

Publication list

- 57 Refereed publications (42 Jungfraujoeh and Gornergrat cited)
- 77 Conference presentations / posters
- 3 Books / edited books
- 9 Theses
- 9 Data books and reports

Refereed publications

Baltensperger, U., Aerosols in clearer focus, *Science* **329**, 1474-1475, 2010.
<http://dx.doi.org/10.1126/science.1192930>

Battipaglia, Giovanna, Veronica de Micco, Willi A. Brand, Petra Linke, Giovanna Aronne, Matthias Saurer, and Paolo Cherubini, Variations of vessel diameter and $\delta^{13}\text{C}$ in false rings of *Arbutus unedo* L. reflect different environmental conditions, *New Phytologist* (2010) **188**: 1099–1112
doi: 10.1111/j.1469-8137.2010.03443.x

Bommer, C., Phillips, M., Arenson, L. (2010). Practical recommendations for planning, constructing and maintaining infrastructure in mountain permafrost. *Short Communication, Permafrost and Periglacial Processes* **21**: 97-104.
DOI: 10.1002/ppp.679. <Go to ISI>://WOS:000275776100009

Boulon, J., Sellegri, K., Venzac, H., Picard, D., Weingartner, E., Wehrle, G., Collaud Coen, M., Bütkofer, R., Flückiger, E., Baltensperger, U., and Laj, P.: New particle formation and ultrafine charged aerosol climatology at a high altitude site in the Alps (Jungfraujoeh, 3580 m a.s.l., Switzerland), *Atmos. Chem. Phys.* **10**, 9333-9349, 2010.
<http://dx.doi.org/10.5194/acp-10-9333-2010>

Brand, W. A., Comments on “Discrepancies between isotope ratio infrared spectroscopy and isotope ratio mass spectrometry for the stable isotope analysis of plant and soil waters”, *Rapid Comm. Mass Spectrom.* 2010, 24: 2687-2688

Brand, Willi A., Sergey S. Assonov, Tyler B. Coplen, Correction for the ^{17}O interference in $\delta^{13}\text{C}$ determinations when analyzing CO_2 with stable isotope mass spectrometry, (IUPAC Technical Report), *Pure Appl. Chem.*, 2010; **82** (8), 1719–1733, (doi:10.1351/PAC-REP-09-01-05)

Bütkofer, R., E.O. Flückiger, Radiation doses along selected flight profiles during two extreme solar cosmic ray events, accepted for publication in *Astrophys. Space Sci. Trans.*, 2010.

Calogovic, J., C. Albert, F. Arnold, J. Beer, L. Desorgher, and E. O. Flueckiger (2010), Sudden cosmic ray decreases: No change of global cloud cover, *Geophys. Res. Lett.*, **37**, L03802,
doi:10.1029/2009GL041327. <Go to ISI>://WOS:000274355700001

Chen, C., Huang, M, Radiation-driven implosion in the Cepheus B molecular cloud, *Research in Astronomy&Astrophysics*, **10**, issue 8, 777-784, 2010

Chevallier, F., P. Ciaais, T.J. Conway, T. Aalto, B.E. Anderson, P. Bousquet, E.G. Brunke, L. Ciattaglia, Y. Esaki, M. Frohlich, A. Gomez, A.J. Gomez-Pelaez, L. Haszpra, P.B. Krummel, R.L. Langenfelds, M. Leuenberger, T. Machida, F. Maignan, H. Matsueda, J.A. Morgui, H. Mukai, T. Nakazawa, P. Peylin, M. Ramonet, L. Rivier, Y. Sawa, M. Schmidt, L.P. Steele, S.A. Vay, A.T. Vermeulen, S. Wofsy, and

D. Worthy, CO₂ surface fluxes at grid point scale estimated from a global 21 year reanalysis of atmospheric measurements, *Journal of Geophysical Research-Atmospheres*, **115**, 2010. <Go to ISI>://WOS:000284219100003

Chou, C., O. Stetzer, E. Weingartner, Z. Jurányi, Z. A. Kanji, and U. Lohmann: “Ice nuclei properties within a Saharan Dust Event at the Jungfraujoch”, *Atmospheric Chemistry and Physics Discussion*, **10**, 23705-23738, 2010.

<http://www.atmos-chem-phys-discuss.net/10/23705/2010/acpd-10-23705-2010.html>

Clémer, K., M. Van Roozendaal, C. Fayt, F. Hendrick, C. Hermans, G. Pinardi, R. Spurr, P. Wang, and M. De Mazière, Multiple wavelength retrieval of tropospheric aerosol optical properties from MAXDOAS measurements in Beijing, *Atmos. Meas. Tech.*, **3**, 863–878, 2010.

<http://www.atmos-meas-tech.net/3/863/2010/amt-3-863-2010.pdf>

Collaud Coen, M. C., Weingartner, E., Apituley, A., Ceburnis, D., Fierz-Schmidhauser, R., Flentje, H., Henzing, J. S., Jennings, S. G., Moerman, M., Petzold, A., Schmid, O., and Baltensperger, U.: Minimizing light absorption measurement artifacts of the Aethalometer: evaluation of five correction algorithms, *Atmos. Meas. Tech.* **3**, 457-474, 2010.

<http://dx.doi.org/10.5194/amt-3-457-2010>

Corazza M., Bergamaschi, P., Vermeulen, A.T., Aalto, T., Haszpra, L., Meinhardt, F., O'Doherty, S., Thompson, R., Moncrieff, J., Popa, E., Steinbacher, M., Jordan, A., Dlugokencky, E.J., Brühl, C., Krol, M., Dentener, F., Inverse modelling of European N₂O emissions: assimilating observations from different networks, *Atmospheric Chemistry and Physics Discussions*, **10**, 26319-26359, 2010.

<http://www.atmos-chem-phys-discuss.net/10/26319/2010/acpd-10-26319-2010.html>

de Laat, A.T.J., A.M.S. Gloudemans, H. Schrijver, I. Aben, Y. Nagahama, K. Suzuki, E. Mahieu, N.B. Jones, C. Paton-Walsh, N.M. Deutscher, D.W.T. Griffith, M. De Mazière, R. Mittelmeier, H. Fast, J. Notholt, M Palm, T. Hawat, T. Blumenstock, C. Rinsland, A.V. Dzhola, E.I. Grechko, A.M., Poberovskii, M.V. Makarova, J. Mellqvist, A. Strandberg, R. Sussmann, T. Borsdorff, and M. Rettinger, Validation of five years (2003-2007) of SCIAMACHY CO total column measurements using ground-based spectrometer observations, *Atmos. Meas. Tech.*, **3**, 1457-1471, 2010; <http://www.atmos-meas-tech.net/3/1457/2010/amt-3-1457-2010.pdf>

Duchatelet P., P. Demoulin, F. Hase, R. Ruhnke, W. Feng, M. P. Chipperfield, P. F. Bernath, C. D. Boone, K. A. Walker, E. Mahieu, Hydrogen fluoride total and partial column time series above the Jungfraujoch from long-term FTIR measurements: Impact of the line-shape model, characterization of the error budget and seasonal cycle, and comparison with satellite and model data, *J. Geophys. Res.*, **115**, D22306, doi10.1029/2010JD014677, 2010a.

<http://www.agu.org/pubs/crossref/2010/2010JD014677.shtml>

Duplissy, J., P. F. DeCarlo, J. Dommen, M. R. Alfarra, A. Metzger, I. Barnpadimos, A. S. H. Prevot, E. Weingartner, T. Tritscher, M. Gysel, A. C. Aiken, J. L. Jimenez, M. R. Canagaratna, D. R. Worsnop, D. R. Collins, J. Tomlinson, and U. Baltensperger (2010), Relating hygroscopicity and composition of organic aerosol particulate matter, *Atmos. Chem. Phys. Discuss.* **10**, 19309-19341, 2010.

