

CURRICULUM VITAE

Chrysanthi Topaloglou, Laboratory Teaching Staff, Department of Physics

Date of Birth: 01-05-1972

E-mail : chtopal@auth.gr

Studies

2006: PhD from School of Physics, "**Theoretical and experimental study of radial flux changes of ultraviolet solar radiation**", Research Advisor: Alkiviadis Bais, Professor

1999: Master's degree in Environmental Physics

Diploma thesis: "**Organization and control of the operation of a unit for the determination of the spectral response of radiometric instruments in the ultraviolet region**", Supervisor: Alkiviadis Bais, Professor, Department of Physics, Aristotle University of Thessaloniki

1996: Degree from the Department of Physics

Professional Experience

2015 to today: Laboratory Teaching Staff, School of Physics

(Member of the OMEA committee and the Curriculum committee of the School of Physics)

2007-2014 Secretariat of the German Language Department

2013-2014 Head of Secretariat of the Department of German Language and Literature

Participation in Research Programs

2000-2002, ADMIRA Project, 5th Framework Program, ESD

Actinic flux **d**etermination from **m**easurements of **i**rradiance

2002-2005, INSPECTRO Project, 5th Framework Program, ESD

Influence of clouds on the **s**pectral actinic flux in the lower **t**roposphere

Foreign Languages

Cambridge Proficiency in English

Certificate in French Language, Sorbonne University

Certificate B1 (Basic)

Teaching experience

Academic Year 2015-16 to present

Laboratory of Atomic Physics (5th semester), compulsory course, School of Physics, AUTH

Laboratory of Nuclear Physics (6th semester), compulsory course, School of Physics, AUTH

General Laboratory (2nd semester), compulsory course, School of Physics, AUTH

Book Chapters

A.Bais, **C. Topaloglou**, S. Kazadztzis, M. Blumthaler, J. Schreder, A. Schmalwieser, D. Henriques, M. Janouch: Report of the LAP/COST/WMO intercomparison of erythemat radiometers. pages 54;

Bjørn Johnsen, Berit Kjeldstad, Tommy Nakken Aalerud, Lill Tove Nilsen, Josef Schreder, Mario Blumthaler, Germar Bernhard, **Chrysanthi Topaloglou**, Outi Meinander, Asadollah Bagheri, James R. Slusser and John Davis: INTERCOMPARISON of GLOBAL UV INDEX from MULTIBAND FILTER RADIOMETERS: HARMONIZATION of GLOBAL UVI and SPECTRAL IRRADIANCE, GAW Report No. 179, WMO/TD- No 1454

Peer reviewed Journal Publications

Mermigkas, M.; **Topaloglou, C.**; Balis, D.; Koukouli, M.E.; Hase, F.; Dubravica, D.; Borsdorff, T.; Lorente, A. FTIR Measurements of Greenhouse Gases over Thessaloniki, Greece in the Framework of COCCON and Comparison with S5P/TROPOMI Observations. Remote Sens. 2021, 13, 3395. <https://doi.org/10.3390/rs13173395>

Topaloglou C., Bernhard Mayer, S. Kazadztzis, A.F. Bais, M. Blumthaler: Estimation of photolysis frequencies from TOMS satellite measurements and routine meteorological observations. Annales Geophysicae 01/2008; 26 (2008):1965-1975.

C.Topaloglou, S.Kazadztzis, A.F.Bais, M.Blumthaler, B.Schallhart, D.Balis: NO₂ and HCHO photolysis frequencies from irradiance measurements in Thessaloniki, Greece. Atmospheric Chemistry and Physics 06/2005; 5(6):1645-1653.

Bjørn Johnsen, Berit Kjeldstad, Tommy Nakken Aalerud, Lill Tove Nilsen, Josef Schreder, Mario Blumthaler, Germar Bernhard, **Chrysanthi Topaloglou**, Outi Meinander, Asadollah Bagheri, James R. Slusser, John Davis: Intercomparison and harmonization of UV Index measurements from multiband filter radiometers. Journal of Geophysical Research 08/2008; 113(D15):1984-2012.

S. Thiel, L. Ammanato, A. Bais, B. Bandy, M. Blumthaler, B. Bohn, O. Engelsen, G.P. Gobbi, J. Gröbner, E. Jäkel, W. Junkermann, S. Kazadztzis, R. Kift, B. Kjeldstad, N. Kouremeti, A. Kylling, B. Mayer, P. S. Monks, C. E. Reeves, B. Schallhart, R. Scheirer, S. Schmidt, R. Schmitt, J. Schreder, R. Silbernagl, **C. Topaloglou**, T. M. Thorseth, A. R. Webb, M. Wendisch, P. Werle: Influence of

clouds on the spectral actinic flux in the lower troposphere (INSPECTRO): overview of the field campaigns. *Atmospheric Chemistry and Physics* 03/2008; 8(6):1789-1812.

