

CURRICULUM VITAE

OLGA L. MAYOL-BRACERO

University of Puerto Rico
Department of Environmental Science
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EDUCATION

University of Puerto Rico, Ph.D., 1998, Analytical Chemistry

University of Puerto Rico, MS, 1994, Analytical Chemistry

University of Puerto Rico, BS, 1989, Chemistry

RESEARCH INTERESTS

Chemical, physical, and optical properties of atmospheric aerosols. Size-resolved chemical composition and sources of aerosols in tropical regions (biomass burning, marine, African dust, urban, biogenic), carbonaceous aerosols with special interest in black carbon, aerosols and their role in cloud condensation nuclei properties. Aerosols-clouds-climate interactions and the impact of atmospheric aerosols on degradation of structures.

EMPLOYMENT AND EXPERIENCE

January 2014 to present	Department of Environmental Science (former ITES), University of Puerto Rico FULL PROFESSOR and Director of the ATMOSPHERIC CHEMISTRY AND AEROSOLS RESEARCH LAB (ACAR)
January 2007 to 2013	Institute for Tropical Ecosystem Studies (ITES), University of Puerto Rico ASSOCIATE PROFESSOR
January 2002 to 2006	Institute for Tropical Ecosystem Studies, University of Puerto Rico ASSISTANT PROFESSOR
1998 to 2001	Max Planck Institute for Chemistry, Mainz, Germany POSTDOCTORATE Indian Ocean Experiment (INDOEX), Republic of Maldives Large-Scale Biosphere-Atmosphere Experiment in Amazonia (LBA- EUSTACH), Rondonia, Brazil

January 1989 to 1998	Environmental Analytical Laboratory, University of Puerto Rico FULL-TIME GRADUATE STUDENT
Summers of 1994-1997	Energy and Environment Division, Lawrence Berkeley National Laboratory, California RESEARCH ASSISTANT
Summer 1992	National Institute of Standards and Technology, Gaithersburg, Maryland RESEARCH ASSISTANT

RESEARCH ACCOMPLISHMENTS

Theses

Olga L. Mayol-Bracero, *Chemical and Physical Characterization of Submicron Organic Aerosols in the Tropical Trade Winds in the Caribbean*, Ph.D. Thesis, University of Puerto Rico, May 1998.

Olga L. Mayol-Bracero, *Evaluation of a Continuous Composite Sampler for Volatile Organic Compounds in Water*, MS Thesis, University of Puerto Rico, November 1993.

Books

Mayol-Bracero, O. L. Chapter 9: "Aire", In *Atlas Ambiental de Puerto Rico*, Eds. T. del Mar López-Marrero & N. Villanueva-Colón, La Editorial, Universidad de Puerto Rico, 2006, pp 89-98.

Peer-Reviewed Publications (total: 44)

1. Denjean, C, P. Formenti, K. Desboeufs, S. Chevaillier, S. Triquet, M. Maillé, M.Cazaunau, B. Laurent, **O. L. Mayol-Bracero**, P. Vallejo, M. Quiñones, I. Gutierrez, F. Cassola, P. Prati, J. A. Ogren, E. Andrews Size distribution and optical properties of African mineral dust after intercontinental transport, *Journal of Geophysical Research – Atmospheres*, in press, 2016
2. Andrade, M., N. Rojas, M. L. Melamed, **O. L. Mayol-Bracero**, M. Grutter, L. Dawidowski, J. C. Atuña, C. Rudamas, L. Gallardo, R. Mamani-Paco, M. Andrade, N. Huneus, Fostering a collaborative atmospheric chemistry research community in the Latin America and Caribbean Region, *BAMS*, in press, 2016.
3. Raga, G., Baumgardner, D., **O. L. Mayol-Bracero**, History of aerosol-cloud interactions derived from observations in mountaintop clouds in Puerto Rico, *Journal of Aerosol and Air Quality Research*, in press, 2016.
4. Valle-Díaz, C.J., Torres-Delgado, E., Colón-Santos, S.M., Lee, T., Collett Jr., J.L., McDowell, W.H., **Mayol-Bracero, O.L.**, Impact of Long-Range Transported African Dust on Cloud Water Chemistry at a Tropical Montane Cloud Forest in Northeastern Puerto Rico, *Journal of Aerosol and Air Quality Research*, in press, 2016.
5. DeMott, P., Hill, T.C.J., McCluskey, C.S., Prater, K.A., Collins, D.B., Sullivan, R.C., Ruppel, M.J., Mason, R.H., Irish, V.E., Lee, T., Hwang, C.Y., Rhee, T.S., Snider, J.R., McMeeking, G.R.,

- Dhaniyala, S., Lewis, R.E., Wentzell, J. Abbatt, J., Lee, C., Sultana, C.M., Ault, A.P., Axson, J.L., Diaz-Martinez, M., Venero, I., Santos-Figueroa, G., Stokes, M.D., Deane, G.B., **Mayol-Bracero, O.L.**, Grassian, V.H., Bertram, T.H., Bertram, A.K., Moffet, B.F., and Franc, G.D., Sea spray aerosol as a unique source of ice nucleating particles, DOI 10.1073, PNAS, 2015.
6. Denjean, C., S. Caquineau, K. Desboeufs, B. Laurent, M. Maille, M. Quiñones Rosado, P. Vallejo, **O. L. Mayol-Bracero**, and P. Formenti, Long-range transport across the Atlantic in summertime does not enhance the hygroscopicity of African mineral dust, *Geophys. Res. Lett.*, 42, doi:10.1002/2015GL065693, 2015.
 7. Fitzgerald, E.; Ault, A. P.; Zauscher, M.; **Mayol-Bracero, O. L.**; Prather, K. A. Comparison of mixing state of long-range transported Asian and African mineral dust. *Atmospheric Environment*, 115(0): 19-25, 2015.
 8. Spiegel, J. K., N. Buchmann, **O. L. Mayol-Bracero**, L. A. Cuadra-Rodriguez, C. J. Valle Diaz, K. A. Prather, S. Mertes, W. Eugster Do cloud properties in a Puerto Rican tropical montane cloud forest depend on occurrence of long-range transported African dust? *Pure and Applied Geophysics*, DOI 10.1007/s00024-014-0830-y, 2014.
 9. Prospero, J. M. and **O.L. Mayol-Bracero**, Understanding the Transport and Impact of African Dust, *B. Am. Meteorol. Soc.*, doi:10.1175/BAMS-D-12-00142.1, 2013.
 10. Gioda, A., **O. L. Mayol-Bracero**, F. N. Scatena, K. C. Weathers, V. L. Mateus, and W. H. McDowell, Chemical constituents in clouds and rainwater in the Puerto Rican rainforest: Potential sources and seasonal drivers. *Atmos. Environ.*, 68, 208-220, 2013.
 11. Trebs, I., **O. L. Mayol-Bracero**, T. M. Pauliquevis, U. Kuhn, R. Sander, L. Ganzeveld, F. X. Meixner, J. Kesselmeier, P. Artaxo, and M. O. Andreae (2012), Impact of the Manaus urban plume on trace gas mixing ratios near the surface in the Amazon Basin: Implications for the NO-NO₂-O₃ photo-stationary state and peroxy radical levels, *J. Geophys. Res.*, doi:10.1029/2011JD016386, 2012.
 12. Erazo, A., **O. L. Mayol-Bracero**, R. R. Davila, Improving slow sand filters for low-income, water- limited communities, *Opflow*, <http://dx.doi.org/10.5991/OPF.2012.38.0009>, February 2012.
 13. Fröhlich-Nowoisky, J., Burrows, S. M., Xie, Z., Engling, G., Solomon, P. A., Fraser, M. P., **Mayol-Bracero, O. L.**, Artaxo, P., Begerow, D., Conrad, R., Andreae, M. O., Després, V. R., and Pöschl, U.: Biogeography in the air: fungal diversity over land and oceans, *Biogeosciences Discuss.*, 8, 7071-7096, doi:10.5194/bgd-8-7071-2011.
 14. Gioda, A., G.J. Reyes-Rodriguez, G. Santos-Figueroa, J. Collett Jr., S. Decesari, M.C. Ramos, H.J.C. Bezerra Netto, F.R. Aquino Neto, **O.L. Mayol-Bracero**, Speciation of water-soluble inorganic, organic and total nitrogen in a background marine environment: cloud water, rainwater and aerosol particles, *Journal of Geophysical Research*, 116, doi:10.1029/2010JD015010, 2011.
 15. Soto-García, L.L., M.O. Andreae, T.W. Andreae, P. Artaxo, W. Maenhaut, T. Kirchstetter, T. Novakov, J.C. Chow, and **O.L. Mayol-Bracero**, Evaluation of the carbon content of aerosols from the burning of biomass in the Brazilian Amazon using thermal, optical and thermal-optical analysis methods, *Atmos. Chem. Phys.*, 11, 4425-4444, 2011.
 16. Martin, S. T., M. O. Andreae, P. Artaxo, D. Baumgardner, Q. Chen, A. H. Goldstein, A. Guenther, C. L. Heald, **O. L. Mayol-Bracero**, P. H. McMurry, T. Pauliquevis, U. Pöschl, K. A.