<http://dx.doi.org/10.5194/acpd-10-19309-2010>

Ebert, M., A. Worringen, N. Benker, S. Mertes, E. Weingartner, and S. Weinbruch, Chemical composition and mixing-state of ice residuals sampled within mixed phase clouds, *Atmos. Chem. Phys. Discuss.* **10**, 23865-23894, 2010.

<http://dx.doi.org/10.5194/acpd-10-23865-2010>

Fierz-Schmidhauser, R., Zieger, P., Gysel, M., Kammermann, L., DeCarlo, P. F., Baltensperger, U., and Weingartner, E.: Measured and predicted aerosol light scattering enhancement factors at the high alpine site Jungfraujoch, *Atmos. Chem. Phys.* **10**, 2319-2333, 2010.

<http://dx.doi.org/10.5194/acp-10-2319-2010>

Fierz-Schmidhauser, R., Zieger, P., Wehre, G., Jefferson, A., Ogren, J. A., Baltensperger, U., and Weingartner, E.: Measurement of relative humidity dependent light scattering of aerosols, *Atmos. Meas. Tech.* **3**, 39-50, 2010.

<http://dx.doi.org/10.5194/amt-3-39-2010>

Gilge S., Plass-Duelmer, C., Fricke, W., Kaiser, A., Ries, L., Buchmann, B., Steinbacher, M., Ozone, Carbon monoxide and Nitrogen oxides time series at four Alpine GAW mountain stations in Central Europe, *Atmospheric Chemistry and Physics*, **10**, 12295-12316, 2010.

<http://www.atmos-chem-phys.net/10/12295/2010/acp-10-12295-2010.html>

Hendrick, F., J.-P. Pommereau, F. Goutail, R. D. Evans, D. Ionov, A. Pazmino, E. Kyrö, G. Held, P. Eriksen, V. Dorokhov, M. Gil, and M. Van Roozendaal, NDACC UV-visible total ozone measurements: Improved retrieval and comparison with correlative satellite and ground-based observations, *Atmos. Chem. Phys. Discuss.*, **10**, 20405-20460, 2010.

<http://www.atmos-chem-phys-discuss.net/10/20405/2010/acpd-10-20405-2010.pdf>

Huss, M., Hock, R., Bauder, A. and Funk, M., The 100-year glacier mass changes in the Swiss Alps linked to the Atlantic Multidecadal Oscillation. *Geophysical Research Letters*, **37**, L10501, 2010, DOI:10.1029/2010GL042616.

<http://dx.doi.org/10.1029/2010GL042616>

Irie, H., H. Takashima, Y. Kanaya, K. F. Boersma, L. Gast, F. Wittrock, D. Brunner, Y. Zhou, and M. Van Roozendaal, Eight-component retrievals from ground-based MAX-DOAS observations, submitted to *Atmos. Meas. Tech.* (2010)

Jurányi, Z., Gysel, M., Weingartner, E., DeCarlo, P. F., Kammermann, L., and Baltensperger, U.: Measured and modelled cloud condensation nuclei concentration at the high alpine site Jungfraujoch, *Atmos. Chem. Phys.* **10**, 7891-7906, 2010.

<http://dx.doi.org/10.5194/acp-10-7891-2010>

Kammermann, L., Gysel, M., Weingartner, E., and Baltensperger, U.: 13-month climatology of the aerosol hygroscopicity at the free tropospheric site Jungfraujoch (3580 m a.s.l.), *Atmos. Chem. Phys.* **10**, 10717-10732, 2010.

<http://dx.doi.org/10.5194/acp-10-10717-2010>

Kong, Shuo, Wu, Yuefang, Inclination-angle of the outflow in IRAS 05553+1631: A method to correct the projection effect, accepted by the *Monthly Notices of the Royal Astronomical Society*, <http://adsabs.harvard.edu/abs/2010arXiv1012.3268K>

Levin, I., Naegler, T., Kromer, B., Cuevas, E., Diehl, M., Francey, R., Gomez-Pelaez, A.J., Schäfer, A., Steele, L.P., Wagenbach, D., Weller, R., and Worthy, D.E.,

Observations and modelling of the global distribution and long-term trend of atmospheric $^{14}\text{CO}_2$. *Tellus* **62B**, 26-46, 2010
doi: 10.1111/j.1600-0889.2009.00446.x.

Liu, D., Flynn, M., Gysel, M., Targino, A., Crawford, I., Bower, K., Choularton, T., Juranyi, Z., Steinbacher, M., Hueglin, C., Curtius, J., Kampus, M., Petzold, A., Weingartner, E., Baltensperger, U., Coe, H., Single particle characterization of black carbon aerosols at a tropospheric alpine site in Switzerland. *Atmospheric Chemistry and Physics*, **10**, 7389-7407, 2010.

<http://www.atmos-chem-phys.net/10/7389/2010/acp-10-7389-2010.html>

Lloyd J, Patiño S, Paiva RQ, Nardoto GB, Quesada CA, Santos AJB, Baker TR, Brand WA, Hilke I, Geilmann H, Raessler M, Luizão FJ, Martinelli LA and Mercado LM, Optimisation of photosynthetic carbon gain and within-canopy gradients of associated foliar traits for Amazon forest trees. *Biogeosciences* 2010; **7**: 1833–1859, doi:10.5194/bg-7-1833-2010

Loyola, D. G., M. E. Koukouli, P. Valks, D. S. Balis, N. Hao, M. Van Roozendaal, R. J. D. Spurr, W. Zimmer, S. Kiemle, C. Lerot, J-C. Lambert, The GOME-2 Total Column Ozone Product: 1 Retrieval Algorithm and Ground-Based Validation, accepted for publication in *J. Geophys. Res.* (2010).

Lüthi, M., and Bauder, A., Analysis of Alpine glacier length change records with a macroscopic glacier model. *Geographica Helvetica*, **65(2)**, 92-102, 2010.

Lüthi, M., Bauder, A. and Funk, M., Volume change reconstruction of Swiss glaciers from length change data. *Journal of Geophysical Research*, **115**, F04022, 2010, DOI:10.1029/2010JF001695.

<http://dx.doi.org/10.1029/2010JF001695>

Manninen, H. E., Nieminen, T., Asmi, E., Gagné, S., Häkkinen, S., Lehtipalo, K., Aalto, P., Vana, M., Mirme, A., Mirme, S., Hörrak, U., Plass-Dülmer, C., Stange, G., Kiss, G., Hoffer, A., Töro, N., Moerman, M., Henzing, B., de Leeuw, G., Brinkenberg, M., Kouvarakis, G. N., Bougiatioti, A., Mihalopoulos, N., O'Dowd, C., Ceburnis, D., Arneth, A., Svenningsson, B., Swietlicki, E., Tarozzi, L., Decesari, S., Facchini, M. C., Birmili, W., Sonntag, A., Wiedensohler, A., Boulon, J., Sellegri, K., Laj, P., Gysel, M., Bukowiecki, N., Weingartner, E., Wehrle, G., Laaksonen, A., Hamed, A., Joutsensaari, J., Petäjä, T., Kerminen, V.-M., and Kulmala, M.: EUCAARI ion spectrometer measurements at 12 European sites – analysis of new particle formation events, *Atmos. Chem. Phys.* **10**, 7907-7927, 2010.

<http://dx.doi.org/10.5194/acp-10-7907-2010>

Pellicciotti, F., Bauder, A. and Parola, M., Effect of glaciers on streamflow trends in the Swiss Alps. *Water Resources Research*, **46(10)**, W10522, 2010, DOI:10.1029/2009WR009039.

