

PERSONAL INFORMATION

Family name, First name: Myriokefalitakis, Stylianos (Stelios)

Researcher unique identifier: <http://orcid.org/0000-0002-1541-7680>

URL for web site: www.cosis.net/profile/stelios.myriokefalitakis

• EDUCATION

15/12/2006 – 13/07/2009 **PhD in Atmospheric Chemistry**, Thesis: *Study of the Impact of Heterogeneous Reactions on Tropospheric Ozone, Aerosols and the Radiation Balance of the Atmosphere Using 3-d Global Simulations, Surface and Satellite Data*, Department of Chemistry, University of Crete, Greece

26/11/2004 – 15/12/2006 **Master in Chemistry**, Thesis: *Development of a chemical code and its application to the study of the global distribution of glyoxal and formaldehyde by using a 3-d global model*, Department of Chemistry, University of Crete, Greece

01/10/2000 – 26/11/2004 **University Degree on Chemistry**, Department of Chemistry, University of Crete, Greece, Diploma Thesis: *Application of a 0-d model to simulate the photochemical production of ozone in the marine boundary layer of the East Mediterranean*

• CURRENT POSITIONS (funded)

01/03/2014 – PRESENT **Post-Doc Researcher** “BACCHUS: Impact of Biogenic versus Anthropogenic emissions on Clouds and Climate: towards a Holistic Understanding”, Department of Chemistry, University of Crete, Greece

• PREVIOUS POSITIONS (funded)

01/01/2013 – 31/8/2015 **Post-Doc Researcher** “PANOPLY: Pollution Alters Natural aerosol composition: Implications for Ocean Productivity, cLimate and air quality”, Department of Chemistry, University of Crete, Greece

01/10/2014 – 31/12/2014 **Post-Doc Fellow** “Global Climate Implications of Multiphase Particle Formation; Uncertainties and Importance of New Organic Aerosol Pathways”, NASA Goddard Institute for Space Studies, Earth Sciences Division, Columbia University, USA

01/01/2012 – 31/01/2013 **Post-doc Research** “ECLIPSE: Evaluating the Climate and Air Quality Impacts of Short-lived Pollutants”, Foundation of Research and Technology-Hellas (FORTH), Institute of Chemical Engineering and High Temperature Chemical Processes (ICE-HT), Department of Chemical Engineering, University of Patras, Greece

01/02/2011 – 31/12/2011 **Post-Doc Researcher** “PEGASOS: Pan-European Gas-Aerosols-Climate Interaction Study”, Foundation of Research and Technology-Hellas (FORTH), Institute of Chemical Engineering and High Temperature Chemical Processes (ICE-HT), Department of Chemical Engineering, University of Patras, Greece

01/05/2010 – 20/07/2010 **Post-Doc Researcher** “ARGO: Global Ocean Observing Infrastructure (EURO ARGO/ 704)”, Department of Chemistry, University of Crete, Greece

01/01/2008 – 30/09/2009 **Researcher** “EUCAARI: European Integrated Project on Aerosol Cloud Climate and Air Quality Interactions, Contract No 036833-2”, Department of Chemistry, University of Crete, Greece

01/06/2006 – 30/07/2007 **Researcher** “OOMPH: Organics over the Ocean Modifying Particles in both Hemispheres”, Department of Chemistry, University of Crete, Greece

01/06/2005 – 30/09/2005 **Researcher** “Study of the relative contribution of natural variability and the human factor in the levels and the climatic role of aerosols and ozone in Eastern

Mediterranean and worldwide, using global 3-dimensional simulations”, Department of Chemistry, University of Crete, Greece

01/10/2004 – 31/01/2005 **Researcher** “CREATE: Construction, use and Delivery of an European Aerosol Database, Department of Chemistry, University of Crete, Greece

01/12/2005 – 30/11/2008 **Researcher** “The impact of heterogeneous reactions on the energy balance and the chemical composition of Mediterranean atmosphere using global 3-dimensional simulations, ground and satellite observations”, Department of Chemistry, University of Crete, Greece

