratory and field maintenance of aerosol monitoring instruments
- Computer programming for data analysis and web-based instrument monitoring
- Conference organizer (Mountain, Visibility)
- Special issue editor (AAQR)

1999-2000 — CIRES Outreach — Boulder, CO

CIRES Research Scientist

- Studied involvement and retention of scientists in outreach programs
- Supervised graduate students doing outreach research
- Participated in CIRES Earthworks for K-12 teachers course

1998-1999 — University of Northern Colorado — Greeley, CO

NSF PFSMETE Post-doc

- Studied factors influencing high school student interest in science
- Taught 'Introduction to environmental science' undergraduate elective
- Taught 'Air pollution and statistics' course to Upward Bound students.

1997-1998 — Electric Power Research Institute — Palo Alto, CA

Consultant

- Analyzed aerosol chemical, optical and gravimetric data from SEAVS field program

1996-1997 — Colorado State University — Fort Collins, CO

CIRA Post-doc

- Intercomparison of cloud droplet monitoring techniques
- Studied cloud-aerosol interactions

Awards

2009 Haagen-Smit Award for good paper, various CIRES awards

Publications

In progress

Schmeisser, L., Andrews, E., Ogren, J.A., et al., "Classifying aerosol type using in-situ surface spectral aerosol optical properties," for submission to *Atmos. Chem. Phys.*

Schmeisser, L., Backman, J., Andrews, E., Ogren, J.A., Asmi, E., Starkweather, S., Fiebig, M., Sharma, S., Eleftheriades, K., Uttal, T., Bergin, M., Tunved, P., Jefferson, A., "Climatology of aerosol optical properties in the Arctic," for submission to *Atmos. Chem. Phys.*

Andrews, E., Schmeisser, L., Ogren, J.A., et al., "Comparison of Aerosol Optical Property Climatology Between In-situ Surface Measurements and Model Simulations," for submission to *Atmos. Chem. Phys.*

Mason, B., Wagner, W.L., Adler, G., Andrews, E., Brock, C.A., Gordon, T.D., Lack, D.A., Perring, A.E., Richardson, M.S., Schwarz, J. P., Ziemba, L.D., Murphy, D.M., "An intercomparison of absorption measurements conducted during the SEAC4RS campaign," for submission to *Atmos. Meas. Technol.*

Submitted

Andrews, E., Ogren, J.A., Kinne, S., Samset, B., "Is there a bias in AERONET retrievals of aerosol light absorption at low AOD conditions?," submitted to *Atmos. Chem. Phys.*, September, 2016.

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Titos, G., Cazorla, A., Zieger, P., Andrews, E., Lyamani, H., Granados-Munoz, M.J., Olmo, F.J., Alados-Arboledas, L., "Effect of hygroscopic growth on the aerosol light-scattering coefficient: A review of measurements, techniques and error sources," Atmos. Environ., 141, 494-507, doi:10.1016/j.atmosenv.2016.07.021, 2016.

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Hallar, A.G., Andrews, E., Bukowiecki, N., Jaffe, D.A., Lin, N.-H*.,* "Overview of the Special Issue "Selected Papers from the 2nd Atmospheric Chemistry and Physics at Mountain Sites Symposium"", *AAQR,* 16, 471-477, 2016.

Hallar, A.G., Petersen, R., McCubbin, I.B., Lowenthal, D., Lee, S., Andrews, E., Yu, F., "Climatology of new particle formation and corresponding precursors at Storm Peak Laboratory," *AAQR*, 16, 816-826, 2016.

Sheridan, P.J., Andrews, E., Schmeisser, L., Vasel, B., Ogren, J.A., "Aerosol Measurements at South Pole: Climatology and Impact of Local Contamination" *AAQR*, 855-872, 2016.

Hallar, A. G., Petersen, R., Andrews, E., Michalsky, J., McCubbin, I.B., Ogren, J., "Contributions of Dust and Biomass-burning to Aerosols at a Colorado Mountain-top Site," *Atmos. Chem. Phys, 13665-13679,* 2015.

Sherman, J.P., Sheridan, P.J., Ogren, J.A., Andrews, E., Hageman, D.C., Schmeisser, L., Jefferson, A., Sharma, A., "A multi-year study of lower tropospheric aerosol variability and systematic relationships from four North American regions," Atmos. Chem. Phys., 15, 12487-12517, 2015.

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