- Prather, G. C. Roberts, S. R. Saleska, M.A. Silva Dias, D. V. Spracklen, E. Swietlicki, and I. Trebs, Sources and Properties of Amazonian Aerosol Particles, *Reviews of Geophysics*, 48, RG2002, doi:10.1029/2008RG000280., 2010.
17. Reyes-Rodriguez, G.J, Gioda, A., **Mayol-Bracero, O.L.**, Collett, J.: Organic carbon and total nitrogen, and water – soluble ions in clouds from a tropical montane cloud forest in Puerto Rico, *Atmos. Environ.*, doi:10.1016/j.atmosenv.2009.05.049, 2009.
 18. Gioda, A., **Mayol-Bracero, O.L.**, Reyes-Rodriguez, G.J., Santos-Figueroa, G., Collett Jr., J., Water-soluble organic and nitrogen levels in cloud and rainwater in a background marine environment under influence of different air masses, *Journal of Atmospheric Chemistry*, DOI 10.1007/s10874-009-9125-6, 2009.
 19. Gioda, A., **O. L. Mayol-Bracero**, F. Morales-García, J. Collett, S. Decesari, L. Emblico, M. C. Facchini, R. J. Morales-De Jesús, S. Borrmann, S. Walter, J. Schneider, S. Mertes, Chemical composition of cloud water in the Puerto Rican Tropical Trade Winds, *Water, Air and Soil Pollution*, DOI 10.1007/s11270-008-9888-4, 2008.
 20. Allan, J., D. Baumgardner, G.B. Raga, **O. L. Mayol-Bracero**, F. Morales, F. García, G. Montero- Martínez, S. Borrmann, J. Schneider, S. Mertes, S. Walter, M. Gysel, U. Dusek, G. Frank, M. Kraemer, Clouds and aerosols in Puerto Rico—a new evaluation, *Atmos. Chem. Phys.*, 8, 1293-1309, 2008.
 21. Trebs, I., M. O. Andreae, W. Elbert, **O. L. Mayol-Bracero**, L. L. Soto-García, Y. Rudich, A. H. Falkovich, W. Maenhaut, P. Artaxo, R. Otjes, J. Slanina, Aerosol inorganic composition at a tropical site: Discrepancies between filter-based sampling and a semi-continuous method, *Aerosol Science and Technology*, 42, 255-269, 2008.
 22. Rauber, R.M., B. Stevens, H. T. Ochs III, C. Knight, B. A. Albrecht, A.M. Blyth, C.W. Fairall J. B. Jensen, S. G. Lasher-Trapp, **O. L. Mayol-Bracero**, G. Vali, J. R. Anderson, B. A. Baker, A. R. Bandy, F. Burnet, J-L. Brenguier, W. A. Brewer, P. R. A. Brown, P. Chuang, W. R. Cotton, L. Di Girolamo, B. Geerts, H. Gerber, S. Göke, L. Gomes, B. G. Heikes, J. G. Hudson, P. Kollias, R. P. Lawson, S. K. Krueger, D. H. Lenschow, L. Nuijens, D. W. O’Sullivan, R. A. Rilling, D. C. Rogers, A. P. Siebesma, E. Snodgrass, J. L. Stith, D. C. Thornton, S. Tucker, C. H. Twohy, P. Zuidema, “Rain in (Shallow) Cumulus over the Ocean—The RICO Campaign”, *Bulletin of the American Meteorological Society*, 88, 1912-1928, 2007.
 23. Rauber, R. M., B. Stevens, J. Davison, S. Goeke, **O. L. Mayol-Bracero**, D. Rogers, P. Zuidema, H. T. Ochs III, C. Knight, J. Jensen, S. Bereznicki, S. Bordonni, H. Caro-Gautier, M. Colón-Robles, M. Deliz, S. Donaher, A. Edwards, V. Ghate, E. Grzeszczak, C. Henry, A. Hertel, I. Jo, M. Kruk, J. Lowenstein, J. Malley, B. Medeiros, Y. Méndez, S. Mishra, F. Morales, A. A. Nuijens, D. O'Donnell, D. Ortiz-Montalvo, K. Rasmussen, E. Riepe, S. Scalia, E. Serpetzoglou, H. Shen, M. Siedsma, J. Small, E. Snodgrass, P. Trivej, E. Zarouy, J. Zawislak, “In the Driver’s Seat – RICO and Education”, *Bulletin of the American Meteorological Society*, 88, 1929-1937, 2007.
 24. Fuzzi, S., S. Decesari, M. C. Facchini, F. Cavalli, L. Emblico, M. Mircea, M.O. Andreae, I. Trebs, A. Hoffer, P. Guyon, P. Artaxo, L.V. Rizzo, L.L. Lara, T. Pauliquevis, W. Maenhaut, N. Raes, X. Chi, **O.L. Mayol-Bracero**, L.L. Soto-García, M. Claeys, I. Kourtchev, J. Rissler, E. Swietlicki, E. Tagliavini, G. Schkolnik, A.H. Falkovich, Y. Rudich, G. Fisch, L.V. Gatti, Overview of the inorganic and organic composition of size-segregated aerosol in Rondônia,