<http://dx.doi.org/10.1029/2009WR009039>

Peters, W., M. C. Krol, G. R. van der Werf, S. Houwelings, C. D. Jones, J. Hughes, K. Schaefer, K. A. Masarie, A. R. Jacobson, J. B. Miller, C. H. Cho, M. Ramonet, M. Schmidt, L. Ciattaglia, F. Apadula, D. Heltai, F. Meinhardt, A. G. di Sarra, S. Piacentino, D. Sferlazzo, T. Aalto, J. Hatakka, J. Ström, L. Haszpra, H. A. J. Meijer, S. van der Laan, R. E. M. Neubert, A. Jordan, X. Rodó, J.-A. Morguá, A. T. Vermeulen, E. Popa, K. Rozanski, M. Zimnoch, A. C. Manning, M. Leuenberger, C. Uglietti, A. J. Dolman, P. Ciais, M. Heimann and P. P. Tans, Seven years of recent

European net terrestrial carbon dioxide exchange constrained by atmospheric observations, *Global Change Biology* (2010) **16**, 1317-1337, doi : 10.1111/j.1365-2486.2009.02078.x

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2486.2009.02078.x/abstract>

Qi, Haiping, Manfred Gröning, Tyler B. Coplen, Bryan Buck, Stanley J. Mroczkowski, Willi A. Brand, Heike Geilmann, and Matthias Gehre, Novel silver tubing method for quantitative introduction of water into high temperature conversion systems for stable hydrogen and oxygen isotopic measurements, *Rapid Comm. Mass Spectrom.* 2010; **24**: 1821-18277

(<http://www3.interscience.wiley.com/journal/123491150/abstract>)

Quesada CA, Lloyd J, Schwarz M, Patiño S, Baker TR, Czimczik C, Fyllas NM, Martinelli L, Nardoto GB, Schmerler J, Santos AJB, Hodnett MG, Herrera R, Luizão FJ, Arneeth A, Lloyd G, Dezzio N, Hilke I, Kuhlmann I, Raessler M, Brand WA, Geilmann H, Moraes Filho JO, Carvalho FP, Araujo Filho RN, Chaves JE, Cruz Junior OF, Pimentel TP and Paiva R Variations in chemical and physical properties of Amazon forest soils in relation to their genesis. *Biogeosciences* 2010, **7**:1515-1542

Riesen, P., Sugiyama, S and Funk, M., The influence of the presence and drainage of an ice-marginal lake on the ice flow of Gornergletscher, Switzerland. *Journal of Glaciology*, **56(196)**, 278-286, 2010.

<http://www.igsoc.org/journal/56/196/t09J112.pdf>

Rigby, M. Mühle, J., Miller, B. R., Prinn R. G., Krummel, P. B., Steele, L. P., Fraser, P. J., Salameh, P. K., Harth, C. M., Weiss, R. F., Grealley, B. R., O'Doherty, S., Simmonds, P. G., Vollmer, M. K., Reimann, S., Kim, K., Kim, K. R., Wand, H. J., Dluogency, E. J., Dutton, G. S., Elkins, J. W., History of atmospheric SF₆ from 1973 – 2008, *Atmos. Chem. Phys.* **10**, 10305 – 10320.

<http://www.atmos-chem-phys.net/10/10305/2010/acp-10-10305-2010.pdf>

Röckmann, Thomas, Catalina X. Gómez Álvarez, Sylvia Walter, Carina van der Veen, Adam G. Wollny, Sachin Gunthe, Günther Helas, Ulrich Pöschl, Frank Keppler, Markus Greule and Willi A. Brand, Isotopic composition of H₂ from wood burning: Dependency on combustion efficiency, moisture content and δD of local precipitation, *J. Geophys. Research* **115** (2010), D17308, 1-11

(doi:10.1029/2009JD013188)

Roscoe, H.K., M. Van Roozendaal, C. Fayt, A. du Piesanie, N. Abusallah, C. Adams, M. Akrami, I. Alonso Calvo, A. Cede, J. Chong, K. Clemer, U. Friess, M. Gil Ojeda, F. Goutail, R. Graves, A. Griesfeller, K. Grossmann, G. Hemerijckx, F. Hendrick, J. Herman, C. Hermans, H. Irie, Y. Kanaya, K. Kreher, P. Johnston, R. Leigh, A. Merlaud, G. H. Mount, M. Navarro, H. Oetjen, A. Pazmino, E. Peters, G. Pinardi, O. Puentedura, A. Richter, A. Schönhardt, R. Shaiganfar, E. Spinei, K. Strong, H. Takashima, T. Vlemmix, M. Vrekoussis, T. Wagner, F. Wittrock, M. Yela, S. Yilmaz, F. Boersma, J. Hains, M. Kroon, A. Piters, Intercomparison of slant column measurements of NO₂ and O₄ by MAX-DOAS and zenith-sky UV and visible spectrometers, *Atmos. Meas. Tech.*, **3**, 1629-1646, 2010.

<http://www.atmos-meas-tech.net/3/1629/2010/amt-3-1629-2010.pdf>

Roux, P.F., Walter, F., Riesen, P., Sugiyama, S and Funk, M., Observation of surface seismic activity changes of an alpine glacier during a glacier-dammed lake outburst. *Journal of Geophysical Research*, **115(F3)**, F03014, 2010, DOI:10.1029/2009JF001535.

<http://dx.doi.org/10.1029/2009JF001535>

Ruckstuhl A.F., Henne, S., Reimann, S., Steinbacher, M., Buchmann, B., Hueglin, C., Robust extraction of baseline signal of atmospheric trace species using local regression, *Atmospheric Measurement Techniques Discussions*, **3**, 5589-5612, 2010.

<http://www.atmos-meas-tech-discuss.net/3/5589/2010/amtd-3-5589-2010.html>

Spracklen, D. V., K. S. Carslaw, J. Merikanto, G. W. Mann, C. L. Reddington, S. Pickering, J. A. Ogren, E. Andrews, U. Baltensperger, E. Weingartner, M. Boy, M. Kulmala, L. Laakso, H. Lihavainen, N. Kivekas, M. Komppula, N. Mihalopoulos, G. Kouvarakis, S. G. Jennings, C. O'Dowd, W. Birmili, A. Wiedensohler, R. Weller, J. Gras, P. Laj, K. Sellegri, B. Bonn, R. Krejci, A. Laaksonen, A. Hamed, A. Minikin, R. M. Harrison, R. Talbot, and J. Sun (2010), Explaining global surface aerosol number concentrations in terms of primary emissions and particle formation, *Atmos. Chem. Phys.* **10**, 4775-4793, 2010.

<http://dx.doi.org/10.5194/acp-10-4775-2010>

Stohl, A., J. Kim, S. Li, S. O'Doherty, J. Mühle, P. K. Salameh, T. Saito, M. K. Vollmer, D. Wan, R. F. Weiss, B. Yao, Y. Yokouchi, L. X. Zhou, 2010. Hydrochlorofluorocarbon and hydrofluorocarbon emissions in East Asia determined by inverse modeling, *Atmos. Chem. Phys.*, **10**, 3545 – 3560.

<http://www.atmos-chem-phys.net/10/3545/2010/acp-10-3545-2010.pdf>

Sugiyama, S., Bauder, A., Riesen, P. and Funk, M., Surface ice motion deviating toward the margins during speed-up events at Gornergletscher, Switzerland. *Journal of Geophysical Research*, **115(F3)**, F03010, 2010, DOI:10.1029/2009JF001509.

