

LAC Publications 2007

Journal Articles 2007

Alfarra, M. R., A. S. H. Prevot, S. Szidat, J. Sandradewi, S. Weimer, V. A. Lanz, D. Schreiber, M. Mohr, and U. Baltensperger, 2007:

Identification of the mass spectral signature of organic aerosols from wood burning emissions.
Environ. Sci. Technol., **41**, 5770-5777.

Aymoz, G., J. L. Jaffrezo, D. Chapuis, J. Cozic, and W. Maenhaut, 2007:

Seasonal variation of PM10 main constituents in two valleys of the French Alps. I: EC/OC fractions.
Atmos. Chem. Phys., **7**, 661-675.

Bae, M. S., K. L. Demerjian, J. J. Schwab, S. Weimer, J. Hou, X. L. Zhou, K. Rhoads, and D. Orsini, 2007:

Intercomparison of real time ammonium measurements at urban and rural locations in New York.
Aerosol Sci. Technol., **41**, 329-341.

Bae, M.-S., J. J. Schwab, Q. Zhang, O. Hogrefe, K. L. Demerjian, S. Weimer, K. Rhoads, D. Orsini, P. Venkatachari, and P. K. Hopke, 2007:

Interference of organic signals in highly time resolved nitrate measurements by low mass resolution aerosol mass spectrometry.

J. Geophys. Res., **112**, doi:10.1029/2007JD008614.

Battipaglia, G., P. Cherubini, M. Saurer, R. T. W. Siegwolf, S. Strumia, and M. F. Cotrufo, 2007:

Volcanic explosive eruptions of the Vesuvio decrease tree-ring growth but not photosynthetic rates in the surrounding forests.

Global Change Biology, **13**, 1122-1137.

Boettger, T., M. Haupt, K. Knoller, S. M. Weise, J. S. Waterhouse, K. T. Rinne, N. J. Loader, E. Sonninen, H. Jungner, V. Masson-Delmotte, M. Stievenard, M. T. Guillemin, M. Pierre, A. Pazdur, M. Leuenberger, M. Filot, M. Saurer, C. E. Reynolds, G. Helle, and G. H. Schleser, 2007:

Wood cellulose preparation methods and mass spectrometric analyses of d¹³C, d¹⁸O, and nonexchangeable d²H values in cellulose, sugar, and starch: An interlaboratory comparison.

Anal. Chem., **79**, 4603-4612.

Bukowiecki, N., R. Gehrig, M. Hill, P. Lienemann, C. N. Zwicky, B. Buchmann, E. Weingartner, and U. Baltensperger, 2007:

Iron, manganese and copper emitted by cargo and passenger trains in Zurich (Switzerland): Size-segregated mass concentrations in ambient air.

Atmos. Environ., **41**, 878-889.

Canagaratna, M. R., J. T. Jayne, J. L. Jimenez, J. D. Allan, M. R. Alfarra, Q. Zhang, T. B. Onasch, F. Drewnick, H. Coe, A. Middlebrook, A. Delia, L. R. Williams, A. M. Trimborn, M. J. Northway, P. F. DeCarlo, C. E. Kolb, P. Davidovits, and D. R. Worsnop, 2007:

Chemical and microphysical characterization of ambient aerosols with the aerodyne aerosol mass spectrometer.

Mass Spectrometry Reviews, **26**, 185-222.

Chirico, R., P. Spezzano, and D. Cataldi, 2007:

Gas-particle partitioning of polycyclic aromatic hydrocarbons during the spring and summer in a suburban site near major traffic arteries.

Polycyclic Aromatic Compounds, **27**, 401-423.

Collaud Coen, M., E. Weingartner, S. Nyeki, J. Cozic, S. Henning, B. Verheggen, R. Gehrig, and U. Baltensperger, 2007:

Long-term trend analysis of aerosol variables at the high alpine site Jungfraujoch.

Geophys. Res., **112**, doi: 10.1029/2006JD007995.

Cozic, J., B. Verheggen, S. Mertes, P. Connolly, K. Bower, A. Petzold, U. Baltensperger, and E. Weingartner, 2007:

Scavenging of black carbon in mixed phase clouds at the high alpine site Jungfraujoch.

Atmos. Chem. Phys., **7**, 1797-1807.

Cozic, J., B. Verheggen, E. Weingartner, J. Crosier, K. Bower, M. Flynn, H. Coe, S. Henning, M. Steinbacher, M. C. Coen, A. Petzold, and U. Baltensperger, 2007:

Chemical composition of free tropospheric aerosol for PM1 and coarse mode at the high alpine site Jungfraujoch.

Atmos. Chem. Phys. Discuss., **7**, 12145-12184.

Crosier, J., J. L. Jimenez, J. D. Allan, K. N. Bower, P. I. Williams, M. R. Alfarra, M. R. Canagaratna, J. T. Jayne, D. R. Worsnop, and H. Coe, 2007:

Technical note: Description and use of the new jump mass spectrum mode of operation for the aerodyne quadrupole aerosol mass spectrometers (Q-AMS).

Aerosol Sci. Technol., **41**, 865-872.