- Brazil, from the biomass burning period to the onset of the wet season, *J. Geophys. Res.*, D01201, doi:10.1029/2005JD006741, 2007.
25. Chand, D., P. Guyon, P. Artaxo, O. Schmid, **O. L. Mayol-Bracero**, G. Frank, L. V. Gatti, F.X. Meixner, M. A. L. Moura, M. O. Andreae, Optical and physical properties of aerosols in the boundary layer and free troposphere over the Amazon Basin during the biomass burning season, *Atmos. Chem. Phys.* 6, 2911-2925, 2006.
 26. Ortiz-Zayas, J., E. Cuevas, **O.L. Mayol-Bracero**, L. Danoso, I. Trebs, D. Figueroa-Nieves, W. McDowell, Urban influences on the nitrogen cycle in Puerto Rico, *Biogeochemistry*, DOI 10.1007/s10533-006-9005-y, 79, 109-133, 2006.
 27. Minvielle, F., G. Cautenet, M.O. Andreae, F. Lasserre, G. Foret, S. Cautenet, J.F. Leon, **O.L. Mayol-Bracero**, R. Gabriel, P. Chazette, R. Roca, Modelling the transport of aerosols during INDOEX 1999 and comparison with experimental data - 1: carbonaceous aerosol distribution, *Atmos. Environ.*, 38, 1811-1822, 2004.
 28. Minvielle, F., G. Cautenet, F. Lasserre, G. Foret, S. Cautenet, J.F. Leon, M.O. Andreae, **O.L. Mayol-Bracero**, R. Gabriel, P. Chazette, R. Roca, Modelling the transport of aerosols during INDOEX 1999 and comparison with experimental data. Part 2: Continental aerosols and their optical depth, *Atmos. Environ.*, 38, 1823-1837, 2004.
 29. Guyon, P., B. Graham, G. Roberts, **O.L. Mayol-Bracero**, W. Maenhaut, P. Artaxo, M.O. Andreae, Sources of optically active aerosol particles over the Amazon forest, *Atmos. Environ.*, 38, 1039-1051, 2004.
 30. Graham, B., P. Guyon, W. Maenhaut, P.E. Taylor, M. Ebert, S. Matthias-Maser, **O.L. Mayol-Bracero**, R.H.M. Godoi, P. Artaxo, F.X. Meixner, M.A. Lima Moura, C.H. Eca D'Almeida Rocha, R.V. Grieken, M.M. Glovsky, R. Flagan, M.O. Andreae, Composition and diurnal variability of the natural Amazonian aerosol, *J. Geophys. Res.*, 108, 10.1029/2003JD004049, 2003.
 31. Guyon, P., B. Graham, J. Beck, O. Boucher, **O.L. Mayol-Bracero**, G. Roberts, P. Artaxo, M.O. Andreae, Physical properties and concentration of aerosol particles over the Amazon tropical forest during background and biomass burning conditions, *Atmos. Chem. Phys.*, 3, 951-967, 2003.
 32. Guyon, P., O. Boucher, B. Graham, J. Beck, **O.L. Mayol-Bracero**, G. Roberts, W. Maenhaut, P. Artaxo, M.O. Andreae, Refractive index of aerosol particles over the Amazon tropical forest during LBA-EUSTACH 1999, *J. Aerosol Sci.*, 34, 883-907, 2003.
 33. Guyon, P., B. Graham, G. Roberts, **O.L. Mayol-Bracero**, W. Maenhaut, P. Artaxo, M.O. Andreae, In-canopy gradients, composition, sources and optical properties of aerosol over the Amazon forest, *J. Geophys. Res.*, 108, Art. No. 4591, 2003.
 34. **Mayol-Bracero, O. L.**, M.O. Andreae, R. Gabriel, T.W. Kirchstetter, T. Novakov, J. A. Ogren, P. Sheridan, D. Streets, Carbonaceous aerosol over the Indian Ocean during INDOEX: Chemical characterization, optical properties, and probable sources, *J. Geophys. Res.*, 107, 10.1029/2000JD000039, 2002.
 35. **Mayol-Bracero, O. L.**, P. Guyon, B. Graham, M.O. Andreae, P. Artaxo, M.C. Facchini, S. Decesari, S. Fuzzi, Water-soluble organic compounds in biomass burning aerosols over Amazonia: 2. Apportionment of the chemical composition and importance of the polyacidic fraction, *J. Geophys. Res.*, 107, 10.1029/2001JD000522, 2002.
 36. Reiner, T.; Sprung, D.; Jost, C.; Gabriel, R.; **Mayol-Bracero, O. L.**; Andreae, M. O.; Campos,

- T.; Shetter, R. E., Chemical characterization of pollution layers over the tropical Indian Ocean: Signatures of biomass burning and fossil fuel burning emissions, *J. Geophys. Res.*, 106, 28497-28510, 2002.
37. Dickerson, R. R., M.O. Andreae, T. Campos, **O.L. Mayol-Bracero**, C. Neusuess, D.G. Streets, Emissions of Black Carbon and Carbon Monoxide from South Asia, *J. Geophys. Res.*, 107, 10.1029/JD000501, 2002.
38. Clarke, A. D., S. Howell, P.K. Quinn, T.S. Bates, J.A. Ogren, E. Andrews, A. Jefferson, A. Massling, **O.L. Mayol-Bracero**, H. Maring, D. Savoie, G. Cass, The INDOEX aerosol: A comparison and summary of chemical, microphysical and optical properties observed from land, ship, and aircraft, *J. Geophys. Res.*, 107, 10.1029/JD000572, 2002.
39. Gabriel, R., **O.L. Mayol-Bracero**, M.O. Andreae, Chemical characterization of aerosol collected over the Indian Ocean: Water-soluble ions, *J. Geophys. Res.*, 107, 10.1029/2001JD000034, 2002.
40. Graham, B., **O.L. Mayol-Bracero**, P. Guyon, G. Roberts, S. Decesari, M.C. Facchini, P. Artaxo, P. Köll, M.O. Andreae, Water-soluble organic compounds in biomass burning aerosols over Amazonia: 1. Characterization by GC/MS and NMR, *J. Geophys. Res.*, 107, 10.1029/2002JD000336, 2002.
41. Lelieveld, J., P.J. Crutzen, M.O. Andreae, T. Campos, G.R. Cass, R.R. Dickerson, H. Fischer, J.A. de Gouw, A. Hansel, A. Jefferson, D. Kley, A.T.J. de Laat, S. Lal, M.G. Lawrence, J.M. Lobert, **O.L. Mayol-Bracero**, A.P. Mitra, T. Novakov, S.J. Oltmans, K.A. Prather, V. Ramanathan, T. Reiner, H. Rodhe, H.A. Scheeren, D. Sikka, H.G.J. Smit, J. Williams, M. Zachariasse, The Indian Ocean Experiment: Widespread air pollution from South and Southeast Asia, *Science*, 291, 1031-1036, 2001.
42. **Mayol-Bracero, O. L.**, O. Rosario, C.E. Corrigan, R. Morales, I. Torres, V. Pérez, Chemical characterization of submicron organic aerosols in the tropical trade winds of the Caribbean using Gas Chromatography/Mass Spectrometry, *Atmos. Environ.*, 35, 1735-1745, 2001.
43. Novakov, T., M.O. Andreae, R. Gabriel, T.W. Kirchstetter, **O.L. Mayol-Bracero**, V. Ramanathan, Origin of carbonaceous aerosols over the tropical Indian Ocean: Biomass burning or fossil fuels? *Geophys. Res. Lett.*, 27, 4061-4064, 2000.
44. Novakov, T., C.E. Corrigan, J.E. Penner, C.C. Chuang, O. Rosario, **O.L. Mayol-Bracero**, Organic aerosols in the Caribbean trade winds: A natural source? *J. Geophys. Res.* 102 (D17), 21307-21313, 1997.

Selected Presentations (from 2008 to present)

1. **Mayol-Bracero, Olga L.** Aerosols and Climate, Latin American and Caribbean Aerosol Measurements School: From measurements technologies to applications La Paz, Bolivia, June 22, 2015.
2. Torres-Delgado, E., C. J. Valle-Diaz, D. Baumgardener, W. H. McDowell, G. González, **O. L. Mayol-Bracero**, Understanding the effect of African dust particles on cloud chemistry and microphysics in a tropical montane cloud forest in the Caribbean. Latin American and Caribbean Aerosol Measurements School: From measurements technologies to applications, La Paz, Bolivia, 24 June, 2015.