<http://dx.doi.org/10.1029/2009JF001509>

Theys, N., M. Van Roozendaal, F. Hendrick, I. De Smedt, Q. Errera, A. Richter, M. Begoin, X. Yang and M. De Mazière, Global observations of BrO in the troposphere using GOME-2 satellite data, *Atmos. Chem. Phys. Discuss.*, **10**, 28635-28685, 2010.

<http://www.atmos-chem-phys-discuss.net/10/28635/2010/acpd-10-28635-2010.pdf>

Tuzson, B., Henne, S., Brunner, D., Steinbacher, M., Mohn, J., Buchmann, B. and Emmenegger, L. (2010). Continuous isotopic composition measurements of tropospheric CO₂ at Jungfrauoch (3580ma.s.l.), Switzerland: real-time observation of regional pollution events. *Atmos. Chem. Phys. Discuss.* **10**: 24563–24593, doi:10.5194/acpd-10-24563-2010.

<http://www.atmos-chem-phys-discuss.net/10/24563/2010/acpd-10-24563-2010.pdf>

Vigano, I., T. Röckmann, R. Holzinger, F. Keppler, M. Greule, W.A. Brand, H. Geilmann, H. van Weelden, Water drives the deuterium content of the methane emitted from plants, *Geochimica et Cosmochimica Acta* **74** (2010) 3865–3873 (<http://dx.doi.org/10.1016/j.gca.2010.03.030>)

Walter, F., Dreger, D.S., Clinton, J.F., Deichmann, N. and Funk, M., Evidence for near-horizontal tensile faulting at the base of Gornergletscher, a Swiss alpine glacier. *Bulletin of the Seismological Society of America*, **100(2)**, 458-472, 2010.

<http://bssa.geoscienceworld.org/cgi/content/abstract/100/2/458?stoc>

Wendeberg, Magnus and Willi A. Brand, "Isotope ratio mass spectrometry (IRMS) of light elements (C, H, O, N, S): The principles and characteristics of the IRMS instrument" in Encyclopedia of Mass Spectrometry Vol 5, ed. Diane Beauchemin and Dwight E. Matthews, Elsevier, Amsterdam (2010), pp 739-748; ISBN-13: 978-0080438047;

Werder, M.A., Schuler, T.V. and Funk, M., Short term variations of tracer transit speed on alpine glaciers. *The Cryosphere*, **4**, 381-396, 2010.
<http://www.the-cryosphere.net/4/381/2010/tc-4-381-2010.html>

Xiao, X., R. G. Prinn, P. J. Fraser, P. G. Simmonds, R. F. Weiss, S. O'Doherty, B. R. Miller, P. K. Salameh, C. M. Harth, P. B. Krummel, L. W. Porter, J. Mühle, B. R. Grealley, D. Cunnold, R. Wang, S. A. Montzka, J. W. Elkins, G. S. Dutton, T. M. Thompson, J. H. Butler, B. D. Hall, S. Reimann, M. K. Vollmer, F. Stordal, C. Lunder, M. Maione, J. Arduini, and Y. Yokouchi, 2010. Optimal estimation of the surface fluxes of methyl chloride using a 3-D global chemical transport model, *Atmos. Chem. Phys.*, **10**, 5515-5533.
<http://www.atmos-chem-phys.net/10/5515/2010/acp-10-5515-2010.pdf>

Xu, J.L., Wang, J.J., Submillimeter/millimeter observations of the high-mass star forming region IRAS22506+5944, *Research in Astronomy and Astrophysics*, **10**, issue 2, pp. 151-158 (2010)

Xu, Jin-Long, Wang, Jun-Jie, Miller, Martin Submillimeter/millimeter observations of the molecular clouds associated with the Tycho' Supernova Remnant, <http://adsabs.harvard.edu/abs/2010arXiv1012.2918X>

Yver, C., Pison, I., Fortems-Cheiney, A., Schmidt, M., Bousquet, P., Ramonet, M., Jordan, A., Søvde, A., Engel, A., Fisher, R., Lowry, D., Nisbet, E., Levin, I., Hammer, S., Necki, J., Bartyzel, J., Reimann, S., Vollmer, M. K., Steinbacher, M., Aalto, T., Maione, M., Arduini, I., O'Doherty, S., Grant, A., Sturges, W., Lunder, C. R., Privalov, V., Paramonova, N., A new estimation of the recent tropospheric molecular hydrogen budget using atmospheric observations and variational inversion, *Atmos. Chem. Phys. Discuss.*, **10**, 28963-29005, 2010.
<http://www.atmos-chem-phys-discuss.net/10/28963/2010/acpd-10-28963-2010.pdf>

Zander, R., P. Duchatelet, E. Mahieu, P. Demoulin, G. Roland, C. Servais, J. Vander Auwera, A. Perrin, C.P. Rinsland, and P. Crutzen, Formic acid above the Jungfrauoch during 1985-2007: observed variability, seasonality, but no long-term background evolution, *Atmos. Chem. Phys.*, **10**, 10047-10065, doi:10.5194/acp-10-10047-2010, 2010.
<http://www.atmos-chem-phys.net/10/10047/2010/acp-10-10047-2010.pdf>

Conference presentations / Posters

Baltensperger, U.: Determination of physical and chemical properties of volcanic ash aerosol in the context of the FP6 projects EUSAAR, EARLINET and EUCAARI, AERONET II Workshop, Brussels, Belgium, June 30 – July 1, 2010.
<http://www.aero-net.info/>

Baltensperger, U.: In-situ measurements of physical and chemical properties of the volcanic ash aerosol from the Eyjafjoll volcano eruption, European Geosciences Union, General Assembly 2010, Vienna, Austria, May 2-7, 2010.
<http://meetings.copernicus.org/egu2010/>

Baltensperger, U.: Influence of physico-chemical properties on aerosol-cloud interaction: results from the high elevation site Jungfraujoch and the PSI smog chamber, Telluride Workshop, Telluride, USA, August 2-6, 2010.
<http://www.telluridescience.org/>

Baltensperger, U.: Mountain sites as an important infrastructure for the impact assessment of volcanic ash, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, June 8-10 2010.
<http://acp.scnat.ch/e/news/events/2010/>

Baltensperger, U.: Physical and chemical properties of the volcanic ash aerosol from the Eyjafjöll volcano eruption. American Geophysical Union, San Francisco, CA, USA, December 13-17, 2010.

Baltensperger, U.: Physical and chemical properties of the volcanic ash aerosol from the Eyjafjöll volcano eruption. International Aerosol Conference, Helsinki, Finland, August 29 – September 3, 2010.
<http://www.iac2010.fi/>
<http://www.agu.org/meetings/fm10/>

Balzani Lööv, J.M., S. Henne, G. Legreid, J. Staehelin, S. Reimann, A.S.H. Prevot, M. Steinbacher, and M.K. Vollmer, Estimation of background concentrations of trace gases at the Swiss Alpine site Jungfraujoch (3580 m asl, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, CH, 8 – 10 June 2010.

Bergamaschi, P., M. Corazza, A. Vermeulen, A. Manning, M. Athanassiadou, P. Bousquet, R. Thompson, M. Heimann, K. Trusilova, E. Popa, L. Haszpra, J. Mocrieff, R. Neubert, E. Nisbet, T. Alto, F. Meinhardt, L. Ries, M. Steinbacher, F. Artuso, and E. Dlugokencky, Inverse modeling of European CH₄ and N₂O emissions, Nitrogen and the European Greenhouse Gas Balance, Solothurn, CH, 3 – 4 February 2010.