01/07/2003 – 31/08/2003 **Researcher**, Laboratory of chemical analysis of “PLASTIKA KRITIS S.A.” (Industry producing plastic materials), Crete, Greece

• **FELLOWSHIPS AND AWARDS**

01/10/2014 – 31/12/2014 Award received from the Fulbright Foundation, Fulbright grant (Fulbright- Hays Act, Public Law 256, Congress), to conduct research at Columbia University, New York, NY, Earth Institute, Centre for Climate Systems Research, and NASA Goddard Institute for Space Studies, US

01/12/2005 – 30/11/2008 PhD Scholarship from the Greek General Secretariat for Research and Technology through the program of research PENED 2003 (03ED373), Department of Chemistry, University of Crete, Greece

• **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

01/12/2008 – 10/09/2010 Assistance in supervision of Master Student (1), Department of Chemistry, University of Crete, Greece

10/09/2010 – PRESENT Assistance in supervision of PhD (1) and MSc (1) Student and Postdoctoral fellow (1), Department of Chemistry, University of Crete, Greece

• **TEACHING ACTIVITIES**

25/11/2010 – 30/06/2013 Teacher of Environmental Literacy – Second Chance School, Institute of Adult Continuing Education, Greece

04/10/2010 – 18/02/2011 Teacher of Meteorology Laboratory Exercises – Department of Organic, Greenhouse Crops and Floriculture, School of Agricultural Technology, Technological and Education Institute of Crete, Greece

01/10/2010 – 30/10/2011 Teacher of Management of Natural Resources and Environment, - Marketing (Commerce and Advertising), Department, School of Management and Economics, Technological and Education Institute of Crete, Greece

WINTER and SUMMER SEMESTERS 2005 – 2009 Teaching assistant in Computational Environmental Chemistry course, Department of Chemistry, University of Crete, Greece

WINTER SEMESTER 2006 Teaching assistant in Analytical Chemistry II Laboratory, Department of Chemistry, University of Crete, Greece

• **ORGANISATION OF SCIENTIFIC MEETINGS**

07/07/2006 – 09/07/2006 Head Organizer of the 12th Chemistry Postgraduate Students Conference, Santorini, Greece

08/07/2005 – 10/07/2005 Co-organizer of the 11th Chemistry Postgraduate Students Conference, Chania, Greece

• **INSTITUTIONAL RESPONSIBILITIES**

WINTER SEMESTER 2011 Extra Academic and Technical Personnel, School of Agricultural Technology, Technological and Education Institute of Crete, Greece

- **COMMISSIONS OF TRUST**

Reviewer of Atmospheric Chemistry and Physics (ACP) international scientific journal

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

26/11/2004 – PRESENT Member of the “Association of Greek Chemists (www.eex.gr)”

- **MAJOR COLLABORATIONS**

Prof. Dr. Maria Kanakidou, University of Crete, Greece

Prof. Dr. Spyros Pandis, University of Patras, Greece, Carnegie Mellon University, USA

Dr. Kostas Tsigaridis, NASA-GISS, Columbia University, USA

Prof. Dr. Athanassios Nenes, Georgia Tech, USA

Prof. Dr. Rainer Volkamer, CIRES, University of Colorado, USA

- **PUBLICATIONS (submitted - peer-reviewed)**

Myriokefalitakis, S., N. Daskalakis, Im, U., Aan de Brugh, M.C. Krol, J. M. J., Voulgarakis, A. and M. Kanakidou: *Origin of Tropospheric Ozone over Eastern Mediterranean: The Importance of Long-Range Transport*, submitted to Sci. Tot. Environ., STOTEN-D-15-04687, 2015.

Kanakidou, M., **Myriokefalitakis, S.**, Daskalakis, N., Fanourgakis, G., Nenes, A., Baker, A., Mihalopoulos, N.: *Past and future changes of organic and inorganic nitrogen global atmospheric deposition*, submitted to J. Atmos. Sci., 2015.