3. Martínez Cortés, A. M., G. Mocnik, A. D. A. Hansen, **O. L. Mayol-Bracero**. A study of Black Carbon concentrations over Puerto Rico, presented at the Latin American and Caribbean Aerosol Measurements School: from measurements technologies to applications, La Paz, Bolivia, 24 June 2015.
4. **Mayol-Bracero, Olga L.** Properties and Impacts of Long-range Transported African Dust on Puerto Rico, Symposium on Airborne Dust, Climate Change, and Human Health, Miami, Florida, May 20, 2015
5. **Mayol-Bracero, Olga L.** Atmospheric Chemistry and Aerosols Research Group at UPR-RP, AMP UPRRP, Puerto Rico, May 1, 2015
6. Formenti, P., C. Denjean, K. Desboeufs, B. Laurent, S. Chevaillier, M. Maillé, M. Cazaunau, P. Vallejo, M. Quiñones, I.E. Gutierrez-Molina, F. Cassola, P. Prati, E. Andrews, J. Ogren, **O. L.**
7. **Mayol-Bracero**, Size distribution and optical properties of long-range transported African dust, Abstract EGU2015-7702, presented at 2015 General Assembly, EGU, Vienna, Austria, 12-17 April 2015.
8. Denjean, C., S. Caquineau, K. Desboeufs, B. Laurent, M. Quiñones, P. Vallejo, **O. L. Mayol-Bracero**, P. Formenti, Does the long-range transport of African mineral dust across the Atlantic enhance their hygroscopicity?, Abstract EGU2015-7790, presented at 2015 General Assembly, EGU, Vienna, Austria, 12-17 April 2015.
9. Desboeufs, K., . Formenti; S. Triquet; B. Laurent; C. Denjean; I. E. Gutteriez-Moreno; **O. L. Mayol-Bracero**, Characterisation of nutrients wet deposition under influence of Saharan dust at Puerto-Rico in Caribbean Sea, presented at 2015 General Assembly, EGU, Vienna, Austria, 12-17 April 2015.
10. Laurent, B., P. Formenti, K. Desboeufs, J. Vincent, C. Denjean, G. Siour, and **O. L. Mayol-Bracero**, Modeling of intercontinental Saharan dust transport: What consequences on atmospheric concentrations and deposition fluxes in the Caribbean? presented at 2015 General Assembly, EGU, Vienna, Austria, 12-17 April 2015.
11. Torres-Delgado, E., C. J. Valle-Diaz, D. Baumgardener, W. H. McDowell, G. González, **O. L. Mayol-Bracero**, Rain chemistry and cloud composition and microphysics in a Caribbean tropical montane cloud forest under the influence of African dust, presented at the European Geosciences Union General Assembly 2015, EGU, Vienna, Austria, 16 April 2015.
12. Vallejo, P., P. Formenti, K. Desboeufs, M. Quiñones, S. Chevaillier, S. Santos, E. Andrews, J.A. Ogren, **O. L. Mayol-Bracero**, Chemical Composition of the Aerosol Fine Fraction during African Dust Events as part of the Dust-ATtACK Experiment in the Caribbean Region, Abstract EGU2015-14063, presented at 2015 General Assembly, EGU, Vienna, Austria, 12-17 April 2015.
13. Torres-Delgado, E., C. J. Valle-Diaz, D. Baumgardener, W. H. McDowell, G. González, **O. L. Mayol-Bracero**, Impact of African dust on cloud and rain chemistry and cloud microphysics in Caribbean cloud forest, presented at the 35rd Puerto Rico Interdisciplinarity Scientific Meeting 50th Junior Technical Meeting, Universidad de Puerto Rico, Río Piedras Campus, San Juan, Puerto Rico, 29 March 2015.
14. Martínez Cortés, A. M., **O. L. Mayol-Bracero**. A study of equivalent black carbon

- concentrations over Puerto Rico using a light transmission method, presented at the 35th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), 50th Junior Technical Meeting, University of Puerto Rico-RP, Puerto Rico, March 2015.
15. Valle-Díaz, C.J., E. Torres-Delgado, T. Lee, J.L. Collett Jr., W.H. McDowell, L.A. Cuadra-Rodríguez, K.A. Prather, **O.L. Mayol-Bracero**, Impact of long-range transported African dust events on cloud chemistry at a Caribbean tropical montane cloud forest. Abstract S3.3, presented at 13th Quadrennial iCACGP Symposium - 13th IGAC Science Conference on Atmospheric Chemistry, Natal, Brazil, 22-26 September 2014.
 16. Torres-Delgado, E., C. J. Valle-Díaz, D. Baumgardner, W. H. McDowell, **O. L. Mayol-Bracero**, Rain chemistry and cloud composition and microphysics in a tropical cloud forest under the influence of African dust, presented at the 13th Quadrennial ICACGP Symposium 13th IGAC Science Conference on Atmospheric Chemistry, Natal, Brazil 23 September 2014.
 17. Quiñones, M., **O. L. Mayol-Bracero**, P. Vallejo, I. Gutiérrez, E. Andrews, J. A. Ogren, and P. Formenti, African dust impact on the size distribution of aerosols in the Caribbean: Observations from Atmospheric Observatory in Cabezas de San Juan, Puerto Rico, Abstract S149. 6th Symposium on Aerosol-Cloud-Climate Interactions, 94th Annual Meeting, American Meteorological Society, Atlanta, Georgia, 2-6 Feb 2014.
 18. DeMott, P. J., T. C. Hill, M. J. Ruppel, K. A. Prather; D. B. Collins, J. L. Axson, T. Lee, C. Y. Hwang; R. C. Sullivan, G. R. McMeeking, R. Mason, A. K. Bertram, **O. L. Mayol-Bracero**, and E. R. Lewis (2014). Investigations of Marine Ice Nucleating Particles. Abstract 10.1. 6th Symposium on Aerosol-Cloud-Climate Interactions, 94th Annual Meeting, American Meteorological Society, Atlanta, Georgia, 2-6 Feb 2014.
 19. Valle-Díaz, C.J., E. Torres-Delgado, T. Lee, J. L. Collett, L. A. Cuadra-Rodríguez, K. A. Prather, **O. L. Mayol-Bracero**, Impact of Long-Range Transported African Dust Events on Cloud Chemistry at a Caribbean Tropical Montane Cloud Forest, Abstract A41G-0160, presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec 2013.
 20. Martínez-Sánchez, O., **O. L. Mayol-Bracero**, P. Sepulveda-Vallejo, A. Heymsfield, Low and Mid Level Tropical Atmosphere Characterization during African Dust Outbreaks Using Particle Size Distribution Data Retrieved from ICE-T and PRADACS Field Studies, Abstract A23E-0307, presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec 2013.
 21. DeMott, P. J., T. C. Hill, M. J. Ruppel, K. A. Prather, D. B. Collins, J. I. Axson, T. Lee, C. Y. Hwang, R. C. Sullivan, G. R. McMeeking, R. Mason, A. K. Bertram, **O. L. Mayol-Bracero**, Ernie R. Lewis, Measurements to Fill Knowledge Gaps on Ice Nucleating Particle Sources over Oceans, Abstract A32C-05, presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec 2013.
 22. Weinzierl, B., A. Ansmann, O. Reitebuch, V. Freudenthaler, T. Müller, K. Kandler, D. Althausen, R. Busen, M. Dollner, A. Dörnbrack, D. A. Farrell, S. Gross, K. Heimerl, A. Klepel, T. B. Kristensen, **O. L. Mayol-Bracero**, A. Minikin, D. Prescod, J. M. Prospero, S. Rahm, M. Rapp, D. N. Sauer, A. Schaefer, C. Toledano, M. Vaughan, M. Wiegner, The Saharan Aerosol Long-range Transport and Aerosol-Cloud-Interaction Experiment SALTRACE 2013 – Overview and Early Results, Abstract A52D-02, presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec 2013.