David, T. S., M. O. Henriques, C. Kurz-Besson, J. Nunes, F. Valente, M. Vaz, J. S. Pereira, R. Siegwolf, M. M. Chaves, L. C. Gazarini, and J. S. David, 2007:

Water-use strategies in two co-occurring Mediterranean evergreen oaks: surviving the summer drought.

Tree Physiology, **27**, 793-803.

De Micco, V., M. Saurer, G. Aronne, R. Tognetti, and P. Cherubini, 2007:

Variations of wood anatomy and d¹³C within-tree rings of coastal Pinus pinaster showing intra-annual density fluctuations.

Iowa Journal, **28**, 61-74.

Drewnick, F., J. Schneider, S. S. Hings, N. Hock, K. Noone, A. Targino, S. Weimer, and S. Borrmann, 2007:

Measurement of ambient, interstitial, and residual aerosol particles on a mountaintop site in Central Sweden using an aerosol mass spectrometer and a CVI.

Atmos. Chem., **56**, 1-20.

Drobinski, P., R. Steinacker, H. Richner, K. Baumann-Stanzer, G. Beffrey, B. Benech, H. Berger, B. Chimani, A. Dabas, B. Dürr, C. Flamant, M. Frioud, M. Furger, I. Gröhn, S. Gubser, T. Gutermann, C. Häberli, E. Häller-Scharnhorst, G. Jaubert, M. Lothon, V. Mitev, U. Pechinger, M. Piringer, M. Ratheiser, D. Ruffieux, G. Seiz, M. Spatzierer, S. Tschanneit, S. Vogt, R. Werner, and G. Zängl, 2007:

Föhn in the Rhine Valley during MAP: A review of its multiscale dynamics in complex valley geometry.

Quarterly Journal of the Royal Meteorological Society, **133**, 897-916.

Furger, M., 2007:

Book review: Symon et al. (Eds)., Arctic Climate Impact Assessment.

Meteorologische Zeitschrift, **16**, 317-318 doi:10.1127/0941-2948/2007/0211.

Gehrig, R., M. Hill, P. Lienemann, C. N. Zwicky, N. Bukowiecki, E. Weingartner, U. Baltensperger, and B. Buchmann, 2007:

Contribution of railway traffic to local PM10 concentrations in Switzerland.

Atmos. Environ., **41**, 923-933.

Gilmanov, T. G., J. F. Soussana, L. Aires, V. Allard, C. Ammann, M. Balzarolo, Z. Barcza, C. Bernhofer, C. L. Campbell, A. Cernusca, A. Cescatti, J. Clifton-Brown, B. O. M. Dirks, S. Dore, W. Eugster, J. Fuhrer, C. Gimeno, T. Gruenwald, L. Haszpura, A. Hensen, A. Ibrom, A. F. G. Jacobs, M. B. Jones, G. Lanigan, T. Laurila, A. Lohila, G. Manca, B. Marcolla, Z. Nagy, K. Pilegaard, K. Pinter, C. Pio, A. Raschi, N. Rogiers, M. J. Sanz, P. Stefani, M. Sutton, Z. Tuba, R. Valentini, M. L. Williams, and G. Wohlfahrt, 2007:

Partitioning European grassland net ecosystem CO₂ exchange into gross primary productivity and ecosystem respiration using light response function analysis.

Agriculture, Ecosystems and Environment, **121**, 93-120.

Gysel, M., J. Crosier, D. O. Topping, J. D. Whitehead, K. N. Bower, M. J. Cubison, P. I. Williams, M. J. Flynn, G. B. McFiggans, and H. Coe, 2007:

Closure study between chemical composition and hygroscopic growth of aerosol particles during TORCH2.

Atmospheric Chemistry and Physics, **7**, 6131-6144.

Jäaggi, M., and J. Fuhrer, 2007:

Oxygen and carbon isotopic signatures reveal a long-term effect of free-air ozone enrichment on leaf conductance in semi-natural grassland.

Atmos. Environ., doi:10.1016/j.atmosenv.2007.07.044.

Jenk, T. M., S. Szidat, M. Schwikowski, H. W. Gaggeler, L. Wacker, H. A. Synal, and M. Saurer, 2007:

Microgram level radiocarbon (C-14) determination on carbonaceous particles in ice.

Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms, **259**, 518-525.

Keel, S. G., R. T. W. Siegwolf, M. Jaggi, and C. Körner, 2007:

Rapid mixing between old and new C pools in the canopy of mature forest trees.

Plant Cell and Environment, **30**, 963-972.

Keller, J., S. Bojinski, and A. S. H. Prevot, 2007:

Simultaneous retrieval of aerosol and surface optical properties using data of the Multi-angle Imaging SpectroRadiometer (MISR).

Remote Sensing of Environment, **107**, 120-137.

Lanz, V. A., M. R. Alfarra, U. Baltensperger, B. Buchmann, C. Hueglin, and A. S. H. Prevot, 2007:

Source apportionment of submicron organic aerosols at an urban site by factor analytical modelling of aerosol mass spectra.

Atmos. Chem. Phys., **7**, 1503-1522.