- **PUBLICATIONS (peer-reviewed)**

Myriokefalitakis, S., Daskalakis, N., Mihalopoulos, N., Baker, A. R., Nenes, A. and Kanakidou, M.: *Changes in dissolved iron deposition to the oceans driven by human activity: a 3-D global modelling study*, Biogeosciences, 12, 3973–3992, doi:10.5194/bg-12-3973-2015, 2015.

Stohl, A., Aamaas, B., Amann, M., Baker, L. H., Bellouin, N., Berntsen, T. K., Boucher, O., Cherian, R., Collins, W., Daskalakis, N., Dusinska, M., Eckhardt, S., Fuglestad, J. S., Harju, M., Heyes, C., Hodnebrog, Ø., Hao, J., Im, U., Kanakidou, M., Klimont, Z., Kupiainen, K., Law, K. S., Lund, M. T., Maas, R., MacIntosh, C. R., Myhre, G., **Myriokefalitakis, S.**, Olivié, D., Quaas, J., Quennehen, B., Raut, J.-C., Rumbold, S. T., Samset, B. H., Schulz, M., Seland, Ø., Shine, K. P., Skeie, R. B., Wang, S., Yttri, K. E. and Zhu, T.: *Evaluating the climate and air quality impacts of short-lived pollutants*, Atmos. Chem. Phys. Discuss., 15, 15155–15241, doi:10.5194/acpd-15-15155-2015, 2015.

Eckhardt, S., Quennehen, B., Olivié, D. J. L., Berntsen, T. K., Cherian, R., Christensen, J. H., Collins, W., Crepinsek, S., Daskalakis, N., Flanner, M., Herber, a., Heyes, C., Hodnebrog, Ø., Huang, L., Kanakidou, M., Klimont, Z., Langner, J., Law, K. S., Massling, A., **Myriokefalitakis, S.**, Nielsen, I. E., Nøjgaard, J. K., Quaas, J., Quinn, P. K., Raut, J.-C., Rumbold, S. T., Schulz, M., Skeie, R. B., Skov, H., Lund, M. T., Uttal, T., von Salzen, K., Mahmood, R. and Stohl, A.: *Current model capabilities for simulating black carbon and sulfate concentrations in the Arctic atmosphere: a multi-model evaluation using a comprehensive measurement data set*, Atmos. Chem. Phys. Discuss., 15, 10425–10477, doi:10.5194/acpd-15-10425-2015, 2015.

Quennehen, B., Raut, J.-C., Law, K. S., Ancellet, G., Clerbaux, C., Kim, S.-W., Lund, M. T., Myhre, G., Olivié, D. J. L., Safieddine, S., Skeie, R. B., Thomas, J. L., Tsyro, S., Bazureau, A., Bellouin, N., Daskalakis, N., Hu, M., Kanakidou, M., Klimont, Z., Kupiainen, K., **Myriokefalitakis, S.**, Quaas, J., Rumbold, S. T., Schulz, M., Cherian, R., Shimizu, A., Wang, J., Yoon, S.-C. and Zhu, T.: *Multi-model evaluation of short-lived pollutant distributions over East Asia during summer 2008*, Atmos. Chem. Phys. Discuss., 15,