23. Spiegel, J.K., N. Buchmann, **O. L. Mayol-Bracero**, C. J. Valle-Díaz, L. A. Cuadra-Rodríguez; K.A. Prather; S. Mertes; W. Eugster, 6th International Conference on Fog, Fog Collection and Dew, Yokohama, Japan, May 2013.
24. Scholl, M., **O.L. Mayol-Bracero**, C.J. Valle-Díaz, and T. Heartsill-Scalley, Quantifying cloud water in the hydrologic budget of the Luquillo Mountains, Puerto Rico, 6th International Conference on Fog, Fog Collection and Dew, Yokohama, Japan, May 2013.
25. **Mayol-Bracero, O. L.** Atmospheric Chemistry in Puerto Rico, 1st America's Working Group, Bogota, Colombia, January 2013.
26. **Mayol-Bracero, O. L.**, Puerto Rico African Dust and Cloud Study, LTER Annual Meeting, UPRRP, January 2013.
27. **Mayol-Bracero, O. L.**, Atmospheric Observatory at CSJ, Fideicomiso Conservación de Puerto Rico, San Juan, PR, December 13, 2012.
28. Mertes, S., L. Schenk, J. Schneider, A. Roth, **O. L. Mayol-Bracero**, Physico-chemical characterization of cloud drop residues and interstitial particles observed inside trade wind cumuli during the Puerto Rican African Dust And Cloud Study (PRADACS), Abstract A23F-0295, presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec 2012.
29. Valle-Díaz, C.J., Torres-Delgado, E., Zurcher F., Gioda A., Lee, T., Collett J., Fitzgerald E.M., Zauscher, M.D., Cuadra-Rodríguez, L.A., Prather, K.A., Spiegel J.K., Eugster, W., Mertes, S., Schenk, L., Roth, A., Schneider, J., Baumgardner, D., **Mayol-Bracero, O.L.** An Overview of the Puerto Rico African Dust and Clouds Study (PRADACS) – Aerosol and Cloud Measurements at a Caribbean Tropical Montane Cloud Forest. International Global Atmospheric Chemistry Conference, Beijing, China, September 2012.
30. Baumgardner, D., R. Newton, **O.L. Mayol-Bracero**, C.J. Valle-Díaz, F. Zurcher, S. Mertes, Identifying cloud processed aerosol particles with light depolarization, European Aerosol Conference, Granada, Spain, September 2012.
31. Schneider, J., A. Roth, J. Schmale, S. Mertes, L. Schenk, **O. L. Mayol-Bracero**, C. J. Valle, F. Zurcher, and S. Borrmann, Mass spectrometric analysis of cloud residuals in tropical trade wind cumuli at Pico Este, Puerto Rico, during PRADACS 2011, European Aerosol Conference, Granada, Spain, September 2012.
32. Mertes, S., L. Schenk, J. Schneider, J. Schmale, F. Zurcher, **O.L. Mayol-Bracero**, Aerosol particle activation and cloud drop charges observed inside trade wind cumuli during the Puerto Rican African Dust And Cloud Study, International Conference of Clouds and Precipitation, Leipzig, Germany, July 2012.
33. Valle-Díaz, C.J., Torres-Delgado, E., Zurcher F., Gioda A., Lee, T., Collett J., DeMott P.J., McMeeking, G., Hill T., Franc G., Díaz-Martínez, M., Fitzgerald, E.M., Zauscher, M.D., Cuadra-Rodríguez, L.A., Prather, K.A., Spiegel J.K., Eugster, W., Mertes, S., Schneider, J., **Mayol-Bracero, O.L.** The Puerto Rico African Dust and Clouds Study (PRADACS) – Aerosol and Cloud Measurements at a Caribbean Tropical Montane Cloud Forest. International Conference of Clouds and Precipitation, Leipzig, Germany, July 2012.
34. **Mayol-Bracero, O.L.** and J. M. Prospero, Improving our Understanding of African Dust Transport using the Caribbean Basin as the Receptor, Universidad Autónoma de México,

- México DF, June 6, 2012.
35. **Mayol-Bracero, O.L.**, Measurements of Atmospheric Particles in the Tropics: From the 90s to the Present, Seminars for Volunteers at the LFDP, EL Verde Field Station, Río Grande, Puerto Rico, March 2012.
 36. McMeeking, G., A. Danielczok, H. Bingemer, H. Klein, T. C. Hill, G. D Franc, M. D. Martinez, I. Venero, **O. L. Mayol-Bracero**, K. Ardon-Dryer, Z. Levin, J. Anderson, C. Twohy and P. J DeMott, Measurements of ice nuclei concentrations and compositions in the maritime tropics, Abstract A13A-0203, presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec 2011.
 37. **Mayol-Bracero, O. L.**, Atmospheric Chemistry at ITES UPR-RP: Chemical and Physical Characterization of Atmospheric Particles in the Tropics, AAAS Workshop, Cuba, December 2011.
 38. **Mayol-Bracero, O.L.**, Atmospheric Chemistry at ITES UPR-RP: Chemical and Physical Characterization of Atmospheric Particles in the Tropics, Invited, Seminar Environmental Science Graduate Program, UPR-RP, October 29, 2011.
 39. Valle-Díaz, C.J., Torres-Delgado, E., **Mayol-Bracero, O.L.**, Zurcher, F., Gioda, A.; Lee, T., Collett, J., Prather, K.A. Size-Resolved Chemical Composition of Cloud and Rain Water Collected During the Puerto Rico African Dust and Clouds Study (PRADACS). First International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, PR, October 2011.
 40. Gioda, A., C. J. Valle-Diaz, **O. L. Mayol-Bracero**, Impact of African Dust Events in the Chemical Composition of Cloud Water Sampled at Pico Este, Puerto Rico, First International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, PR, October 2011.
 41. DeMott, P., Gavin R. McMeeking, Myrelis Diaz Martinez, Thomas C. Hill, Gary D. Franc, Anja Danielczok, Heinz Bingemer, Ingrid Venero, James R. Anderson, **O. L. Mayol-Bracero**, J. R. Snider, Göhkan Sever and Ryan C. Sullivan, African Dust and Other Aerosols as Sources of Ice Nuclei in the Eastern Caribbean Region, First International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, PR, October 2011.
 42. Spiegel, J. K., T. Peter, **O. L. Mayol-Bracero**, C. J. Valle, F. Zurcher, N. Buchmann, and W. Eugster, Does long-range transported African Dust affect cloud droplet size distributions in a Tropical Montane Cloud Forest in Puerto Rico?, First International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, PR, October 2011.
 43. Baumgardner, D., R. Newton, **O. L. Mayol-Bracero**, C. J. Valle-Diaz, F. Zurcher, S. Mertes, Cloud Processing of Dust Preliminary Results From ICE-T and PRADACS, First International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, PR, October 2011.
 44. Vallejo, P., P. Formenti, S. Chevaillier and **O. L. Mayol-Bracero**, African Dust in the Caribbean: Impact on the Chemical and Physical Composition of Aerosols at the Atmospheric Observatory in Cabezas de San Juan, Puerto Rico, First International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, PR, October 2011.
 45. Marrero, W., **O. L. Mayol-Bracero**, Chemical Characterization of Atmospheric Particles from Different Sources in the Guanica's Dry Forest: Inorganic and Organic Fraction, First