S.Kazadzis, **C.Topaloglou**, A.F.Bais, M.Blumthaler, A.Kazantzidis, D.Balis: Actinic flux and O1D photolysis frequencies retrieved from spectral measurements of irradiance at Thessaloniki, Greece. *Atmospheric Chemistry and Physics* 11/2004; 4(8):2215-2226.

Kylling, A. R. Webb, A. F. Bais, M. Blumthaler, R. Schmitt, S. Thiel, A. Kazantzidis, R. Kift, M. Misslbeck, B. Schallhart, J. Schreder, **C. Topaloglou**, S. Kazadzis, J. Rimmer: Actinic flux determination from measurements of irradiance. *Journal of Geophysical Research-Atmospheres*. 01/2003; 108(D16):4506, doi:10.1029/2002JD003236.

Martin Huber, Mario Blumthaler, Josef Schreder, Alkis Bais, **Chrysanthi Topaloglou**: Effect of ambient temperature on Robertson-Berger-type erythematous dosimeters. *Applied Optics* 08/2002; 41(21):4273-7.

R. Webb, A. F. Bais, M. Blumthaler, G. P. Gobbi, A. Kylling, R. Schmitt, S. Thiel, F. Barnaba, T. Danielsen, W. Junkermann, A. Kazantzidis, P. Kelly, R. Kift, G. L. Liberti, M. Misslbeck, B. Schallhart, J. Schreder, **C. Topaloglou**: Measuring spectral actinic flux and irradiance: Experimental results from the Actinic Flux Determination from Measurements of Irradiance (ADMIRA) project. *Journal of Atmospheric and Oceanic Technology* 01/2002; 19(7):1049-1062.

Publications in Conference Proceedings and conference posters

Panou, T.; **Topaloglou, C.**; Mermigkas, M.; Balis, D.; Dubravica, D.; Hase, F. Analyzing Four Years of Ground-Based Measurements of XCO₂ and XCO over Thessaloniki, Greece Using FTIR Spectroscopy †. *Environ. Sci. Proc.* 2023, 26, 52. <https://doi.org/10.3390/environsciproc2023026052> | **Proceeding Paper**

Mermigkas, M.; **Topaloglou, C.**; Koukouli, M.-E.; Balis, D.; Hase, F.; Dubravica, D.; Borsdorff, T.; Lorente, A. Sentinel-5P/TROPospheric Monitoring Instrument CH₄ and CO Total Column Validation over the Thessaloniki Collaborative Carbon Column Observing Network Site, Greece. *Environ. Sci. Proc.* 2023, 26, 188. <https://doi.org/10.3390/environsciproc2023026188> | **Proceeding Paper**

Koukouli, M.E., Garane, K., Karagkiozidis, D., Gkertsis, F., Michailidis, K., Siomos, N., Voudouri, K.A., Mermigkas, M., Topaloglou, C., Sarakis, C., Balis, D.S., and Bais, A.: S5P/TROPOMI atmospheric products over Thessaloniki, Greece; validation activities of the Laboratory of Atmospheric Physics, AUTH, **Proceedings from the COMECAP 2021 International Conference**, p.997-1001, 2021.

Koukouli M.E., Karagkiozidis D., Michailidis K., Siomos N., Voudouri K. A., Mermigkas M., **Topaloglou C.**, Skoulidou I., et al., Air quality over Thessaloniki Greece revealed by a PANACEA summer and winter observational campaign; an overview, 15th International

Conference on Meteorology, Climatology and Atmospheric Physics, Ioannina, Greece, 26-29 September, 2021.

Mermigkas M., **Topaloglou C.**, Balis D.S., Hase F., Variability of CO₂, CH₄ and CO column averaged mixing ratios from two 2 years of measurements in Thessaloniki, Greece, using a portable EM27/SUN FTIR spectrometer, 15th International Conference on Meteorology, Climatology and Atmospheric Physics, Ioannina, Greece, 26-29 September, 2021.

Marios Mermigkas, **Chrysanthi Topaloglou**, Dimitrios Balis, Maria Elissavet Koukouli, Lena Feld, Darko Dubravica, Frank Hase, Peter Braesicke, TOTAL COLUMN AVERAGED MIXING RATIOS OF CO OVER THESSALONIKI, GREECE, USING A PORTABLE EM27/SUN FTIR SPECTROMETER AND TROPOMI OBSERVATIONS: A FIRE EPISODE CASE STUDY DURING SUMMER 2021, 13th International Conference on Air Quality - Science and Application 27 June - 1 July 2022, Thessaloniki, Greece

Marios Mermigkas, **Chrysanthi Topaloglou**, Dimitrios Balis, Maria Elissavet Koukouli, Frank Hase, Darko Dubravica, Tobias Borsdorff and Alba Lorente, S5P/TROPOMI CH₄ and CO total column average mixing ratio validation over Thessaloniki, Greece using FTIR spectrophotometry, 2022, SENTINEL – 5P Mission:5 years anniversary| 10-14 October Taormina, Italy <https://az659834.vo.msecnd.net/eventsairwesteuprod/production-nikal-public/848b6a13b12b4f78a26f578e95146ee5>

