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Personal Information

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Educational Background

2005 – present **Postdoctoral Scholar**, Georgia Institute of Technology

1999 – 2005 **Ph.D** in Environmental Engineering, University of the Aegean, Greece

Thesis: Simulation of physicochemical processes of biogenic aerosols: Their impact on air quality and climate change in the Mediterranean area (in Greek). Grade: 10/10

1995 – 1999 **Diploma**: University of the Aegean, Department of Environment, Greece

Grade: 8.6 / 10
Graduate rank: 3rd

Thesis: Anaerobic Processes in landfill sites – Model for the prediction of biogas production rate from landfills, (in Greek)
Grade: 10/10

Languages

Greek (Native Language)

English (First Certificate in English)

German (Zertifikat, Goethe Institute)

French (A1,A2,A3)

Professional experience and Participation in Research Projects

2005-2006 Toward an improved representation of aerosol-cloud interactions in global models: studies integrating NASA GMI and remote sensing products, NRA-03-OES-04

- 2005-2006 Chemistry, Aerosols, and Climate: Tropospheric Unified Simulation (CACTUS), NRA-02-OES-06 [Investigations that Contribute to the NAS Earth Science Enterprise's Multidisciplinary Research in Climate, Chemistry, and Global Modeling]
<http://www-as.harvard.edu/chemistry/trop/ids.html>
- 2005 Pythagoras II - Modeling the PM pollution -formation of new particles (nucleation) in the Mediterranean area.
- 2004-2005 Pythagoras – The contribution of landfill biogas to climate change, air pollution and its renewable energy potential
- 2002-2004 BOND: Biogenic aerosols and air quality in the Mediterranean Area, European Commission, EVK2-CT-200100107
<http://milos.ipta.demokritos.gr/bond/>
- 2002-2004 AEOLOS: Assessment of Impact of SF6 & PFCs Reservoir Tracers on Global Warming, European Commission, ENK6-CT-2001-00501. <http://milos.ipta.demokritos.gr/aeolos/>
- 1997-1999 Participation in 9 research projects spanning a wide range of subjects in the field of Waste Management with director Prof. C.P. Halvadakis (University of the Aegean – Department of Environment, Greece, e-mail: khalv@aegean.gr).

Publications **Refereed Publications in Journals**

Sotiropoulou, R.E.P., A. Nenes, P.J. Adams, and J.H. Seinfeld, Impact of CCN Prediction Uncertainty on the Aerosol Indirect Effect: A Global Modeling Assessment, *in preparation*

Medina, J., A. Nenes, **R.E.P. Sotiropoulou**, L.D. Cottrell, L.D. Ziemba, P.J.

Beckman, and R.J. Griffin, Cloud Condensation Nuclei (CCN) closure during the ICARTT 2004 campaign: a) effects of size-resolved composition, in review

Sotiropoulou, R.E.P., E. Tagaris, C. Pilinis, T. Anttila and M. Kulmala (2006), Modeling New Particle Formation During Air Pollution Episodes: Impacts on Aerosol and Cloud Condensation Nuclei, *Aeros. Sci. Tech.*, **40**, 557–572

Sotiropoulou, R.E.P., J. Medina, and A. Nenes (2006), CCN predictions: Is theory sufficient for assessment of the indirect effect?, *Geophys. Res. Lett.*, **33**, L05816, doi:10.1029/2005GL025148

Vlachogiannis, D., **R.E.P. Sotiropoulou**, A. Sfetsos, W. Zhong, J. D. Heigh, D. Eriskin, S. Hartving, C. Chatzichistos, E. Tagaris, C. Pilinis, R. Kleven, A. Stubos, and J. Muller (2005), Assessment of the Impact of SF₆ and PFCs Reservoir Tracers on Global Warming, the AEOLOS study, *Environ. Sci.*, **2**, (2-3) 263 – 272, doi: 10.1080/15693430500396170

Sotiropoulou, R.E.P., E. Tagaris, C. Pilinis, S. Andronopoulos, A. Sfetsos and J.G. Bartzis (2004), The BOND project: Biogenic aerosols and air quality in Athens and Marseille Greater Areas, *J. Geoph. Res.*, **109**, D05205, doi:10.1029/2003JD003955

Sotiropoulou, R.E.P., E. Tagaris and C. Pilinis (2004), An estimation of the spatial distribution of agricultural ammonia emissions in the Greater Athens Area, *Sci. Total Environ.*, **318**, 159-169

Tagaris, E., **R.E.P. Sotiropoulou**, C. Pilinis and C.P. Halvadakis (2003), A Methodology to Estimate Odors around Landfill Sites: The Use of Methane as an “Odor Index” and Its Utility in Landfill Siting, *J. Air Waste Manage.*, **53** (5), 629-634

Tagaris, E., **R.E.P. Sotiropoulou**, C. Pilinis and C.P. Halvadakis (2003), Atmospheric Methane Transport near landfill Sites, *Waste Manage. Res.*, **21** (1), 62-73

Peer-reviewed Conference Proceedings

Sotiropoulou, R.E.P., and A. Nenes, Uncertainty in Aerosol Indirect Effect from CCN prediction errors: a Global Modeling Assessment, 7th International Aerosol Conference, American Association for Aerosol Research (IAC 2006), St. Paul, Minnesota, October 2006