- International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, PR, October 2011.
46. Santos-Figueroa, G., M. Díaz-Martínez, **O. L. Mayol-Bracero**, Chemical and Molecular Characterization of Primary Biogenic Aerosol Particles in the Caribbean During African Dust Events, First International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, PR, October 2011.
 47. Morales-García, F., A. Kasper-Giebl, H. Puxbaum, S. Metzger, S. Decesari, **O. L. Mayol-Bracero**, Origin and Composition of Aerosols Collected in the Caribbean: Marine Air, African Dust, and Anthropogenic Pollution, First International Workshop on the Long-Range Transport and Impacts of African Dust on the Americas. San Juan, PR, October 2011.
 48. Torres Delgado, E., C. J. Valle Díaz, **O. L. Mayol-Bracero**, F. Zurcher, A. Gioda, T. Lee, J. Collett, E. Fitzgerald, M. Zauscher, K. A. Prather, Size resolved chemical composition of cloud and rain water during the Puerto Rico African Dust and Cloud Studies (PRADACS) campaign, 46th IUPAC General Assembly and 70th Colegio de Químicos Annual Conference and Exhibition, San Juan, Puerto Rico, August 2011.
 49. Vallejo, P, K. Mendez, P. Formenti, S. Chevaillier, and **O. L. Mayol-Bracero**, African dust in the Caribbean: impact on the chemical and physical composition of aerosols at the Atmospheric Observatory in Cabezas de San Juan, Puerto Rico, 43rd IUPAC World Chemistry Congress, 46th IUPAC General Assembly and 70th Colegio de Químicos Annual Conference and Exhibition, San Juan, Puerto Rico, August 2011.
 50. Santos-Figueroa, G., F. Morales-García, **O. L. Mayol-Bracero**, The Carbonaceous Fraction of Atmospheric Aerosols in the Caribbean Region, 10th ICCPA Conference, Vienna, Austria, June 2011.
 51. **Mayol-Bracero, O.L.**, The Impact of Transport on the Physico-Chemical Properties of Caribbean Aerosols during RICO: African Dust and Pollution from North America, Invited, African dust workshop for teachers, NASA & Hampton University – UPR-M, Parguera, June 2011.
 52. Valle-Díaz, C.J., **Mayol-Bracero, O.L.**, Zurcher, F., Gioda, A.; Lee, T., Collett, J., Prather, K.A., Size-Resolved Chemical Composition of Cloud and Rain Water Collected During the Puerto Rico African Dust and Clouds Study (PRADACS), Geophysical Research Abstracts, Vol. 13, EGU2011-9594, 2011.
 53. **Mayol-Bracero, O.L.**, Atmospheric Chemistry and Aerosols, Experiences of an Atmospheric Scientist, PR-SLAMP, Rio Piedras, PR, February, 2011.
 54. **Mayol-Bracero, O. L.**, Atmospheric Chemistry and Aerosols at ITES UPR-RP: Chemical and Physical Characterization of Atmospheric Particles in the Tropics, IGERT Meeting, January 2011.
 55. Marrero-Ortiz, W., **O.L. Mayol-Bracero**, Inorganic and Organic Chemical Composition of Atmospheric Particles in the Guánica's Dry Forest, Abstract A41A-0048 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 December 2010.
 56. Valle-Díaz, C. J., **O.L. Mayol-Bracero**, F. Zurcher, A. Gioda, T. Lee, J. L. Collet Size-resolved Chemical Composition of Cloud and Rain Water Collected during the Puerto Rico African Dust and Clouds Study (PRADACS) Campaign, Abstract 13A-0179 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 December 2010.

57. Morales-García, F., A. Kasper-Giebl, H. Puxbaum, S. Metzger, S. Decesari, **O. L. Mayol-Bracero**, The Organic Fraction of Aerosols in the Caribbean, IGAC-ICACGP Joint Conference, Canada, July 2010.
58. **Mayol-Bracero, O.L.**, H. Rivera, J.A. Ogren, E. Andrews, P. Sheridan, Overview of the Physical and Radiative Properties of Atmospheric Particles at Cape San Juan, Puerto Rico (CPR station), NOAA ESRL Annual Conference, Boulder, Colorado, March 2010.
59. Erazo-Oliveras, A., **Mayol-Bracero, O.L.**, Ríos-Dávila, R.A., Improving Slow Sand Filters for Communities with Low Incomes and Limited Water, 30th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-RUM, PR, March 2010.
60. Marrero-Ortiz, W. **O. L. Mayol-Bracero**, Chemical composition of atmospheric particles in the Guanica's dry forest: carbonaceous aerosols in African dust, LTER Annual Meeting, University of Puerto Rico, Rio Piedras, January 2010.
61. Erazo, A., R. Rios-Davila, **O.L. Mayol-Bracero**, Improving Slow Sand Filters (SSF) for communities with low incomes and limited water Access, LTER Annual Meeting, University of Puerto Rico, Rio Piedras, January 2010.
62. Rivera H.; J. A. Ogren; P. J. Sheridan; **O. L. Mayol-Bracero**, Physical and Radiative Properties of Aerosol Particles across the Caribbean Basin: A Comparison between Clean and Perturbed African Dust and Volcanic Ash Air Masses, Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract A13A-0189, 2009.
63. Soto-Garcia, L.; M. O. Andreae; P. P. Artaxo; W. Maenhaut; T. Kirchstetter; J. C. Chow; **O. L. Mayol-Bracero**, Carbonaceous and Inorganic Composition of Aerosols in the Brazilian Amazon, Eos Trans. AGU, 90(52),), Fall Meet. Suppl., Abstract A53E-02, 2009.
64. **Mayol-Bracero, O.L.**, Carbonaceous aerosols over the Caribbean Region, SOLAS Open Science Conference, November, 2009, Barcelona, Spain.
65. **Mayol-Bracero, O. L.**, F. Morales-García, J.J.N. Lingard, J.B. McQuaid, L. Gomes, G.P. Frank, M.O. Andreae, L. Di Girolamo, A. Kasper-Giebl, H. Puxbaum, The Impact of Transport on the Physico-Chemical Properties of Caribbean Aerosols: African Dust and Pollution from North America. IGAC SSC Meeting, October 2009, Kyoto University, Kyoto, Japan.
66. **Mayol-Bracero, O. L.** Atmospheric Chemistry and Aerosols: Experiences of an Atmospheric Scientist, PRLSAMP Meeting, 11 September, 2009, UPR-RP, San Juan, PR.
67. Morales-García, F., **O. L. Mayol-Bracero**, M. Repollet-Pedrosa, A. Kasper-Giebl, C. Ramírez- Santa Cruz, H. Puxbaum, Aerosol Collected at a Tropical Marine Environment: Size-Resolved Chemical Composition Using IC, TOC, and Thermal-Optical Analyses, AGU 2009 Joint Assembly, Toronto, Canada, May 2009.
68. Colon, L., **O. L. Mayol-Bracero**, P. Formenti, F. Mazzei, Atmospheric Aerosols in the Guánica Dry Forest, AGU 2009 Joint Assembly, Toronto, Canada, May 2009.
69. **Mayol-Bracero, O. L.**, The Environmental Impact of Atmospheric Particles, Academia Bautista de Puerto Nuevo, Día del Planeta Tierra, PR, May 2009.
70. **Mayol-Bracero, O. L.**, The Chemical Composition of Aerosols, Clouds, and Rainwater in a Caribbean Tropical Montane Cloud Forest, European Geophysical Union Conference, Vienna, Austria, April 2009.