Brockmann E., D. Ineichen, M. Kistler, U. Marti, S. Schaer, A. Schlatter, B. Vogel, A. Wiget, U. Wild (2010): Geodetic activities at swisstopo presented to the EUREF2010 Symposium. In: Ihde, J. and H. Hornik (Eds): Subcommission for the European Reference Frame (EUREF), Gaevele, June 2-4, 2010 (in prep.).

Brockmann E., D. Ineichen, S. Schaer, A. Schlatter (2010): Use of double stations in the Swiss Permanent GNSS Network AGNES. In: Ihde, J. and H. Hornik (Eds): Subcommission for the European Reference Frame (EUREF), Gaevele, June 2-4, 2010 (in prep.).

Brunner, D., S. Henne, J. Klausen, and B. Buchmann, A Global Lagrangian Model to Study Trace Gas Variability and Long Range Transport, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, 8 – 10 June 2010.

Buchmann, B., Integrated Carbon Observation System, Status Switzerland, ICOS Stakeholder Meeting, Helsinki, 31 May – 2 June 2010.

Buchmann, B., Reactive Gases and Greenhouse Gases at the GAW site Jungfraujoch, Earth Observation Programme Board, Jungfraujoch, 28 May 2010.

Bukowiecki, N.; Gysel, M.; Collaud Coen, M.; Jurányi, Z.; Zieger, P.; Wehrle, G.; Baltensperger, U.; Weingartner, U.: A comprehensive analysis of long-term particle

number size distribution measurements at Jungfraujoch, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, June 8-10 2010.

<http://acp.scnat.ch/e/news/events/2010/>

Bukowiecki, N.; Gysel, M.; Collaud Coen, M.; Jurányi, Z.; Zieger, P.; Wehrle, G.; Baltensperger, U.; Weingartner, U.: Long-term particle number size distribution measurements at Jungfraujoch, International Aerosol Conference, Helsinki, Finland, August 29 – September 3, 2010, Abstract P2H2.

<http://www.iac2010.fi/>

Chou, Cedric, O. Stetzer, E. Weingartner, Z. Jurányi, Z. A. Kanji, and U. Lohmann: "Measurements of IN properties at the Jungfraujoch using the Portable Ice Nucleation Chamber (PINC)", European Geosciences Union (EGU) General Assembly 2010, 2 – 7 May 2010 Vienna, Austria

Collaud Coen, M., E. Weingartner, S. Nyeki, M. Steinbacher and U. Baltensperger: Impact of synoptic weather types on the planetary boundary layer influence at the Jungfraujoch, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, June 8-10 2010.

<http://acp.scnat.ch/e/news/events/2010/>

Collaud Coen, M., E. Weingartner, S. Nyeki and U. Baltensperger: A 14 year long-term trend analysis of aerosol parameters at the Jungfraujoch, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, June 8-10 2010.

<http://acp.scnat.ch/e/news/events/2010/>

Dils, B., M. De Mazière, C. Vigouroux, F. Forster, R. Sussmann, T. Borsdorff, P. Bousquet, T. Blumenstock, M. Buchwitz, S. Dalsoren, P. Demoulin, P. Duchatelet, C. Frankenberg, J. Hannigan, F. Hase, I. Isaksen, N. Jones, J.Klyft, I. Kramer, E. Mahieu, J. Mellqvist, L. Neef, J. Notholt, K. Petersen, I. Pison, O. Schneising, A. Strandberg, K. Strong, S. Szopa, J. Taylor, P. van Velthoven, M. van Weele, and S. Wood, A comparison of Methane data products from Chemistry Transport Models, SCIAMACHY and a network of FTIR stations, oral presentation at the "EGU 2010 General Assembly", 2-7 May 2010, Vienna, Austria, 2010.

<http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010-4593.pdf>

Dinoev, T., I. Serikov, V. Simeonov, Y. Arshinov, S. Bobrovnikov, B. Calpini, H. van den Bergh, M. B. Parlange, "Temperature and aerosol backscatter ratio measurements with the Swiss Raman Lidar for meteorological applications", 25th International Laser Lidar Conference, 5 - 9 July 2010, St. Petersburg, Russia.

Duchatelet, P., P. Demoulin, F. Hase, E. Mahieu, P.F. Bernath, C.D. Boone, and K.A. Walker, Updating hydrogen fluoride (HF) FTIR time series above the Jungfraujoch: comparison of two retrieval algorithms and impact of line shape models, poster presented at the "EGU 2010 General Assembly", 2-7 May 2010, Vienna, Austria, 2010b.

<http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010-1354-2.pdf>

http://girpas.astro.ulg.ac.be/girpas/C2010/Poster_EGU_2010_HF.pdf

Duchatelet, P., E. Mahieu, R. Zander, and R. Sussmann, Trends of CO₂, CH₄ and N₂O over 1985-2010 from high-resolution FTIR solar observations at the Jungfraujoch station, poster presented at the “EGU 2010 General Assembly”, 2-7 May 2010, Vienna, Austria, 2010c.

<http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010-15418-2.pdf>

http://girpas.astro.ulg.ac.be/girpas/C2010/Poster_EGU_2010_GHG.pdf

Emmenegger, L., Tuzson, B., Mohn, J., Heeb, N., Brunner, D., Steinbacher, M. and Buchmann, B. (2010). Regional pollution events observed by continuous measurements of $\delta^{13}\text{C-CO}_2$ and $\delta^{18}\text{O-CO}_2$ at Jungfraujoch using quantum cascade laser spectroscopy. ACP Symposium on Atmospheric Chemistry and Physics at Mountain Sites. Interlaken, Switzerland.

Emmenegger, L., Tuzson, B., Mohn, J., Zahniser, M., Kammer, A. and Zeeman, M. J. (2010). Real-time measurement of $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ in CO₂ by QCLAS - from the soil to the free troposphere. EGU 2010, European Geosciences Union, Vienna, Germany.

Fierz-Schmidhauser, R., Zieger, P., Gysel, M., Weingartner, E., Baltensperger, U., Vaishya, A., O'Dowd, C. D., Jennings, S. G., Tuch, T., Wiedensohler, A., Ström, J., Henzing, B., Moerman, M., and Leeuw, G. d.: Relative humidity dependent light scattering of aerosols at various sites, International Aerosol Conference, Helsinki, Finland, August 29 – September 3, 2010, Abstract 7E3.

<http://www.iac2010.fi/>

Fiore, A., D. Jaffe, E. Fischer, J. Staehelin, S. Pandey, M. Steinbacher, and C. Zellweger, Measured and modelled PAN mixing ratios in the free troposphere, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, CH, 8 – 10 June 2010.

Flückiger, E.O., Terrestrial effect of cosmic rays, 22nd European Cosmic Ray Symposium, Turku, Finland, 3-6 August 2010, abstract, 2010.

Froidevaux, M., Ch. Higgins, V. Simeonov, I. Serikov, H. van den Bergh, R. Calhoun, P. Ristori, E. Pardyjak, and M. Parlange, “Turbulent Atmospheric Boundary Layer Evaporation (TABLE) experiment: preliminary results”, 25th International Laser Lidar Conference, 5 - 9 July 2010, St. Petersburg, Russia.

Henne, S., D. Brunner, J. Klausen, B. Buchmann, Inter-Annual Variability of CO and CH₄ Observations Interpreted by a Global Lagrangian Transport Model, European Geophysical Union, Vienna, 3 – 7 May 2010.

Henne, S., D. Brunner, J. Klausen, B. Buchmann, Inter-Annual Variability of CO and CH₄ Observations Interpreted by a Global Lagrangian Transport Model, NOAA ESRL Global Monitoring Annual Meeting, Boulder, Colorado, 18 – 19 May 2010.

Henne, S., C. Hüglin, D. Brunner, M. Steinbacher, and B. Buchmann, Robust estimation of baseline signal considering latitudinal concentration gradients, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, CH, 8 – 10 June 2010.