- 11049–11109, doi:10.5194/acpd-15-11049-2015, 2015.
- Daskalakis, N., **Myriokefalitakis, S.**, and Kanakidou, M.: *Sensitivity of tropospheric loading and lifetimes of short lived pollutants to fire emissions*, Atmos. Chem. Phys., 15, 3543-3563, doi: 10.5194/acp-15-3543-2015, 2015. (Citation No: 1)
- Tsigaridis, K., Daskalakis, N., Kanakidou, M., Adams, P. J., Artaxo, P., Bahadur, R., Balkanski, Y., Bauer, S. E., Bellouin, N., Benedetti, A., Bergman, T., Berntsen, T. K., Beukes, J. P., Bian, H., Carslaw, K. S., Chin, M., Curci, G., Diehl, T., Easter, R. C., Ghan, S. J., Gong, S. L., Hodzic, A., Hoyle, C. R., Iversen, T., Jathar, S., Jimenez, J. L., Kaiser, J. W., Kirkevåg, A., Koch, D., Kokkola, H., Lee, Y. H., Lin, G., Liu, X., Luo, G., Ma, X., Mann, G. W., Mihalopoulos, N., Morcrette, J.-J., Müller, J.-F., Myhre, G., **Myriokefalitakis, S.**, Ng, S., O'Donnell, D., Penner, J. E., Pozzoli, L., Pringle, K. J., Russell, L. M., Schulz, M., Sciare, J., Seland, Ø., Shindell, D. T., Sillman, S., Skeie, R. B., Spracklen, D., Stavrakou, T., Steenrod, S. D., Takemura, T., Tiitta, P., Tilmes, S., Tost, H., van Noije, T., van Zyl, P. G., von Salzen, K., Yu, F., Wang, Z., Wang, Z., Zaveri, R. A., Zhang, H., Zhang, K., Zhang, Q., and Zhang, X.: *The AeroCom evaluation and intercomparison of organic aerosol in global models*, Atmos. Chem. Phys. Discuss., 14, 6027-6161, doi:10.5194/acpd-14-6027-2014, 2014. (Citation No: 26)
- Poupkou, A., Markakis K., Liora N., Giannaros T.M., Zanis P., Im U., Daskalakis N., **Myriokefalitakis, S.**, Kaiser J. W., Melas D., Kanakidou M., Karacostas T., Zerefos C.: *A modelling study of the impact of the 2007 Greek forest fires on the gaseous pollutant levels in the Eastern Mediterranean*, Atmos. Res., doi: 10.1016/j.atmosres.2014.05.015, 2014. (Citation No: 2)
- Im, U., Daskalakis, N., Markakis, K., Vrekoussis, M., Hjorth, J., **Myriokefalitakis, S.**, Gerasopoulos, E., Kouvarakis, G., Richter, A., Burrows, J., Pozzoli, L., Unal, A., Kindap, T., Kanakidou, M.: *Simulated air quality and pollutant budgets over Europe in 2008*, Sci. Tot. Environ., 470-471C, 270-281, doi: 10.1016/j.scitotenv.2013.09.090, 2013. (Citation No: 3)
- Myriokefalitakis, S.**, Tsigaridis, K., Mihalopoulos, N., Sciare, J., Nenes, A., Kawamura, K., Segers, A., and Kanakidou, M.: *In-cloud oxalate formation in the global troposphere: a 3-D modelling study*, Atmos. Chem. Phys., 11, 5761-5782, doi: 10.5194/acp-11-5761-2011, 2011. (Citation No: 69)
- Myriokefalitakis, S.**, Vignati, E., Tsigaridis, K., Papadimas, C., Sciare, J., Mihalopoulos, N., Facchini, M. C., Rinaldi, M., Dentener, F. J., Ceburnis, D., Hatzianastasiou, N., O'Dowd, C.D., van Weele, M., Kanakidou, M.: *Global modelling of the oceanic source of organic aerosols*, Advanc. Met., 2010, 16 pages, doi:10.1155/2010/939171, 2010. (Citation No: 40)
- Vignati, E., Facchini, M.C., Rinaldi, M., Scannell, C., Ceburnis, D., Sciare, J., Kanakidou, M., **Myriokefalitakis, S.**, Dentener, F., O'Dowd, C.D.: *Global scale emission and distribution of sea spray aerosol: Sea-salt and organic enrichment*, Atmos. Environ., 44 (5), 670–677, doi:10.1016/j.atmosenv.2009.11.013, 2010. (Citation No: 84)
- Kanakidou, M., **Myriokefalitakis, S.**, Tsigaridis, K., Daskalakis, N.: *Global sources of organic aerosols in the atmosphere: Reconciling model results with observations*, Geochem. et Cosmochim. Acta, 73 (13), A619, doi:10.1016/j.gca.2009.05.009, 2009.
- Tsigaridis, K., Kanakidou, M., **Myriokefalitakis, S.**, Perakis, L.: *Simplicity versus accuracy in global secondary organic aerosol modelling*, Geochem. et Cosmochim. Acta, 73 (13), A1349, doi:10.1016/j.gca.2009.05.016, 2009.
- Vignati, E., Facchini, M. C., Rinaldi, M., Scannell, C., Ceburnis, D., Sciare, J., Kanakidou, M., **Myriokefalitakis, S.**, Dentener, F., O'Dowd, C. D.: *Impact of global emissions of primary marine organic aerosols*, Geochem. et Cosmochim. Acta, 73 (13), A1388, doi:10.1016/j.gca.2009.05.021, 2009. (Citation No: 2)
- Myriokefalitakis, S.**, Vrekoussis M., Tsigaridis K., Wittrock F., Richter A., Brühl, C., Volkamer R., Burrows J.P., Kanakidou M.: *The influence of natural and anthropogenic secondary*