Liu, L., S. Andreani-Aksoyoglu, J. Keller, C. Ordóñez, W. Junkermann, C. Hak, G. O. Braathen, S. Reimann, C.

Astorga-Llorens, M. Schultz, A. S. H. Prevot, and I. S. A. Isaksen, 2007:

A photochemical modeling study of ozone and formaldehyde generation and budget in the Po basin.

Geophys. Res., **112**.

Liu, L., F. Flatøy, C. Ordoñez, G.O. Braathen, C. Hak, W. Junkermann, S. Andreani-Aksoyoglu, J. Mellqvist, B. Galle, A.S.H. Prévôt, and I. S. A. Isaksen, 2007:

Photochemical modelling in the Po basin with focus on formaldehyde and ozone.

Atmos. Chem. Phys., **7**, 121-137.

Mertes, S., B. Verheggen, S. Walter, P. Connolly, M. Ebert, J. Schneider, K. N. Bower, J. Cozic, S. Weinbruch, U. Baltensperger, and E. Weingartner, 2007:

Counterflow virtual impact or based collection of small ice particles in mixed-phase clouds for the physico-chemical characterization of tropospheric ice nuclei : Sampler description and first case study.

Aerosol Sci. Technol., **41**, 848-864.

Novak, K., P. Cherubini, M. Saurer, J. Fuhrer, J. M. Skelly, N. Kräuchi, and M. Schaub, 2007:

Ozone air pollution effects on tree-ring growth, d¹³C, visible foliar injury and leaf gas exchange in three ozone-sensitive woody plant species.

Tree Physiology, **27**, 941-949.

Ólafsson, H., M. Furger, and B. Brümmer, 2007:

The weather and climate of Iceland.

Meteorologische Zeitschrift, **16**, 5-8.

Ordóñez, C., D. Brunner, J. Staehelin, P. Hadjinicolaou, J. A. Pyle, M. Jonas, H. Wernli, and A. S. H. Prevot, 2007:

Strong influence of lowermost stratospheric ozone on lower tropospheric background ozone changes over Europe.

Geophys. Res. Lett., **34**, L07805, doi:10.1029/2006GL029113.

Petzold, A., J. Hasselbach, P. Lauer, R. Baumann, K. Franke, C. Gurk, H. Schlager, and E. Weingartner, 2007:

Experimental studies on particle emissions from cruising ship, their characteristic properties, transformation and atmospheric lifetime in the marine boundary layer.

Atmos. Chem. Phys. Discuss., **7**, 15105-15154.

Petzold, A., B. Weinzierl, H. Huntrieser, A. Stohl, E. Real, J. Cozic, M. Fiebig, J. Hendricks, A. Lauer, K. Law, A. Roiger, H. Schlager, and E. Weingartner, 2007:

Perturbation of the European free troposphere aerosol by North American forest fire plumes during the ICARTT-ITOP Experiment in summer 2004.

Atmos. Chem. Phys., **7**, 5105-5127.

Reinhardt, A., C. Emmenegger, B. Gerrits, C. Panse, J. Dommen, U. Baltensperger, R. Zenobi, and M. Kalberer, 2007:

Ultrahigh mass resolution and accurate mass measurements as a tool to characterize oligomers in secondary organic aerosols.

Anal. Chem., **79**, 4074-4082.