Hueglin, C., Performance of laserspectroscopic technologies for determination of regulated compounds, Workshop and Conference on Current and Future Air Quality Monitoring, Royal Society of Chemistry/AirMonTech, London, GB, 14 – 15 December 2010.

Hueglin, C., Recent technologies for air pollution monitoring, Workshop and Conference on Current and Future Air Quality Monitoring, Royal Society of Chemistry/AirMonTech, London, GB, 14 – 15 December 2010.

Jurányi, Z., Gysel, M., Weingartner, E., Baltensperger, U.: Long-term cloud condensation nucleus concentration measurement at Jungfraujoch, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, June 8-10 2010.
<http://acp.scnat.ch/e/news/events/2010/>

Kaiser, A., H. Scheifinger, M. Steinbacher, S. Gilge, L. Ries, C. Uglietti, and M. Leuenberger, Meteorological interpretation of the high Alpine carbon dioxide and ozone concentrations, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, CH, 8 – 10 June 2010.

Kammermann, L.; Gysel, M.; Weingartner, E.; Baltensperger, U., Hygroscopicity of the central European free tropospheric aerosol: A 13-month study at the high alpine site Jungfraujoch, International Aerosol Conference, Helsinki, Finland, August 29 – September 3, 2010, Abstract P2H3.
<http://www.iac2010.fi/>

Keller, C. A., D. Brunner, M. K. Vollmer, S. O'Doherty, A. Manning, and S. Reimann, Halogenated Greenhouse Gas Emissions Inferred from Ambient Air Measurements and ^{222}Rn , European Geophysical Union, Vienna, 3 – 7 May 2010.

Keller, C. A., D. Brunner, M. K. Vollmer, S. Henne, and S. Reimann, Allocation and Trends of Halogenated Hydrocarbon Emissions in Europe as Observed from Jungfraujoch, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, 8 – 10 June 2010.

Keller, C. A., M. K. Vollmer, D. Brunner, F. Conen, and S. Reimann, Halogenated Greenhouse Gas Emissions inferred from Ambient Air Measurements and Radon-222 at Jungfraujoch, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, 8 – 10 June 2010.

Kerzenmacher, T., B. Dils, N. Kumps, A. C. Vandaele, T. Blumenstock, C. Clerbaux, P.-F. Coheur, P. Demoulin, P. Duchatelet, M. George, F. Hase, N. Jones, E. Mahieu, J. Notholt, K. Petersen, A. Razavi, T. Ridder, M. Schneider, C. Senten, G. Vanhalewyn, C. Vigouroux, C. Wespes, and M. De Mazière, Validation of HNO_3 , CO and CH_4 column data from IASI using ground-based FTIR data, oral presentation at the second IASI international conference, 25-29 January 2010, Sévrier, France, 2010.
http://girpas.astro.ulg.ac.be/girpas/C2010/abstract_IASI2010.txt

Lejeune, B., E. Mahieu, C. Servais, P. Duchatelet, and P. Demoulin, Optimized approach to retrieve information on the tropospheric and stratospheric carbonyl sulfide (OCS) vertical distributions above Jungfraujoch from high-resolution FTIR solar spectra, poster presented at the “EGU 2010 General Assembly”, 2-7 May 2010, Vienna, Austria, 2010.
<http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010-3513.pdf>
http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010_OCS_BL.pdf

Leuenberger, M., and C. Uglietti, Atmospheric O_2 and CO_2 at the High Alpine Station Jungfraujoch, Switzerland - a comparison between online and flask measurements, in Symposium on Atmospheric Chemistry and Physics at Mountain Sites, edited by

ACP commission of scnat, pp. 41-42, Paul Scherrer Institut, Interlaken, Switzerland, June 8-10, 2010.

<http://acp.scnat.ch/e/news/events/2010/>

Mahieu, E., C. P. Rinsland, T. Gardiner, R. Zander, P. Demoulin, M.P. Chipperfield, R. Ruhnke, L.S. Chiou, M. De Mazière, P. Duchatelet, B. Lejeune, G. Roland, and C. Servais, Recent trends of inorganic and halogenated source gases above the Jungfraujoch and Kitt Peak stations derived from high-resolution FTIR solar observations, poster presented at the “EGU 2010 General Assembly”, 2-7 May 2010, Vienna, Austria, 2010.

<http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010-2420-3.pdf>

http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010_Cly_CCly_FINAL.pdf

Meier, M.F., M. Collaud Coen, G. Wehrle and B. Grobéty, Single Particle Analysis of Saharan Dust Sampled on Jungfraujoch, 20th Annual VM Goldschmidt Conference, Knoxville, Tennessee, USA, June 13-18 2010, *Geochimica et Cosmochimica Acta*, 74, Issue 11, Supplement 1, A695, 2010.

Meijer, Y.J., T. Fehr, R. von Kuhlmann, R.M. Koopman, A. Pellegrini, G. Busswell, M. Ghule, I. Mustafee, N. Scott, M. De Mazière, S. Niemeijer, R. van Deelen, H. Baltzer, G. Corlett, F. Collard, J. Dorandeu, J.-C. Lambert, A. Píters, D. Smith, GECA: ESA’s next generation validation data centre, poster presented at the ESA Living Planet Symposium, (Bergen, Norway, June 28-July 2, 2010), ESA Special Publication SP-686, 2010.

Nyeki, S., C. Wehrli, and J. Gröbner, Long-term Aerosol Optical Depth (AOD) Measurements from the GAW-PFR Network, International Polar Year Conference, Oslo, Norway, 8-12 June, 2010.

Nyeki, S., C. Wehrli, J. Gröbner, and L. Vuilleumier, Long-term Aerosol Optical Depth (AOD) measurements at the Jungfraujoch Global GAW station, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, Switzerland, June 8-10, 2010.

Pandey, S., J. Staehelin, D. Brunner, M. Steinbacher, U. Weers, C. Zellweger, E. Weingartner, and M. Collaud Coen, M., NO_y speciation and relationship with PAN in the troposphere from measurements at Jungfraujoch, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, CH, 8 – 10 June 2010.

Pandey, S., S. Henne, J. Staehelin, U. Weers, L. Ries, M. Steinbacher, and T. Peter, PAN transport at Alpine sites from European planetary boundary layer, American Geophysical Union Fall Meeting, San Francisco, USA; 13 – 17 December 2010.

Pinardi, G., R. Campion, M. Van Roozendaal, C. Fayt, J. van Geffen, B. Galle, S. Carn, P. Valks, M. Rix, S. Hildago, J. Bourquin, G. Garzon, S. Inguaggiato, Comparison of Volcanic SO₂ Flux Measurements From Satellite And From The NOVAC Network, Proceedings of the 2010 EUMETSAT conference, Cordoba, Spain, 20-24 September 2010.

Pinardi, G., J.-C. Lambert, J. Granville, M. Van Roozendaal, A. Delcloo, H. De Backer, P. Valks, N. Hao, Overview of The Validation of GOME-2 Total And Tropospheric NO₂ Columns, Proceedings of the 2010 EUMETSAT conference, Cordoba, Spain, 20-24 September 2010.

Reimann, S., C. A. Keller, D. Brunner, M. K. Vollmer, S. O'Doherty, A. Manning, Top-Down Validation of European Halocarbon Emission Inventories, NOAA ESRL Global Monitoring Annual Meeting, Boulder, Colorado, 18 – 19 May 2010.