sources on the glyoxal global distribution, Atmos. Chem. Phys., 8, 4965–4981, doi:10.5194/acp-8-4965-2008, 2008. (Citation No: 94)

Wittrock, F., Richter, A., Oetjen, H., Burrows, J.P., Kanakidou, M., **Myriokefalitakis, S.**, Volkamer, R., Beirle, S., Platt, U., and Wagner, Th.: *Simultaneous Global Observations of Glyoxal and Formaldehyde from Space*, Geophys. Res. Letters, 33, L16804, doi:10.1029/2006GL026310, 2006. (Citation No: 175)

• **PUBLICATIONS (books)**

Kanakidou, M., Mihalopoulos, N., Im, U., **Myriokefalitakis, S.**, Daskalakis, N.: *Drivers of Air Quality in the East Mediterranean*, Advances in Meteorology, Climatology and Atmospheric Physics, Part III, Springer Atmospheric Sciences, C.G. Helmig P.T. Nastos (Eds), 1019-1024, doi: 10.1007/978-3-642-29172-2_142, Online ISBN 978-3-642-29172-2, 2013.

Poupkou, A., Markakis, K., Liora, N., Giannaros, T.M., Im, U., Daskalakis, N., **Myriokefalitakis, S.**, Melas, D., Zanis, P., Kanakidou, M., Zerefos, C.S.: *Study of the Impact of an Intense Biomass Burning Event on the Air Quality in the Eastern Mediterranean*, Advances in Meteorology, Climatology and Atmospheric Physics, Part III, Springer Atmospheric Sciences, C.G. Helmig P.T. Nastos (Eds), 1019-1024, doi: 10.1007/978-3-642-29172-2_166, Online ISBN 978-3-642-29172-2, 2013. (Citation No: 1)

Kanakidou, M., Tsigaridis, K., **Myriokefalitakis, S.**: *Global modelling of secondary organic aerosol (SOA) formation: Knowledge and Challenges*, in *Simulation and Assessment of Chemical Processes in a Multiphase Environment*, Barnes, I.; Kharytonov, M. M. (Eds.), 2008, XXV, 540 p., ISBN 978-1-4020-8844-5, Series: NATO Science for Peace and Security Series C: Environmental Security, <http://www.springer.com/series/7108>, Springer, 2008. (Citation No: 4)

Lelieveld, J., **Myriokefalitakis, S.**, Karunanandan R.: *Atmospheric Processes: Radiation and Climate, Aerosols, Heterogeneous and Climate*, Notes from the 1st French-German summer school, September 19th – October 1st 2004, Ile d’Oleron, France, editor Geert Mortgat, International Max Planck Research School for Atmospheric Physics and Chemistry, 2004.

• **SELECTED CONFERENCE PROCEEDINGS AND REPORTS (peer-reviewed)**

Myriokefalitakis, S., Daskalakis, N., Tsigaridis, K., Kanakidou M.: *On the importance of aqueous-phase chemistry on the oxidative capacity of the troposphere: A 3-dimensional global modelling study*, COMECAP 2014 e-book of proceedings, 2, 282, ISBN: 978-960-524-430-3, 2014

Daskalakis, N., **Myriokefalitakis, S.**, Kanakidou, M.: *Global Oxidant and Organic Aerosol sensitivity to biomass burning emission inventories*, COMECAP 2014 e-book of proceedings, 1, 226, ISBN: 978-960-524-430-9, 2014.