- Reynolds-Henne, C. E., R. T. W. Siegwolf, S. Henne, K. Treydte, J. Esper, and M. Saurer, 2007:
Temporal stability of climate-isotope relationships in tree rings of oak and pine (Ticino, Switzerland).
Global Biogeochemical Cycles, **21**, GB4009, doi:10.1029/2007GB002945.
- Ruff, M., L. Wacker, H. W. Gäggeler, M. Suter, H.-A. Synal, and S. Szidat, 2007:
A gas ion source for radiocarbon measurements at 200 kV.
Radiocarbon, **49**, 307-314.
- Salcedo, D., T. B. Onasch, M. R. Canagaratna, K. Dzepina, J. A. Huffmann, J. T. Jayne, D. R. Worsnop, C. E. Kolb, S. Weimer, F. Drewnick, J. D. Allan, A. E. Delia, and J. L. Jimenez, 2007:
Technical note: Use of a beam width probe in an aerosol mass spectrometer to monitor particle collection efficiency in the field.
Atmos. Chem. Phys., **7**, 549-556.
- Schaub, D., D. Brunner, K. F. Boersma, J. Keller, D. Folini, B. Buchmann, H. Berresheim, and J. Staehelin, 2007:
SCIAMACHY tropospheric NO₂ over Switzerland: Estimates of NO_x lifetimes and impact of inaccurate representation of the complex Alpine topography on the retrieval.
Atmos. Chem. Phys., **7**, 5971-5987.
- Sjogren, S., M. Gysel, E. Weingartner, M. R. Alfarra, J. Duplissy, J. Cozic, J. Crosier, H. Coe, and U. Baltensperger, 2007:
Hygroscopicity of the submicrometer aerosol at the high-alpine site Jungfraujoch, 3580m a.s.l., Switzerland.
Atmos. Chem. Phys. Discuss., **7**, 13699-13732.
- Sjogren, S., M. Gysel, E. Weingartner, U. Baltensperger, M. J. Cubison, H. Coe, A. A. Zardini, C. Marcolli, U. K. Krieger, and T. Peter, 2007:
Hygroscopic growth and water uptake kinetics of two-phase aerosol particles consisting of ammonium sulfate, adipic and humic acid mixtures.
J. Aerosol Sci., **38**, 157-171.
- Steinbacher, M., C. Zellweger, B. Schwarzenbach, S. Bugmann, B. Buchmann, C. Ordóñez, A. S. H. Prevot, and C. Hueglin, 2007:
Nitrogen oxide measurements at rural sites in Switzerland: Bias of conventional measurement techniques.
J. Geophys. Res., **112**, doi:10.1029/2006JD007971.
- Szidat, S., A. S. H. Prevot, J. Sandradewi, M. R. Alfarra, H. A. Synal, L. Wacker, and U. Baltensperger, 2007:
Dominant impact of residential wood burning on particulate matter in Alpine valleys during winter.
Geophys. Res. Lett., **34**, L05820, doi:10.1029/2006GL028325.
- Theis, D. E., M. Jäggi, D. Äschlimann, H. Blum, E. Frossard, and R. T. W. Siegwolf, 2007:
Dynamics of soil organic matter turnover and soil respiration CO₂ in a temperate grassland labeled with ¹³C.
European Journal of Soil Science, doi: 10.1111/j.1365-2389.2007.00941.x.
- Verheggen, B., J. Cozic, E. Weingartner, B. K. N. Bower, S. Mertes, P. Connolly, M. W. Gallagher, M. Flynn, T. Choularton, and U. Baltensperger, 2007:
Aerosol activation in liquid and mixed phase clouds at the high alpine site Jungfraujoch.
Geophys. Res., **112**, doi:10.1029/2007JD008714R.
- Verheggen, B., M. Mozurkewich, P. Caffrey, G. Frick, W. Hoppel, and W. Sullivan, 2007:
alpha-Pinene oxidation in the presence of seed aerosol: Estimates of nucleation rates, growth rates, and yield.
Environ. Sci. Technol., **41**, 6046-6051.
- Vesna, O., S. Sjogren, E. Weingartner, V. Samburova, M. Kalberer, H. W. Gäggeler, and M. Ammann, 2007:
Changes of fatty acid aerosol hygroscopicity induced by ozonolysis under humid conditions.
Atmos. Chem. Phys. Discuss., **7**, 15651-15668.
- von Felten, S., S. Hättenschwiler, M. Saurer, and R. Siegwolf, 2007:
Carbon allocation in shoots of alpine treeline conifers in a CO₂ enriched environment.
Trees-Structure and Function, **21**, 283-294.
- Wagner, T., J. Burrows, T. Deutschmann, B. Dix, F. Hendrick, C. von Friedeburg, U. Frieß, K.-P. Heue, H. Irie, H. Iwabuchi, J. Keller, C. McLinden, H. Oetjen, E. Palazzi, A. Petrotoli, U. Platt, O. Postylyakov, J. Pukite, A. Richter, M. van Roozendael, A. Rozanov, V. Rozanov, R. Sinreich, S. Sanghavi, and F. Wittrock, 2007:
Comparison of box-air-mass-factors and radiances for MAX-DOAS-geometries calculated from different

UV/visible radiative transfer models.

Atmos. Chem. Phys., **7**, 1809-1833.

Zhang, Q., J. L. Jimenez, M. R. Canagaratna, J. D. Allan, H. Coe, I. Ulbrich, M. R. Alfarra, A. Takami, A. M. Middlebrook, Y. L. Sun, K. Dzepina, E. Dunlea, K. Docherty, P. F. DeCarlo, D. Salcedo, T. B. Onasch, J. T. Jayne, T. Miyoshi, A. Shimono, S. Hatakeyama, N. Takegawa, Y. Kondo, J. Schneider, F. Drewnick, S. Borrmann, S. Weimer, K. Demerjian, P. Williams, K. N. Bower, R. Bahreini, 6), L. Cottrell, R. J. Griffin, J. Rautiainen, J. Y. Sun, Y. M. Zhang, and D. R. Worsnop, 2007:

Ubiquity and dominance of oxygenated species in organic aerosols in anthropogenically-influenced Northern Hemisphere midlatitudes.

Geophys. Res. Lett., **34**, L13801, doi:10.1029/2007GL029979.

Zieger, P., T. Ruhtz, R. Preusker, and J. Fischer, 2007:

Dual-aureole and sun spectrometer system for airborne measurements of aerosol optical properties.

Appl. Opt., **46**, 8542-8552.

Books / Book Sections 2007

Andreani-Aksoyoglu, S., J. Keller, and A. S. H. Prévôt, 2007:

Aerosol Modelling with CAMx4 and PMCAMx: A comparison study.

Air Pollution Modelling and its Application XVII, C. Borrego and A.-L. Norman (Eds.). Springer, Banff, Canada, 247-256.

Andreani-Aksoyoglu, S., J. Keller, A. S. H. Prévôt, and U. Baltensperger, 2007:

Differences in SOA in the north and the south of the Alps: A modelling study.