71. Morales-García, F., **O. L. Mayol-Bracero**, M. Repollet-Pedrosa, A. Kasper-Giebl, C. Ramírez-Santa Cruz, H. Puxbaum, Aerosols collected at a tropical marine environment: Size-resolved chemical composition using IC, TOC, and thermal-optical analyses, 29th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-RP, PR, March 2009.
72. Vallejo, P., R. O. Rivera-Hernández, A. Gioda, **O. L. Mayol-Bracero**, Atmospheric Particles in the Caribbean: Impact on the chemical composition of aerosols, clouds and rainwater at a tropical montane cloud forest, 29th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-RP, PR, March 2009.
73. Santos, G., A. Gioda, **O. L. Mayol-Bracero**, Size-Resolved Chemical Composition of African Dust Particles over the Caribbean: Focusing in the Carbonaceous Fraction, 29th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-RP, PR, March 2009.
74. Colon, L., **O. L. Mayol-Bracero**, P. Formenti, F. Mazzei, Atmospheric Aerosols in the Guánica Dry Forest, 29th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-RP, PR, March 2009. Forest, 29th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico-RP, PR, March 2009.
75. **Mayol-Bracero, O. L.**, Measurements of Atmospheric Particles in Cabezas de San Juan: From the 90s to the present, Presentación Oral, Fideicomiso de Conservación de PR, Reserva Natural de Cabezas de San Juan, Fajardo, PR, March 2009
76. **Mayol-Bracero, O. L.**, The Environmental Impact of Atmospheric Particles: Results from Studies over the Tropics, Presentación Oral, Salud Pública, Recinto de Cs Médicas, UPR, PR, March 2009.
77. **Mayol-Bracero, O. L.**, The Impact of Transport on the Physico-Chemical Properties of Caribbean Aerosols during RICO: African Dust and Pollution from North America, Institute of Geophysics, University of Warsaw, Poland, February 2009.
78. **Mayol-Bracero, O. L.**, Aerosols and Climate in Tropical Regions: Carbonaceous Aerosols from Biomass Burning in the Brazilian Amazon, Carbon Cycling and Climate Change Symposium, University of Puerto Rico-RP, PR, January 2009.
79. Gioda, A., **O.L. Mayol-Bracero**, G.J. Reyes-Rodriguez, G. Santos-Figueroa, J. Collett, S. Decesari, M.C.K.V. Ramos, H.J.C. Bezerra-Netto, F.R. Aquino Neto, The Impact of Long-range Transport on the Chemical Composition of Aerosol, Cloud, and Rainwater in Puerto Rico, IGAC 10th International Conference, Annecy, France, September 2008.
80. **Mayol-Bracero, O. L.**, L. L. Soto-García, M. O. Andreae, P. Artaxo, W. Maenhaut, T. Kirchstetter, T. Novakov, Black Carbon and Organic Carbon during SMOCC: The Absorbing Fraction of Biomass Burning Aerosols in the Amazon Basin, 9th International Conference on Carbonaceous Particles in the Atmosphere (ICCPA), Berkeley, California, August 2008.
81. Gomes, G., **O. L. Mayol-Bracero**, F. Morales, G. Frank, J. J. N. Lingard, J. McQuaid, Anthropogenic and Mineral Dust Aerosols over the Western Atlantic Ocean and their Role in Regulating Cloud Condensation Nuclei, International Conference on Clouds and Precipitation (ICCP), Cancun, Mexico, July 2008.
82. Vallejo, P., A. Gioda, **O. L. Mayol-Bracero**, The Influence of African Dust Particles on the Chemical Composition of Rainwater at El Verde, Puerto Rico: Evaluation of the NADP

- Historical Data from 1985 to 2007, 28th Puerto Rico Interdisciplinary Scientific meeting (PRISM), University of Puerto Rico, Arecibo, PR, March 2008.
83. Morales-García, F., **O.L. Mayol-Bracero**, S. Metzger, J. Lelieveld, Hygroscopicity of Atmospheric Particles in the Caribbean, 28th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico, Arecibo, PR, March 2008.
 84. Santos Figueroa, G., A. Gioda, **O.L. Mayol-Bracero**, The Size-Resolved Carbonaceous Fraction of African Dust Particles Over the Caribbean During 2007 Summer Months, 28th Puerto Rico Interdisciplinary Scientific meeting (PRISM), University of Puerto Rico, Arecibo, PR, March 2008.
 85. Reyes-Rodríguez, G. J., A. Gioda, **O.L. Mayol-Bracero**, Chemical Characterization of Clouds and Rainwater Collected in a Tropical Montane Cloud Forest in Puerto Rico under the Influence of Different Types of Air Masses, 28th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico, Arecibo, PR, March 2008.
 86. Villanueva, C., **O. L. Mayol-Bracero**, The Impact of African Dust and Soufriere Hills' Volcanic Ash on the Physical and Radiative Properties of Aerosol Particles in the Caribbean, 28th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico, Arecibo, PR, March 2008.
 87. Ibarra, K., **O. L. Mayol-Bracero**, Can We See the Impact of Anthropogenic Pollution in El Yunque National Forest? 28th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico, Arecibo, PR, March 2008.
 88. Santos Figueroa, G., A. Gioda, **O.L. Mayol-Bracero**, Size-Resolved Chemical Composition of African Dust Particles over the Caribbean: How About Carbonaceous Aerosols? 4th RISE Area Conference, University of Puerto Rico, Rio Piedras, PR, March 2008.
 89. **Mayol-Bracero, O. L.**, L. L. Soto-García, M. O. Andreae, P. Artaxo, W. Maenhaut, T. Kirchstetter, T. Novakov, Black Carbon and Organic Carbon in Biomass Burning Aerosols, Amazonian Aerosols Workshop, Manaus, Brazil, February 2008.
 90. **Mayol-Bracero, O. L.**, L. L. Soto-García, M. O. Andreae, P. Artaxo, W. Maenhaut, T. Kirchstetter, T. Novakov, Size-Resolved BC and OC during Biomass Burning in the Brazilian Amazon, Amazonian Aerosols Workshop, Manaus, Brazil, February 2008.

SKILLS

Analytical instrumentation: GC/MS, TD/GC/MS, GC/FID, GC/ECD, Purge and Trap, Thermal Desorption, Evolved Gas Analysis, Thermal/optical analysis, IC, SEM/EDS, HPLC, ICP and H-NMR. **Sampling instrumentation:** Nutech Gas Sampler, Lundgren Cascade Impactor, Dekati low-pressure impactor, MOUDI, Hi-Volume Particle Sampler, High-Volume Dichotomous Sampler, Stacked-Filter Units, Condensation Particle Counter, SMPS, nephelometer, aethalometer, sunphotometer, PSAP, CLAP, cloud samplers, rain collectors, liquid water content, backscattered cloud probe, and weather monitoring.

MEMBERSHIP OF INTERNATIONAL COMMITTEES AND OBSERVATION NETWORKS

2016 – present	Member of the WMO scientific advisory group on aerosols.
2015 – present	Member of the scientific steering committee of the International Commission on Atmospheric Chemistry and Global Pollution (iCACGP)
2009 – 2014	Member of the scientific steering committee of the International Global Atmospheric Chemistry Programme (IGAC)
2014 – present	Contributing-leading author to the ongoing UNEP and CCAC Regional Assessment of Short-Lived Climate Pollutants (SLCPs) in Latin America and the Caribbean.
2013 – present	Member of the implementation committee of the IGAC Americas Working Group
2004 – present	Cape San Juan Atmospheric Observatory (PI Olga L Mayol-Bracero) as part of NOAA ESRL's aerosol network.
2005 – present	Cape San Juan Atmospheric Observatory, part of NASA's Aeronet.
2004 – 2015	Cape San Juan Atmospheric Observatory, contributing station to WMO GAW.
2015 – present	Cape San Juan Atmospheric Observatory, WMO GAW regional station.