Kanakidou, M., **Myriokefalitakis, S.**, Daskalakis, N., Tsigaridis K.: *Past and future changes of organic and inorganic nitrogen global atmospheric deposition*, COMECAP 2014 e-book of proceedings, 1, 440, ISBN: 978-960-524-430-9, 2014.

Myriokefalitakis, S., Tsigaridis, K., Mihalopoulos, N., Kanakidou, M.: *Secondary organic aerosol (SOA) formation via cloud processing: A global 3D modelling study*, in the proceedings of the 7th International Conference on Air Quality – Science and Application, 24-27 March 2009, Istanbul, ISBN: 978-1-905313-64-8, published by University of Hertfordshire, 2009.

Kanakidou, M., Dermizaki, E., **Myriokefalitakis, S.**, Sfakianaki, M., Tsigaridis, K., Burrows, J., Ladstätter-Weissenmayer, A., Richter, A., von Hoyningen-Huene W. and Vrekoussis, M.: *Synergistic Use of Satellite Data, Ground Based Observations, Back Trajectory Analysis*

and Global CTM Results for Studies of Tropospheric Trace Gases and Aerosols with focus on the Mediterranean, A contribution to ACCENT-TROPOSAT-2, Task group 2, Final report, 2008.

- **INVITED PRESENTATIONS**

Myriokefalitakis, S.: The importance of multiphase chemistry in the global atmosphere, Seminar at the Department of Environmental Sciences, Rutgers University, US, 7 November, 2014.

Myriokefalitakis, S.: The potential important role of polar organic compounds on the global climate, Seminar at NASA Goddard Institute for Space Studies, NY, US, 21 November, 2014.

Myriokefalitakis, S.: *Glyoxal (CHOCHO) Over Oceans - "Reconciling TM4-ECPL model calculations with TORERO Observations"*, TORERO (Tropical Ocean Troposphere Exchange Of Reactive Halogens And OVOC) Data Workshop, July 23-25 2012, CU Boulder, Colorado

- **SELECTED CONFERENCE PRESENTATIONS**

Myriokefalitakis, S., Daskalakis, N., Mihalopoulos, N., Baker A., Nenes, A., and Kanakidou, M.: *Simulated changes in dissolved Iron deposition to the global ocean driven by human activity*, Geophysical Research Abstracts, Vol. 17, EGU2015-6115, EGU General Assembly 2015. (poster)

Myriokefalitakis, S., Daskalakis, N., and Kanakidou, M.: *Impact of crustal elements on global atmospheric deposition of Nitrogen*, Geophysical Research Abstracts, 16, EGU2014-16702, 2014 EGU General Assembly, 2014. (poster)

Myriokefalitakis, S., and Kanakidou, M.: *A global 3-D modelling study of Iron deposition with focus on the Mediterranean*, ACCENT, Urbino, September, 2013 (poster).

Myriokefalitakis, S., Tsigaridis, K. (speaker), Mihalopoulos, N., Sciare, J., Nenes, A., Segers, A. and Kanakidou, M.: *In-Cloud Oxalate Formation in the Global Troposphere: A 3D Modelling Study*, AGU fall meeting, 13-17 December, San Francisco, USA, 2010. (oral)

Myriokefalitakis, S., Tsigaridis, K., Kouvarakis, G., Mihalopoulos, N., Kanakidou, M.: *Organic Acids in the Troposphere: A Global 3D Study*, Joint IGAC / CACGP / WMO SYMPOSIUM, Cape Town, South Africa, September 2006 (poster).

- **SELECTED CONTINUOUS DEVELOPMENT TRAINING**

19/09/2005 – 01/10/2005 1st French-German summer School at Ile d'Oleron, France, Title: *Aerosols, Heterogeneous Chemistry and Climate* International Max Planck Research School for Atmospheric Chemistry and Physics, Max Planck Institute for Chemistry, Mainz, Germany

11/10/2008 - 18/10/2008 Autumn School: *Climate Change, Cause and Impacts*, Cyprus, Paphos, International Max Planck Research School for Atmospheric Chemistry and Physics, The Cyprus Institute