

**Peer-reviewed publications for  
Humidified Tandem Differential Mobility Analyzer (HTDMA, Model 3002)**

Heidi H. Y. Cheung, Ming Chee Yeung, Yong Jie Li, Berto P. Lee & Chak K. Chan (2015). Relative Humidity-Dependent HTDMA Measurements of Ambient Aerosols at the HKUST Supersite in Hong Kong, China, *Aerosol Science and Technology*, Vol 49, Issue 8 pages 643-654 DOI:10.1080/02786826.2015.1058482

Ming Chee Yeung, Berto P. Lee, Yong Jie Li and Chak K. Chan (2014). Simultaneous HTDMA and HR-ToF AMS measurements at the HKUST Supersite in Hong Kong in 2011, *Journal of Geophysical Research Atmospheres*, 119: doi:10.1002/2013JD021146.

Xerxes F. Lopez-Yglesias, Ming Chee Yeung, Stephen E. Dey, Fred J. Brechtel and Chak K. Chan (2014). Performance evaluation of the Brechtel Mfg. Humidified Tandem Differential Mobility Analyzer (BMI HTDMA) for studying hygroscopic properties of aerosol particles, *Aerosol Science and Technology*, 48: DOI: 10.1080/02786826.2014.952366.

J. D. Whitehead, M. Irwin, J. D. Allan, N. Good and G. McFiggans (2014). A meta-analysis of particle water uptake reconciliation studies, *Atmos. Chem. Phys. Discuss.*, 14:9783-9800, doi:10.5194/acpd-14-9783-2014.

A. Wonaschütz, M. Coggon, A. Sorooshian, R. Modini, A. Frossard, L. Ahlm, J. Mülmenstädt, G. C. Roberts, L. Russell, S. Dey, F. J. Brechtel, J. H. Seinfeld (2013). On the Evolution of Organic Aerosol Water-Uptake Properties in an Aging Plume in the Marine Atmosphere, *Paper presented at the European Geophysical Union meeting session AS1.7*, Vienna, Austria, April 7-12, 2013.

Alfarra, M. R., Good, N., Wyche, K. P., Hamilton, J. F., Monks, P. S., Lewis, A. C., and McFiggans, G. B. (2013). Water uptake is independent of the inferred composition of secondary aerosols derived from multiple biogenic VOCs, *Atmos. Chem. Phys.* 13:11769-11789, DOI:10.5194/acp-13-11769-2013.

A. Wonaschütz, M. Coggon, A. Sorooshian, R. Modini, A. A. Frossard, L. Ahlm, J. Mülmenstädt, G. C. Roberts, L. M. Russell, S. Dey, F. J. Brechtel, and J. H. Seinfeld (2013). Hygroscopic properties of smoke-generated organic aerosol particles emitted in the marine atmosphere. *Atmos. Chem. Phys.*, 13: 9819–9835, www.atmos-chem-phys.net/13/9819/2013/doi:10.5194/acp-13-9819-2013

A. Sorooshian, J. Csavina, T. Shingler, S. Dey, F. J. Brechtel, E. Sáez, E. Betterton (2012). Hygroscopic and Chemical Properties of Aerosols collected near a Copper Smelter: Implications for Public and Environmental Health, *Environmental Science and Technology*, 46: 9473-9480.

C. A. Brock, B. E. Anderson, L. D. Ziemba, K. Thornhill, R. Moore, A. Beyersdorf, E. Winstead, S. Crumeyrolle, N. Wagner, J. Langridge, M. Richardson, D. Lack, D. Law, T. Shingler, A. Sorooshian (2012). Continuous Measurement of Particle Hygroscopicity as a Function of Diameter, *Poster presented at the American Geophysical Union Conference*, Dec. 2012.

M. C. Yeung, C. K. Chan (2012). Hygroscopic Growth Measurements of Ambient Aerosol at a Suburban Site in Hong Kong: Seasonal Trends and Water-Uptake Behavior as a Function of Relative Humidity. *Poster presented at the American Association for Aerosol Research Conference*, Oct. 2012.

Alfarra, M. R., J. F. Hamilton, K. P. Wyche, N. Good, M. W. Ward, T. Carr, M. H. Barley, P. S. Monks, M. E. Jenkin and G. B. McFiggans, (2012). The effect of photochemical ageing and initial precursor concentration on

the composition and hygroscopic properties of  $\beta$ -caryophyllene secondary organic aerosol, *Atmos. Chem. Phys.*, 12: 6417-6436, doi:10.5194/acp-12-6417-2012.

Fuentes, E., H. Coe, D. Green and G. McFiggans (2011). On the impacts of phytoplankton-derived organic matter on the properties of the primary marine aerosol – Part 2: Composition, hygroscopicity and cloud condensation activity, *Atmos. Chem. Phys.*, 11: 2585-2602, doi:10.5194/acp-11-2585-2011.

Irwin, M., N. Robinson, J. D. Allan, H. Coe, and G. McFiggans (2011). Size-resolved aerosol water uptake and cloud condensation nuclei measurements as measured above a Southeast Asian rainforest during OP3, *Atmos. Chem. Phys.*, 11: 11157-11174, doi:10.5194/acp-11-11157-2011.

A. Massling, N. Niedermaier, T. Hennig, E. Fors, E. Swietlicki, M. Ehn, K. Hämeri, P. Villani, P. Laj, N. Good, G. McFiggans, and A. Wiedensohler (2011). Results and recommendations from an intercomparison of six Hygroscopicity-TDMA systems, *Atmos. Meas. Tech.*, 4: 485-497, doi:10.5194/amt-4-485-2011.