Volatile Organic Compounds in the polluted atmosphere. The 3rd ACCENT Barnsdale Expert Meeting, J. Burrows et al. (Eds.). Keele Graphic Services, 162-165.

Andreani-Aksoyoglu, S., J. Keller, A. S. H. Prévôt, U. Baltensperger, and J. Flemming, 2007:

Modelling of secondary aerosols in Switzerland in summer 2003.

Air Pollution Modeling and its Application XVIII, C. Borrego and E. Renner (Eds.). Elsevier, Amsterdam, 75-84.

Dawson, T. E., and R. T. W. Siegwolf, 2007:

Stable Isotopes as Indicators of Ecological Change.

Stable Isotopes as Indicators of Ecological Change. Academic Press, 417 pp.

Dawson, T. E., and R. T. W. Siegwolf, 2007:

Using stable isotopes as indicators, tracers and recorders of ecological change: Some context and background.

Stable Isotopes as Indicators of Ecological Change, T. E. Dawson and R. T. W. Siegwolf (Eds.), Terrestrial Ecology Series. Academic Press, 3-18.

Keller, J., 2007:

Retrieval of aerosol optical properties using the Multi-angle Imaging Spectro-radiometer (MISR).

Measuring tropospheric trace constituents from space. ACCENT-TROPOSAT-2 in 2005-6, P. B. John Burrows (Ed.). ACCENT Secretariat, Urbino, 125-126.

Saurer, M., and R. T. W. Siegwolf, 2007:

Human impacts on tree-ring growth reconstructed from stable isotopes.

Stable Isotopes as Indicators of Ecological Change, T. E. Dawson and R. T. W. Siegwolf (Eds.), Terrestrial Ecology Series. Academic Press, 49-62.

Conference Proceedings 2007

Andreani-Aksoyoglu, S., J. Keller, M. R. Alfarra, A. S. H. Prévôt, J. J. Sloan, and Z. He, 2007:

Contribution of biogenic emissions to carbonaceous aerosols in summer and winter in Switzerland: A modelling study.

29th NATO/SPS International Technical Meeting on Air Pollution Modelling and its Application, Aveiro, Portugal, September 24-28.

Andreani-Aksoyoglu, S., J. Keller, M. R. Alfarra, A. S. H. Prévôt, J. J. Sloan, S. Taghavi, S. Nikzad, and Z. He, 2007:

Swiss-Canadian Research on Aerosol Modelling (SCRAM).

In: R. S. Sokhi and M. Neophytou (Editors), *Urban Air Quality*, Limassol, Cyprus, Greece.

Andreani-Aksoyoglu, S., J. Keller, M. R. Alfarra, A. S. H. Prévôt, J. J. Sloan, S. Taghavi, S. Nikzad, and Z. He, 2007:
Swiss-Canadian Research on Aerosol Modelling (SCRAM).
Urban Air Quality, Limassol, Cyprus, March 27-29.

Andreani-Aksoyoglu, S., J. Keller, M. R. Alfarra, J. Sandradewi, and A. S. H. Prévôt, 2007:
Modelling of winter aerosols in Switzerland.
2nd ACCENT Symposium, Urbino, Italy.

Baltensperger, U., U. Lohmann, T. Peter, T. Heck, C. Hüglin, H. Burtscher, and I. Bey, 2007:
Impact of Biomass Burning Aerosol on Air Quality and Climate (IMBALANCE).
Latsis Symposium 2007, CCES, ETH Zürich.

Bower, K., E. Weingartner, T. W. Choularton, M. R. Alfarra, M. W. Gallagher, H. Coe, J. Crosier, J. Allan, A. Targino, I. Crawford, P. Connolly, B. Verheggen, M. Gysel, S. Sjogren, U. Baltensperger, and J. Cozic, 2007:
Observations of the role of organic aerosol in the initiation of ice and liquid clouds.
European Aerosol Conference (EAC), Salzburg, Austria, POSTER (es gibt zitierbares conference abstract dazu).

Bukowiecki, N., P. Lienemann, C. N. Zwicky, M. Hill, R. Gehrig, F. Hegedüs, M. Furger, U. Baltensperger, G. Falkenberg, D. Grolimund, M. Willimann, and S. S. Cliff, 2007:
RDI-SR-XRF: A technique for the detection of trace elements in ambient air with hourly resolution at concentration levels in the pg m⁻³ range.
AAAR Annual Meeting, Reno, Nevada, USA, September 24-28.

Chirico, R., S. Weimer, R. Richter, A. S. H. Prevot, and U. Baltensperger, 2007:
Spatial Gradients of Particle Composition in the Rhine Valley.
11th ETH Conference on Combustion Generated Nanoparticles, ETH Zürich.

Coen, M. C., E. Weingartner, S. Nyeki, J. Cozic, B. Verheggen, and U. Baltensperger, 2007:
Variability and long-term trends of aerosol parameters at the Jungfraujoch.
European Aerosol Conference (EAC), Salzburg, Austria, POSTER.