Reimann, S. and M. K. Vollmer, Hydrofluoroolefines (HFOs): Measured before produced, AGAGE 42nd Meeting of AGAGE scientists and Cooperating Networks, Melbourne, 8 – 11 November 2010

Rinsland, C.P., E. Mahieu, P. Demoulin, L.S. Chiou, R. Zander and J.-M. Hartmann, Long-term trend of carbon tetrachloride (CCl₄) from ground-based high-resolution infrared solar spectra recorded at the Jungfraujoch, oral presentation at the “EGU 2010 General Assembly”, 2-7 May 2010, Vienna, Austria, 2010.

<http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010-1819-3.pdf>

Ruckstuhl, A.F., S. Henne, S. Reimann, M. Steinbacher, B. Buchmann, and C. Hueglin, Estimation of background concentrations of atmospheric trace gases using robust local regression, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, CH, 8 – 10 June 2010.

Ruhnke, R., M.P. Chipperfield, M. De Mazière, J. Notholt, S. Barthlott, R.L. Batchelor, R.D. Blatherwick, Th. Blumenstock, M.T. Coffey, P. Duchatelet, H. Fast, W. Feng, A. Goldman, D.W.T. Griffith, K. Hamann, J.W. Hannigan, F. Hase, N.B. Jones, A. Kagawa, Y. Kasai, O. Kirner, R. Kohlhepp, W. Kouker, I. Kramer, R. Lindenmaier, E. Mahieu, R.L. Mittermeier, B. Monge-Sanz, I. Murata, H. Nakajima, I. Morino, M. Palm, C. Paton-Walsh, Th. Reddman, M. Rettinger, C.P. Rinsland, M. Schneider, C. Senten, B.-M. Sinnhuber, D. Smale, K. Strong, R. Sussmann, J.R. Taylor, G. Vanhaelewyn, T. Warneke, C. Whaley, M. Wiehle, and S.W. Wood, Observed and simulated time evolution of HCl, ClONO₂, and HF total columns, oral presentation at the “EGU 2010 General Assembly”, 2-7 May 2010, Vienna, Austria, 2010.

<http://meetingorganizer.copernicus.org/EGU2010/EGU2010-8100.pdf>

Scheeren, B., and M. Steinbacher, Comparing in-situ greenhouse gas observations from Jungfraujoch and Ispra: on the role of advection of Po Valley air pollution, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, CH, 8 – 10 June 2010.

Simeonov, V., T. Dineev, B. Calpini, S. Bobrovnikov, Y. Arshinov, P. Ristori, H. van den Bergh, and M. Parlange, “A Raman lidar as operational tool for water vapor profiling in the Swiss Meteorological Office”, 25th International Laser Lidar Conference, 5 - 9 July 2010, St. Petersburg, Russia.

Stahelin, J., J. Cui, S. Pandey, M. Sprenger, M. Steinbacher, S. Henne, and M. Collaud Coen, Ozone and ozone precursors at Jungfraujoch (Switzerland): Data analysis and long-term changes, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, CH, 8 – 10 June 2010.

Steinbacher, M., Experiences from the Swiss National Air Pollution Monitoring Network, International Workshop on GAW, Jakarta, IDN, 06 – 07 October 2010.

Steinbacher, M., D. Brunner, S. Henne, M. K. Vollmer, S. Reimann, In-situ Methane Observations at Jungfraujoch: European Source Allocations and Emission estimates, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, 8 – 10 June 2010.

Steinbacher, M. S. Reimann, M. K. Vollmer, M. Hill, C. Hueglin, VOC Observations Within the Swiss National Air Pollution Monitoring Network, 3rd WMO/GAW expert meeting on global observations of VOCs, Helsinki, 29 – 30 June 2010.

Steinbacher, M., B. Schwarzenbach, B. Buchmann, C. Hueglin, Continuous in-situ Air Quality Measurements at Jungfrauoch as Part of the Swiss National Air Pollution Monitoring Network (NABEL), Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, 8 – 10 June 2010.

Steinbacher M., C. Zellweger, and C. Hueglin, Continuous in-situ CH₄ and CO₂ Observations at Jungfrauoch using Cavity Ring Down Spectroscopy, Swiss Global Change Day, Bern, 20 April 2010.

Sussmann, R., T. Borsdorff, M. Rettinger, C. Camy-Peyret, P. Demoulin, P. Duchatelet, E. Mahieu, C. Servais, and the NDACC-FTIR team, Water vapor trends from the NDACC-FTIR network, oral presentation at the “EGU 2010 General Assembly”, 2-7 May 2010, Vienna, Austria, 2010.

<http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010-8569-1.pdf>

Tuzson, B., Kammer, A., Zeeman, M. J., Mohn, J., Zahniser, M. and Emmenegger, L. (2010). In situ investigation of CO₂ dynamics of biosphere-atmosphere carbon exchange based on real-time measurement of $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ by QCLAS. COST-SIBAE WG3 Laser Workshop. Zürich, Switzerland.

Tuzson, B., Mohn, J., Steinbacher, M., Henne, S., Brunner, D. and Emmenegger, L. (2010). Long-term and in situ spectroscopic measurements of $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ of CO₂ at Jungfrauoch (3580 masl) reveal regional pollution events. ISI 2010, The Fifth International Symposium on Isotopomers. Amsterdam, Netherlands, 21 – 25 June 2010.

van der Laan, Ingrid and Sander van der Laan, presentation about the Jungfrauoch measurements of the Climate and Environmental Physics Division, University of Bern, Oeschger plenary meeting, Gwatt, 2010.

Vanhaelewyn, G., P. Duchatelet, N. Kumps, C. Senten, C. Vigouroux, B. Dils, C. Hermans, P. Demoulin, E. Mahieu and M. De Mazière, Preliminary comparisons of the error budgets associated with ground-based FTIR measurements of atmospheric HCl and HF profiles at Ile de la Réunion and Jungfrauoch, poster presented at the “3rd GEOMon General Assembly”, 18-20 January 2010, Royal Astronomical Society, London, United Kingdom, 2010.

http://girpas.astro.ulg.ac.be/girpas/C2010/Meeting%20Program%20Book_GEOMon_GA_2010_pp26-27.pdf

Vanhaelewyn, G., P. Duchatelet, C. Vigouroux, B. Dils, N. Kumps, C. Hermans, P. Demoulin, E. Mahieu, R. Sussmann, and M. De Mazière, Comparison of the error budgets associated with ground-based FTIR measurements of atmospheric CH₄ profiles at Ile de la Réunion and Jungfrauoch, oral presentation at the “EGU 2010 General Assembly”, 2-7 May 2010, Vienna, Austria, 2010.

<http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010-15537.pdf>

Verebélyi, E., Miller, M., Tóth, L.V., Makai, Z., Marton, G., CO survey of ARCHEOPS cold cores, *Journal of Physics, Conference Series*, **218**, Issue 1, pp. 012023, 2010

Vigouroux, C., P. Demoulin, T. Blumenstock, M. Schneider, J. Klyft, M. Palm, T. Gardiner, M. De Mazière, C. Servais, F. Hase, R. Kohlhepp, S. Bartholt, J. Mellqvist,

and J. Notholt, Ozone tropospheric and stratospheric trends (1995-2008) over Western Europe from ground-based FTIR network observations, oral presentation at the “EGU 2010 General Assembly”, 2-7 May 2010, Vienna, Austria, 2010.

<http://girpas.astro.ulg.ac.be/girpas/C2010/EGU2010-8500.pdf>

Vollmer, M. K., Atmospheric Halogenated Trace Gases – Automated Measurements using Gas Chromatography – Mass Spectrometry (GC – MS), Agilent Forum, Basel, 7 – 8 September 2010.