NATIONAL AND INTERNATIONAL PROJECTS AND COLLABORATIONS

2015 – present	Black carbon concentrations over Puerto Rico using the Aethalometer , project in collaboration with G. Mocnik (Aerosol d.o.o.) and A. Hansen (Magee Scientific).
2015 – present	The Caribbean Aerosol-Health Network , project in collaboration with University of Miami (J. Prospero), Caribbean Institute of Hydrology and Meteorology (CIMH) (D. Farrel and A. Sealy), Université des Antilles et de la Guyane (J. Molinie).
2013 – 2018	Luquillo Critical Zone Observatory (LCZO) : The role of hot spots and hot moments in tropical landscape evolution and functioning of the critical zone. NSF Funded (Impacts of intercontinental transport of African dust on incoming radiation, cloud formation, and nutrient inputs), project in collaboration with University of New Hampshire (W. McDowell), USGS – Virginia (M. Scholl), USDA International Institute of Tropical Forestry (G. Gonzalez), University of Miami – RSMAS (J. Prospero), UNAM – Mexico (D. Baumgardner), UPR – Humacao (D. Fernandez), The Hebrew University of Jerusalem, Israel (A. Angert), NOAA ESRL (J. A. Ogren, E. Andrews)
2013 – present	National Center for Atmospheric Research, Diversity Funds , Integration of University of Puerto Rico Ground-Based Aerosol/Cloud Measurements with In-Situ Cloud Observations from NCAR's Airborne Platforms (G-V and C-130) during the PREDICT and ICE-T Field Experiments. Project in collaboration with Dr. A. Heymsfield (NCAR)
2013 – present	The Saharan Aerosol Long-range Transport and Aerosol-Cloud-Interaction

- Experiment (SALTRACE)**, in collaboration with the SALTRACE Team, leader Dr. Bernadett Weinzierl (German Aerospace Center, Institute of Atmospheric Physics, Germany)
- 2013 – present **Primary biogenic aerosol particles in PR, sources and contribution to total aerosol burden (PiBAP)**, in collaboration with University of Puerto Rico – Medical Sciences Campus (B. Bolaños) and Georgia Tech (K. Konstantinidis)
- 2010 – present **Dust, Aging and Transport, from Africa to the Caribbean (Dust – ATTACK)**, in collaboration with Dr. P. Formenti (Université Paris Est Créteil - Laboratoire Interuniversitaire des Systèmes Atmosphériques)
- 2010 – 2015 **Aerosol climatology (AEROCLIM) in Puerto Rico**, in collaboration with NOAA ESRL (J. A. Ogren, E. Andrews).
- 2011 – 2013 **Ice in Clouds Experiment – Tropics (ICE-T)**, project in collaboration with ICE-T researchers (A. Heymsfield - NCAR, P. J. Collett – Colorado State University, J. Anderson – Arizona State University, and K. Prather – UCSD and Scripps)
- 2009 – 2013 **Puerto Rico African Dust and Cloud Study (PRADACS)** – NSF Funded project (Impact of African Dust on Clouds and Precipitation in a Caribbean Tropical Montane Cloud Forest, in collaboration with UCSD/Scripps (K. Prather – CoPI), U. of Colorado – Boulder (E. Andrews – CoPI), Colorado State University (J. Collett), ETH – Switzerland (W. Eugster), Max Planck Institute for Chemistry – Germany (S Borrmann, J. Schneider), Institute for Tropospheric Research – Leibzig (S. Mertes), University of Paris – East LISA (P. Formenti, K. Desboeufs), UNAM – Mexico (D. Baumgardner)
- 2004 – 2008 **Puerto Rico Aerosols and Clouds Study (PRACS)**, NSF funded project, in collaboration with UNAM – Mexico (G. Raga, D. Baumgardner), Institute for Tropospheric Research – Leibzig (S. Mertes), Max Planck Institute for Chemistry – Germany (S. Borrmann, J. Schneider, G. Frank. U. Dusek), University of Manchester (J. Allan, M. Gysel), Vienna University of Technology - Austria (H. Puxbaum, A. Kasper-Giebl), Institute of Atmospheric Sciences and Climate, Bologna, Italy (M. C. Facchini, S. Decesari), Pontificia Universidade Católica do Rio de Janeiro - PUC-Rio, Brazil (A. Gioda)
- 2004 – 2008 **Rain In Cumulus over the Ocean Experiment (RICO)** – NSF funded project (Tropical Marine Aerosols in the Trade Winds: Towards a Better Understanding of the Role of Organic Aerosols in CCN), in collaboration with University of Illinois (R. Rauber, H. Ochs), University of Leeds, UK (M. H. Smith, J. McQuaid), Meteo-France (L. Gomes), University of Warsaw and SIO (E. Grzeszczak, P. Flatau), Arizona State University (J. Anderson).
- 2002 – 2005 **The Smoke Aerosols, Clouds, Rainfall and Climate: Aerosols from Biomass Burning Perturb Global and Regional Climate (LBA - SMOCC)** in Brazil, in collaboration and with the financial support of the Max Planck Institute for Chemistry – Mainz (M. O. Andreae), in collaboration with

- University of Sao Paulo (P. Artaxo), Institute of Atmospheric Sciences and Climate, Bologna, Italy (M. C. Facchini, S. Decesari), and Lawrence Berkeley National Laboratory – LBNL, CA (T. Novakov, T. W. Kirchstetter), LBA stands for Large Scale Biosphere-Atmosphere Experiment in Amazonia.
- 2001 – 2013 **Cooperative LBA Airborne Regional Experiment (LBA – CLAIRE)**, as part of postdoctoral experience in the Max Planck Institute for Chemistry, Mainz, Germany, as part of postdoctoral experience in the Max Planck Institute for Chemistry, Mainz, Germany
- 1999 – 2001 **European Studies on Trace Gases and Atmospheric Chemistry as a Contribution to the Large-Scale Biosphere-Atmosphere Experiment in Amazonia (LBA-EUSTACH)**, as part of postdoctoral experience in the Max Planck Institute for Chemistry, Mainz, Germany
- 1998 – 2001 **INDian Ocean EXperiment (INDOEX)**, as part of postdoctoral experience in the Max Planck Institute for Chemistry, Mainz, Germany

SUPERVISION OF STUDENTS AND POSTDOCS

- 2002 – present **Graduated:** Postdoc (2), PhD Chemistry (3), PhD Physics (1), MS Chemistry (1), MS Environmental Health (1), BS Chemistry, with thesis (5), BS Environmental Science, with thesis (5) – University of Puerto Rico, BS Chemistry (25), BS Physics (4), BS Biology (2), BS Environmental Science (3) **Current:** PhD Chemistry (3), PhD Environmental Science (3), MS Environmental Science (1), BS Environmental Science (2)

PROFESSIONAL ORGANIZATION MEMBERSHIPS

American Geophysical Union
European Geophysical Society

FOREIGN LANGUAGES

Fully bilingual (Spanish-English)
Can speak, read and understand some French, Portuguese, and German.

GRADUATE AND POSTDOCTORATE ADVISORS

Theses Advisors: Osvaldo Rosario (UPR-RP, Puerto Rico), Tica Novakov (Lawrence Berkeley National Laboratory, USA)
Postdoctorate Advisor: Meinrat O. Andreae (Max Planck Institute for Chemistry, Germany)