Crawford, I., M. W. Gallagher, K. Bower, T. W. Choularton, P. Connolly, M. Flynn, B. Verheggen, E. Weingartner, and S. Mertes, 2007:
Observations of phase transitions in mixed phase cloud during CLACE.
European Geosciences Union (EGU), Vienna, Austria, Poster.

Dommen, J., 2007:
Examples of particle analysis by mass spectrometry from PSI smog chamber experiments.
3rd International PTR-MS Conference, Obergurgl, Austria, January 27 - February 1, Innsbruck University Press, 27-30.

Dommen, J., J. Duplissy, M. R. Alfarra, A. Metzger, E. Weingartner, A. S. H. Prevot, U. Baltensperger, D. Gross, P. De Carlo, A. Aiken, J. Kimmel, E. Dunlea, J.-L. Jimenez, M. Northway, A. Trimborn, M. Canagaratna, D. Worsnop, M. Kalberer, A. Reinhardt, and R. Zenobi, 2007:
Examples of SOA analysis by mass spectrometry from the PSI smog chamber.
European Aerosol Conference (EAC), Salzburg, Austria, T01A023.

Dommen, J., R. Fisseha, K. Gaeggeler, and U. Baltensperger, 2006:
On-line measurement of organic acids in gas and particle phase with a WEDD/AC IC-MS.
ACCENT Workshop on Volatile Organic Compounds in the Polluted Atmosphere, Barnsdale UK, April, ACCENT Secretariat, 120-122.

Dommen, J., A. Metzger, A. Gascho, and U. Baltensperger, 2007:
Evaluation of detailed mechanism (MCM v3) against smog chamber data of 1,3,5-trimethylbenzene.
European Geosciences Union (EGU), Vienna, Austria, 06010.

Furger, M., A. Béguin, A. Richard, N. Bukowiecki, P. Lienemann, and U. Baltensperger, 2007:
Determination of trace elements in ambient aerosols by synchrotron XRF.
11th ETH-Conference on Combustion Generated Nanoparticles, ETH Zürich, CD-ROM.

Furger, M., N. Bukowiecki, J. Sandradewi, M. R. Alfarra, P. Lienemann, S. Szidat, A. S. H. Prevot, and U. Baltensperger, 2007:
Elemental composition of winter PM10 aerosol at rural and urban sites determined with synchrotron X-ray fluorescence spectrometry.
Geophysical Research Abstracts, European Geosciences Union (EGU), Vienna, Austria, CD-ROM.

- Furger, M., A. Richard, N. Bukowiecki, A. Béguin, A. S. H. Prévôt, and U. Baltensperger, 2007:
Spurenelemente in Feinstaub (PM10) im Winter in städtischen und ländlichen Gebieten.
Deutsch-Oesterreichisch-Schweizerische Meteorologen-Tagung (DACH2007), Hamburg, Germany, September 10-14,
Deutsche Meteorologische Gesellschaft.
- Gaeggeler, K., J. Dommen, A. S. H. Prevot, S. Reimann, G. Legreid, and U. Baltensperger, 2007:
Wood burning emissions in an Alpine valley: Measurements of OVOCs, NMHCs and organic acids.
Dübendorf, Empa Phd Symposium.
- Gaeggeler, K., J. Dommen, A. S. H. Prevot, U. Baltensperger, A. Merten, U. Platt, L. Molina, and R. Volkamer, 2007:
Online IC-MS measurements of organic acids in aerosols and gas phase in Mexico City.
European Geosciences Union (EGU), Vienna, Austria.
- Graus, M., J. Dommen, A. Metzger, M. Müller, A. Wisthaler, and A. Hansel, 2007:
Measurement of high-molecular weight compounds in the organic fraction of aerosol by high resolution PTR-TOFMS.
European Geosciences Union (EGU), Vienna, Austria, 10471.
- Gysel, M., J. Crosier, D. Topping, J. D. Whitehead, K. N. Bower, M. J. Cubison, P. I. Williams, M. J. Flynn, G. B. McFiggans, and H. Coe, 2007:
Closure between chemical composition and hygroscopic growth of aerosol particles.
European Aerosol Conference (EAC), Salzburg, Austria, T13A092.
- Herich, H., L. Kammermann, D. Cziczo, E. Weingartner, M. Gysel, U. Baltensperger, and U. Lohmann, 2007:
Aerosol Chemical Composition and Hygroscopic Growth - first results from field studies.
11th ETH-Conference on Combustion Generated Nanoparticles, ETH Zürich, August 13-15.
- Hoose, C., U. Lohmann, P. Stier, B. Verheggen, E. Weingartner, and H. Herich, 2007:
Aerosol Processing in Mixed-Phase Clouds in ECHAM5-HAM: Comparison of Single-Column Model Simulations to Observations.
AGU Fall Meeting, San Francisco, CA, USA, Poster.
- Huthwelker, T., G. Tvetkov, J. Raabe, S. Sjögren, E. Weingartner, M. Heuberger-Vernooij, M. Birrer, and M. Ammann, 2007:
Micro spectroscopy on high vapor pressure condensed matter under controlled gas and temperature environment: planned experiments and technical developments at POLLUX.
Faraday Discussion 137: The Spectroscopy and Dynamics of Microparticles, University of Bristol, UK.
- Kammermann, L., H. Herich, D. J. Cziczo, M. Gysel, E. Weingartner, U. Lohmann, and U. Baltensperger, 2007:
Hygroscopic Growth and Chemical Composition - First Results from Combined Measurements with a HTMDA and an ATOFMS.
11th ETH Conference on Combustion Generated Nanoparticles, ETH Zürich, August 13-15, TTM.A.Mayer.
- Kayler, Z., M. Saurer, and R. T. W. Siegwolf, 2007:
Discovering the Importance of Bi-directional Water Fluxes in Leaves.
AGU meeting (American Geophysical Union), San Francisco, USA.
- Kazantidis, A., A. Bais, S. Kazadzis, N. Kouremeti, D. Balis, E. Gianakaki, R. Schmidhauser, K. Kelektsgoglou, S. Rapsomanikis, and R. M. Hu, 2007:
The aerosol single scattering albedo during the SCOUT-O3 Aerosol-UV radiation campaign.
A UV Conference celebrating one century of UV Radiation Research, Davos.
- Keller, J., Ş. Andreani-Aksoyoglu, A. S. H. Prévôt, J. J. Sloan, Z. He, and N. Foppa, 2007:
Meteorological Modeling of Winter and Summer Periods for the Swiss-Canadian Research Project on Aerosol Modeling (SCRAM).
6th International Conference on Urban Air Quality, Limassol (CYP), March 27-29, University of Hertfordshire, University of Cyprus, C2.14.
- Keller, J., S. Bojinski, and A. S. H. Prevot, 2007:
Simultaneous retrieval of aerosol and surface optical properties using Multi-angle Imaging SpectroRadiometer (MISR) data.
10th International Symposium on Physical Measurements and Spectral Signatures in Remote Sensing, Davos.
- Keller, J., S. Bojinski, and A. S. H. Prevot, 2007:

Simultaneous retrieval of aerosol and surface optical properties using Multi-angle Imaging SpectroRadiometer (MISR) data.

10th International Symposium on Physical Measurements and Spectral Signatures in Remote Sensing, Davos, March 12-14, ISPRS WG VII/1.

Metzger, A., A. Brunner, A. Gascho, J. Dommen, and U. Baltensperger, 2007:

Isoprene Photooxidation Product Study using Proton-Transfer-Reaction Mass Spectrometry (PTRMS) and a coupling of Gas Chromatography and PTRMS.

3rd International PTR-MS Conference 2007, Obergurgl, Austria.

Metzger, A., B. Verheggen, J. Duplissy, J. Dommen, A. S. H. Prevot, and U. Baltensperger, 2007:

INFLUENCE OF SULFUR DIOXIDE (SO₂) ON NUCLEATION, GROWTH AND YIELD OF SECONDARY ORGANIC AEROSOL (SOA).

EUCAARI yearly meeting 2007, Helsinki, Finnland

Metzger, A., B. Verheggen, J. Duplissy, J. Dommen, E. Weingartner, A. S. H. Prevot, and U. Baltensperger, 2007:
Aerosol Formation from Isoprene.

European Aerosol Conference (EAC), Salzburg, Austria.

Neftel, A., C. Ammann, A. Brunner, A. Jocher, C. Spirig, B. Davidson, J. Rinne, and J. Dommen, 2007:

Comparison of different approaches to measure VOC exchange over grassland by PTR-MS.

3rd International PTR-MS Conference, Obergurgl, Austria, January 27 - February 1, Innsbruck University Press, 80-84.

Nemitz, E., R. Thomas, C. Di Marco, G. Phillips, W. Aas, M. R. Alfarra, A. S. H. Prévôt, U. Baltensperger, R. Otjes, J. W. Erisman, A. Laaksonen, J. Rautiainen, and L. Poulain, 2007:

Highly time-resolved measurements of inorganic reactive gases and aerosols across Europe during the EMEP intensive measurement campaigns 2006/7.

2nd ACCENT Symposium, Urbino Italy.

Perron, N., N. M. Wehrli, S. Szidat, J. Sandradewi, A. S. H. Prevot, and U. Baltensperger, 2007:

Source apportionment of PM₁₀ carbonaceous aerosols in winter 2005/2006 in Swiss rural and urban sites using radiocarbon analyses of the EC and OC fractions.

European Geosciences Union (EGU), Vienna, Austria.

Rose, D., G. P. Frank, U. Dusek, M. Gysel, E. Weingartner, S. Walter, J. Curtius, and U. Pöschl, 2007:

Cloud condensation nuclei (CCN) concentrations and efficiencies on Jungfraujoch during the CLACE-5 campaign.

European Geosciences Union (EGU) Vienna, Austria, Poster.

Sandradewi, J., M. R. Alfarra, A. S. H. Prévôt, E. Weingartner, M. Gysel, R. Schmidhauser, S. Szidat, and U. Baltensperger, 2007:

Wood burning aerosol during winter in an Alpine valley: Aethalometer and the Aerosol Mass Spectrometer measurements.

European Aerosol Conference (EAC), Salzburg, Austria, POSTER (es gibt zitierbares conference abstract dazu).