G. R. McMeeking, N. Good, M. D. Petters, G. McFiggans, and H. Coe (2011). Influences on the fraction of hydrophobic and hydrophilic black carbon in the atmosphere, *Atmos. Chem. Phys.*, 11: 5099-5112, doi:10.5194/acp-11-5099-2011.

N. Good, D. O. Topping, J. D. Allan, E. Fuentes, M. Irwin, M. Flynn, P. I. Williams, H. Coe and G. McFiggans (2010). Consistency between parameterisations of aerosol hygroscopicity and CCN activity during the RHaMBLe Discovery cruise, *Atmos. Chem. Phys.*, 10: 3189-3203, doi:10.5194/acp-10-3189-2010.

N. Good, H. Coe and G. McFiggans (2010). Instrumentational operation and analytical methodology for the reconciliation of aerosol water uptake under sub- and supersaturated conditions, *Atmos. Meas. Tech.*, 3: 1241-1254, doi:10.5194/amt-3-1241-2010.

M. Irwin, N. Good, J. Crosier, T. W. Choularton and G. McFiggans (2010). Reconciliation of measurements of hygroscopic growth and critical supersaturation of aerosol particles in Southwest Germany, *Atmos. Chem. Phys.*, 10: 11737-11752, doi:10.5194/acp-10-11737-2010.

A. Sorooshian, S. Hersey, F. J. Brechtel, A. Corless, R. C. Flagan, and J. H. Seinfeld (2008). Rapid, Size-Resolved Aerosol Hygroscopic Growth Measurements: Differential Aerosol Sizing and Hygroscopicity Spectrometer Probe (DASH-SP), *Aerosol Sci. & Tech.*, 42: 445-464.

A. Sorooshian, S. M. Murphy, S. Hersey, H. Gates, L. T. Padre, A. Nenes, F. J. Brechtel, H. Jonsson, R. C. Flagan, and J. H. Seinfeld (2008). Comprehensive airborne characterization of aerosol from a major bovine source, *Atmos. Chem. Phys.*, 8: 5489-5520.

V. Varutbangkul, F. J. Brechtel, R. Bahreini, N. L. Ng, M. D. Keywood, J. H. Kroll, R. C. Flagan, J. H. Seinfeld, A. Lee, and A. H. Goldstein (2006). Hygroscopicity of secondary organic aerosols formed by oxidation of

cycloalkenes, monoterpenes, sesquiterpenes, and related compounds, *Atmos. Chem. & Physics Discussions*, 6: 1121-1177.

H. Wex, A. Kiselev, F. Stratmann, J. Zoboki, and F. Brechtel (2005). Measured and modelled equilibrium sizes of salt particles at relative humidities up to 99.1% and their impact on optical properties of atmospheric aerosol, *J. Geophys. Res.*, 110: D21212, doi:10.1029/2004JD005507.

T. Hennig, A. Massling, F. J. Brechtel and A. Wiedensohler (2005). A Tandem DMA for highly temperature-stabilized hygroscopic particle growth measurements between 90% and 98% relative humidity, *J. Aerosol Sci.*, 36:, doi:10.1016/j.jaerosci.2005.01.005.

G. Buzorius, C. S. McNaughton, A. D. Clarke, D. S. Covert, B. Blomquist, K. Nielsen, and F. J. Brechtel (2004). Secondary aerosol formation in continental outflow conditions during ACE-Asia. *J. Geophys. Res.*, 109: D24203, doi:10.1029/2004JD004749.

R. Kahn, et al. (2004). Environmental Snapshots from ACE-Asia, *J. Geophys. Res.*, 109: D19S14, doi:10.1029/2003JD004339.

J. H. Seinfeld, G. R. Carmichael, R. Arimoto, W. C. Conant, F. J. Brechtel, et al. (March 2004). Regional Climatic and Atmospheric Chemical Effects of Asian Dust and Pollution, *Bulletin of the American Meteorological Society*, 367-380.

J. Wang, S. A. Christopher, F. Brechtel, J.-Y. Kim, B. Schmid, J. Redemann, P. B. Russell, P. Quinn, and B. Holben (2003). Geostationary Satellite Retrievals of Aerosol Optical Thickness during ACE-Asia, *J. Geophys. Res.*, 108: 8657, doi: 10.1029/2003JD003580.

C. S. McNaughton, et al. (2003), Spatial distribution and size evolution of particles in Asian outflow: Significance of primary and secondary particles during ACE-Asia and Trace-P, *J. Geophys. Res.*, 109, D19S06, doi:10.1029/2003/JD003528.

J. Wang, V. Faye McNeill, D. R. Collins, and R. C. Flagan (2002). Fast Mixing Condensation Nucleus Counter: Application to Rapid Scanning Differential Mobility Analyzer Measurements, *Aerosol Sci. & Tech.*, 36: 678-689.

G. Buzorius, A. Zelenyuk, F. Brechtel, and D. Imre (2002). Simultaneous determination of individual ambient particle size, hygroscopicity and composition. *Geophys. Res. Lett.*, 29: 1974, doi:10.1029/2001GL014221.

F. J. Brechtel and S. M. Kreidenweis (2000). Predicting Particle Critical Supersaturation from Hygroscopic Growth Measurements In the Humidified TDMA. Part I: Theory and Sensitivity Studies. *Journal of the Atmospheric Sciences*, 57: 1854-1871.

F. J. Brechtel and S. M. Kreidenweis (2000). Predicting Particle Critical Supersaturation from Hygroscopic Growth Measurements In the Humidified TDMA. Part II: Laboratory and Ambient Studies. *Journal of the Atmospheric Sciences*, 57: 1872-1887.

S. M. Kreidenweis, L. M. McInnes, and F. J. Brechtel (1998). Observations of volatility and elemental composition at Macquarie Island during ACE 1. *Journal of Geophysical Research*, 103: 16,511-16,524.