Vollmer, M. K., et al., Atmospheric Histories and Global Emissions of the Anthropogenic Hydrofluorocarbons (HFCs) HFC-365mfc, HFC-245fa, HFC-227ea, and HFC-236fa, 41st Meeting of AGAGE scientists and Cooperating Networks, Beijing 7 – 11 June 2010.

Vuilleumier, L. and D. Walker, Estimation of cloud effect on UV erythemal irradiance using SW irradiance data, Eleventh BSRN Scientific Review and Workshop, Queenstown, New Zealand, 13-16 April 2010, Summary Report from the Eleventh BSRN Scientific Review and Workshop, 14 (2010)
http://www.gewex.org/BSRN/BSRN-11_Report-final.pdf

Vuilleumier, L. and D. Walker, Evolution of surface reflectivity in Switzerland between 1980 and 2008, Eleventh BSRN Scientific Review and Workshop, Queenstown, New Zealand, 13-16 April 2010, Summary Report from the Eleventh BSRN Scientific Review and Workshop, 16-17 (2010)
http://www.gewex.org/BSRN/BSRN-11_Report-final.pdf

Weingartner, E.: Influence of aerosol particles on cloud microphysical properties, Symposium on Atmospheric Chemistry and Physics at Mountain Sites, Interlaken, June 8-10 2010.

<http://acp.scnat.ch/e/news/events/2010/>

Yilmaz A., Denizli H., Iori M. ' Preliminary Test Results of a Prototype Detector at Sphinx Observatory Center', Turkish Physical Society 27th International Physics Congress, 14-17 September 2010, Istanbul, Turkey..

Edited Books

Bommer C., Phillips M., Keusen H.R., Teyssiere P. (2010). Construire sur le pergélisol: Guide pratique. Birmensdorf, Eidg. Forschungsanstalt für Wald, Schnee und Landschaft, SLF. 126 p.

PDF Download in German: <http://www.slf.ch/dienstleistungen/buecher/9819.pdf>

Häberlin, H.: “Photovoltaik – Strom aus Sonnenlicht für Verbundnetz und Inselanlagen”, 2010. Electrosuisse-Verlag, CH-8320 Fehraltorf, ISBN 978-3-905214-62-8 and VDE Verlag, Berlin, ISBN 978-3-8007-3205-0 (in German)

Montzka, S. A. and Reimann, S., Ozone depleting substances (ODSs) and related chemicals, Chapt. 1, in: Scientific Assessment of ozone depletion, 2010, Global Ozone Research and Monitoring Project – Report number xxx, World Meteorological Organization, Geneva, 2011.

Theses

Bartlome, Marcel, Development of the Jungfraujoeh UV DIAL Lidar to Observe the Vertical Ozone Distribution in the Context of Stratosphere Troposphere Exchange and Long Range Transport. Thèse EPFL, no 4636 (2010). Dir.: Valentin Simeonov, Marc Parlange. <http://library.epfl.ch/theses/?nr=4636> DOI: 10.5075/epfl-thesis-4636

Bond, S. W. Sources and Sinks of Hydrogen in the Atmosphere during Transition to Hydrogen-based Transportation. PhD Thesis, ETH Zurich, 2010.

Farinotti, D., Simple methods for inferring glacier ice-thickness and snow-accumulation distribution, PhD Thesis, ETH Zürich, 2010.

Fierz, Rahel Andrea. Enhancement of the light scattering coefficient of atmospheric aerosol particles by water uptake. ETH (2010). Diss. ETH No. 18784 doi:10.3929/ethz-a-006113754. <http://e-collection.ethbib.ethz.ch/view/eth:1535> .

Jurányi, Z.: Characterisation of the cloud condensation nuclei properties of complex aerosols: from the smogchamber to the free troposphere, Dissertation ETH Zürich, Diss. ETH No. 19238, 2010.

Kammermann, Lukas Peter. Aerosol hygroscopicity and CCN properties at remote sites. ETH (2010). doi:10.3929/ethz-a-006078109. Data publications and reports <http://e-collection.ethbib.ethz.ch/view/eth:1356>.

Ross, Jens-Ole, Simulation of atmospheric krypton-85 transport to assess the detectability of clandestine nuclear reprocessing, Doctoral thesis University of Hamburg, 2010, Reports on Earth System Science 82/2010, Max-Planck-Institut für Meteorology in Hamburg, ISSN 1614-1199.

Wacker, S., LIRAS – Long-wave Infrared Radiative forcing trend Assimilation over Switzerland, PhD Thesis, Universität Bern, 2010.

Yilmaz A., Study of Prototype Detector for UHE Tau-Neutrino Detection, Masters thesis, academic year: 2010-2011, Abant Izzet Baysal University, Bolu, Turkey.

Popular publications and presentations

“Visite de l’observatoire du Sphinx au Jungfraujoeh, Suisse,” A. De Bruijn, Cercle Astronomique Mosan A.S.B.L., Dinant, Belgique. Éditions Copernic, 2010.

Data books and reports

BAFU, NABEL Luftbelastung 2009. Umwelt Zustand Nr. 1016, pp. 142. Bundesamt für Umwelt, Bern, 2010.

Empa and BAFU, Technischer Bericht 2010 zum Nationalen Beobachtungsnetz für Luftfremdstoffe (NABEL), pp. 206, Dübendorf, 2010. Available online: http://www.empa.ch/plugin/template/empa/*/99311

H. Häberlin: “Photovoltaik – Strom aus Sonnenlicht für Verbundnetz und Inselanlagen”, 2010. Electrosuisse-Verlag, CH-8320 Fehraltorf, ISBN 978-3-905214-62-8 and VDE Verlag, Berlin, ISBN 978-3-8007-3205-0 (in German).

“Ozone, rayonnement et aérosols (GAW)” in *Annalen 2009 MeteoSchweiz*, Zürich SZ ISSN 0080-7338 pp. 115–131, 2010.

PERMOS 2010. Permafrost in Switzerland 2006/2007 and 2007/2008. Noetzli, J. and Vonder Muehll, D. (eds.), Glaciological Report (Permafrost) No. 8/9 of the Cryospheric Commission of the Swiss Academy of Sciences, 68 pp.

Reimann, S., M. K. Vollmer, D. Brunner, M. Steinbacher, M. Hill, A. Wenger, C. Keller, and B. Buchmann, Kontinuierliche Messung von halogenierten Treibhausgasen auf dem Jungfrauoch (HALCLIM-4). Empa project No 201'203, 1st Interim Report, 21 October 2010. Available at:
<http://www.bafu.admin.ch/luft/00649/01960/>

Schlosser, C.: Großräumige Veränderung der Umweltradioaktivität: Atmosphärische Radioaktivität. In: Interventionen und Nachhaltigkeit im Strahlenschutz. Klausurtagung der Strahlenschutzkommission am 13./14. November 2008, Berlin. Veröffentlichungen der Strahlenschutzkommission, Band 65, H. Hoffmann GmbH, Berlin, 2010, 254-280, ISBN 978-3-87344-159-0

Scientific Assessment of Ozone Depletion: 2010, contributions from P. Duchatelet and E. Mahieu (in Chapter 1, Ozone-Depleting Substances and Related Chemicals) and of P. Demoulin (in Chapter 2, Stratospheric Ozone and Surface Ultraviolet Radiation), World Meteorological Organization, Global Ozone Research and Monitoring Project, Report N^o. 52, 2010.

Umweltradioaktivität und Strahlendosen in der Schweiz, Bundesamt für Gesundheit, Abteilung Strahlenschutz, 2004, 2005, 2006, 2007, 2008, 2009, 2010 (in preparation)

Various publications

Gini, Mario, Bau & Betrieb einer Diffusionsnebelkammer, Maturitätsarbeit Physik, Kantonsschule Limmattal, 2010.