Schmidhauser, R., S. Rapsomanikis, E. Weingartner, and A. Bais, 2007:

Ground based measurements of scattering and absorption coefficients at Thessaloniki.

A UV Conference celebrating one century of UV Radiation Research, Davos

Schmidhauser, R., G. Wehrle, T. Ulrich, E. Weingartner, and U. Baltensperger, 2007:

Aerosol light scattering at high relative humidity.

Aerosols - Properties, Processes and Climate (APPC), ESF - INTROP conference, Heraklion, Crete, Greece.

Schneider, J., S. Walter, J. Curtius, F. Drewnick, S. Borrmann, S. Mertes, E. Weingartner, M. Gysel, and J. Cozic, 2007:

In-situ analysis of free tropospheric aerosol and small ice crystal residuals using a high resolution aerosol mass spectrometer (HR-ToF-AMS) at Jungfraujoch during CLACE 5.

European Geosciences Union (EGU), Vienna, Austria, poster.

Sloan, J. J., S. Taghavi, S. Nikzad, Z. He, S. Andreani-Aksoyoglu, J. Keller, and J. Brook, 2007:

Regional air quality model simulations for the Swiss-Canadian research on aerosol modelling (SCRAM) project.

Urban Air Quality, Limassol, Cyprus, March 27-29.

Swietlicki, E., H.-C. Hansson, A. Massling, T. Petäjä, P. Tunved, K. Hämeri, E. Weingartner, U. Baltensperger, P. H. McMurry, G. McFiggans, B. Svenningsson, A. Wiedensohler, and M. Kulmala, 2007:

Hygroscopic properties of sub-micrometer atmospheric aerosol particles measured with H-TDMA instruments in various environments - A review.

European Aerosol Conference (EAC), Salzburg, Austria, POSTER (es gibt zitierbares conference abstract dazu).

Targino, A. C., K. Bower, T. W. Choularton, H. Coe, J. Crosier, I. Crawford, M. W. Gallagher, M. Flynn, J. Cozic, B. Verheggen, E. Weingartner, and U. Baltensperger, 2007:

Particle chemical composition measured at a high alpine field station in Switzerland: Impact on the phase of cold clouds.

European Aerosol Conference (EAC), Salzburg, Austria, POSTER (es gibt zitierbares conference abstract dazu).

Verheggen, B., A. Metzger, J. Duplissy, J. Dommen, E. Weingartner, A. S. H. Prevot, and U. Baltensperger, 2007:
Aerosol Formation from Isoprene.

European Aerosol Conference 2007, European Aerosol Conference (EAC), Salzburg, Austria, T01A021.

Weimer, S., M. R. Alfarra, D. Schreiber, M. Mohr, and A. S. H. Prevot, 2007:

Characterisation of the mass spectra of fine particulate matter from wood burning emissions.

11th ETH Conference on Combustion generated Nanoparticles, ETH Zürich.

Weingartner, E., 2007:

IGBP-WCRP Aerosols, Clouds, Precipitation and Climate Initiative (ACPC).

iLEAPS-IGAC-GEWEX Workshop, NCAR, Boulder, Colorado, USA.

Weingartner, E., J. Cozic, B. Verheggen, U. Baltensperger, S. Mertes, S. Walter, J. Schneider, and J. Curtius, 2007:
Impact of black carbon on climate: Interaction of soot containing particles with clouds.

11th ETH-Conference on Combustion Generated Nanoparticles, ETH Zürich, August 13-15.

Wiegner, M., B. Heese, V. Freudenthaler, D. Balis, T. Ruhtz, M. Blumthaler, and R. Schmidhauser, 2007:

The SCOUT UV-Aerosol campaign 2006: Vertical distribution of aerosols from airborne lidar measurements.

A UV Conference celebrating one century of UV Radiation Research, Davos.

Worringen, A., N. Benker, M. Ebert, F. Zimmermann, S. Mertes, E. Weingartner, and S. Weinbruch, 2007:

Characterization of ice residuals from the CLACE 5 experiment.

European Aerosol Conference (EAC), Salzburg, Austria, POSTER (es gibt zitierbares conference abstract dazu).

Theses 2007

Cozic, J., 2007:

Aerosol properties of the free troposphere and their interference with mixed-phase clouds.

PhD Thesis, University Bern, Bern, 213 pp.

Reynolds-Henne, C. E., 2007:

Climate-isotope relationships in trees under non-limiting climatic conditions from seasonal to century scales.

PhD Thesis, University of Bern, Bern, pp.

Sjogren, S., 2007:

Hygroscopic properties of organic and inorganic aerosols.

PhD Thesis, ETH, Zürich, pp.

Other Publications, Reports 2007

Prévôt, A., M. R. Alfarra, S. Szidat, M. Wehrli, V. A. Lanz, S. Weimer, H. A. Synal, J. Sandradewi, and U. Baltensperger, 2007:

Feinstaub in Reiden und Sedel im Januar/Februar 2006.

Paul Scherrer Institut, Villigen PSI, Switzerland, 25 pp. ([pdf file](#), 2 MB)

last updated: 2008-10-15

a Paul Scherrer Institute Site. All rights reserved.