Sotiropoulou, R.E.P., J. Medina, and A. Nenes, CCN predictions: is theory sufficient for indirect forcing calculations?, American Geophysical Union (AGU), Fall Meeting, San Francisco, California, December 2005

Sotiropoulou, R.E.P., E. Tagaris, C. Pilinis, T. Anttila and M. Kulmala, Modeling new particle formation in the Mediterranean area, 24th Annual Conference, American Association for Aerosol Research (AAAR 2005), Austin, Texas, October 2005

Sotiropoulou, R.E.P., E. Tagaris, C. Pilinis, How biogenic emissions affect aerosol concentrations and radiative forcing in the Mediterranean area, 24th Annual Conference American Association for Aerosol Research (AAAR 2005), Austin, Texas, October 2005

Sotiropoulou, R.E.P., E. Tagaris, C. Pilinis, T. Anttila and M. Kulmala, Estimation of new particle formation in Greater Athens Area, European Aerosol Conference (EAC'2005), Ghent, Belgium, August 2005

Vlachogiannis, D., **R.E.P. Sotiropoulou**, A. Sfetsos, W. Zhong, J. D. Heigh, D. Eriskin, S. Hartving, C. Chatzichistos, E. Tagaris, C. Pilinis, R. Kleven, A. Stubos, and J. Muller, Assesment of the Impact of SF6 and PFCs Reservoir Tracers on Global Warming, the AEOLOS study, 4th International Symposium on Non-CO2 Greenhouse Gases (NCGG-4) Science, Control, Policy and Implementation, Utrecht, The Netherlands, July 2005

Sotiropoulou, R.E.P., Tagaris, E., Pilinis, C., Anttila, T. and Kulmala, M. Modeling new particle formation in the Greater Athens Area, Report Series in Aerosol Science, Eds. M. Kulmala and T.M. Ruuskanen, 73, pp. 288-292, 2004

Tagaris E., **R.E.P. Sotiropoulou**, and C.P. Halvadakis, Methodology for estimating types and quantity of landfilled solid waste: the case of Mytilene Municipality (Greece), ISWA World Environment Congress and Exhibition, Rome, Italy, October 2004

Sfetsos, A., D. Vlachogiannis, N. Gounaris, A. Stubos, **R.E.P. Sotiropoulou**, E. Tagaris, C. Pilinis, C. Chatzichistos and R. Kleven, A methodology for the identification and prediction of weather types using data mining methodologies, 18th International Conference Informatics for the Environmental Protection, Geneva, Switzerland, October 2004

Sotiropoulou, R.E.P., E. Tagaris, C. Pilinis, S. Andronopoulos, A. Sfetsos and J.G. Bartzis, The BOND project: Contribution of biogenic emission to the aerosol budget in the Mediterranean area, European Aerosol Conference (EAC'2004), Budapest, Hungary, September 2004

Sotiropoulou, R.E.P., E. Tagaris, C. Pilinis, D. Vlachogiannis, A. Sfetsos, N. Gounaris, A. Stubos, C. Chatzichristos and R. Kleven. Estimation of the effects of SF6 and PFCS reservoir tracers on atmospheric quality in the North Sea using data from the AEOLOS study, 13th World Clean Air Congress, London, August 2004

Sotiropoulou, R.E.P., E. Tagaris and C. Pilinis, Evaluation of the UAM-AERO and CAMx air quality models using the BOND study, database, Protection and Restoration of the Environment VII, Mykonos, Greece, June 2004

Sotiropoulou, R.E.P., E. Tagaris, C. Pilinis, S. Andronopoulos, N. Gounaris, A. Sfetsos, J.G. Bartzis, Estimation of particulate matter concentrations in the Greater Athens Area by means of the UAM-AERO model, 8th International Conference on Environmental science and Technology, Limnos Island, Greece, September 2003

Tagaris, E., **R.E.P. Sotiropoulou**, C. Pilinis and C.P. Halvadakis, Methane

production and dispersion around landfill sites, 8th International Conference on Environmental science and Technology, Limnos Island, Greece, September 2003

Sotiropoulou, R.E.P., E. Tagaris, C. Pilinis, S. Andronopoulos, N. Gounaris, A. Sfetsos, J.G. Bartzis, Application of the UAM-AERO model in the Greater Athena Area, 4th International Conference on Urban air Quality – Measurements, Modelling and Management, Prague, March 2003

Sotiropoulou, R.E.P. and C. Pilinis. Modeling of photochemical pollution in Athens, Greece – Application of the UAM-AERO and CALGRID modeling systems. Proceedings of the 7th International Conference of Environmental Science and Technology, Ermoupolis, Syros Island, Greece, 2001.

Tagaris, E., **R.E.P. Sotiropoulou**, C. Pilinis and C.P. Halvadakis Methane as Odor Index in Landfill Sites, 7th International Conference on Environmental science and Technology, Ermoupolis, Syros Island, Greece, September 2001

Seminars

Total Quality Management in the Analytical Laboratory, Intensive Program, Mytilene, 1998