Marios Mermigkas, **Chrysanthi Topaloglou**, Dimitrios Balis, Darko Dubravica, Frank Hase, Long-term variability of XCO₂, XCH₄ and XCO as observed by the Thessaloniki COCCON site - NDACC-IRWG-TCCON-COCCON Annual Meeting 2023, Avenue Léopold II, 40, 4900 Spa, Belgium, 12–16 Jun 2023, Radisson Blu Balmoral Hotel, Spa

Chrysanthi Topaloglou, Marios Mermigkas, Maria-Elissavet Koukouli, Dimitrios Balis, Frank Hase, Jochen Landgraf, and Ilse Aben, Comparison of one year of XCH₄ and XCO measurements using a EM27/SUN low resolution FTIR spectrometer to S5P/TROPOMI methane and carbon monoxide columns at Thessaloniki, Greece, <https://doi.org/10.5194/egusphere-egu2020-15056>, EGU General Assembly 2020

Mermigkas, M., **Topaloglou, C.**, Balis, D. and Hase, F., Variability of CO₂, CH₄ and CO column averaged mixing ratios from one and a half year of measurements in Thessaloniki, Greece, using a portable EM27/SUN FTIR spectrometer Second Scientific Conference PANACEA – Web Conferencing 29 September – 1 October 2020

Topaloglou C., Kazadzis S., Kazantzidis A, Bais A.F: UV spectral measurements of actinic flux and global irradiance in Thessaloniki, EUROTRAC-2 Symposium, Transport and chemical transformation in the troposphere, 11.-15.03.2002, Garmisch-Partenkirchen

Kazadzis S, Kazantzidis A, **Topaloglou C**, Bais A.F UV actinic flux retrieval from global and direct spectral irradiance measurements, EUROTRAC-2 Symposium, Transport and chemical transformation in the troposphere, 11.-15.03.2002, Garmisch-Partenkirchen

Bais A.F., Blumthaler M., Webb A.R., **Topaloglou C.**, Schallhart B., Schreder J., Kazantzidis A., Schmitt R., Thiel S.: Actinic Flux Determination from Measurements of Irradiance (ADMIRA): Results from Experimental and Monitoring Campaign. EUROTRAC-2 Symposium, Transport and chemical transformation in the troposphere, 11.-15.03.2002, Garmisch-Partenkirchen

Kylling A., Webb A.R., Bais A.F., Blumthaler M., Gobbi G-P, Schmitt R., Thiel S., Barnaba F., Junkermann W., Kazantzidis A., Kelly P., Kift R., Lieberti G.L., Misslbeck M., Schallhart B., Schreder J., **Topaloglou C.**: Estimation of the Actinic Flux from Measurements of the Irradiance. EUROTRAC-2 Symposium, Transport and chemical transformation in the troposphere, 11.-15.03.2002, Garmisch-Partenkirchen

Bais A.F., Zerefos C.S., Kosmidis E, Kazantzidis A , Kazadzis S, and **Topaloglou C.**, Establishment of a network for uv monitoring in Greece –Quadrennial Ozone Symposium, Kos Greece, 1 -8 June, 2004

Topaloglou C., Kazadzis S, Bais A.F, Blumthaler M, Schallhart B.: Ozone photolysis rate calculations from measurements of spectral irradiance at Thessaloniki, Greece, Quadrennial Ozone Symposium, Kos Greece, 1 -8 June, 2004

Topaloglou C., Kazadzis S, Bais A.F, Blumthaler M, Schallhart B. : Retrieval of photolysis frequencies of ozone, nitrogen dioxide and formaldehyde from UV irradiance measurements, EGU, General Assembly, Vienna 22-27 April, 2005

A. Kazantzidis, A. Bais, **C. Topaloglou**, K. Garane, M. Zempila, C. Meleti, C. Zerefos: Quality assurance of the Greek UV Network: preliminary results from the pilot phase operation. SPIE, Remote Sensing of Clouds and the Atmosphere XI, Stockholm, September 11-14, 2006

B. Johnsen, B. Kjeldstad, T.N. Aalerud, L.T. Nilsen, J. Schreder, M. Blumthaler, G. Bernhard, A. Bagheri, B. Bhattarai, **C. Topaloglou**, G. Zablocki, O. Meinander, B.A. Høiskar, R. Haugen, W.S. Durham, G. Janson, A.R. Marrero, A. Dahlback, D. Bolsée, J.R. Slusser, J. Stamnes, C. Torres, A.R.D. Smedley, L.-E. Paulsson, K. Lakkala, A.R. Webb, J.B. Ørbæk, A.A. Grimenes, T. Ringstad, T. Lange, W. Josefsson: International intercomparison of multiband filter radiometers in Oslo 2005. SPIE, Remote Sensing of Clouds and the Atmosphere XI, Stockholm, September 11-14, 2006

Bais, A.F., M. Blumthaler, A. R. Webb, **C. Topaloglou**, B. Schallhart, J. Schreder, A. Kazantzidis, R. Schmitt, S. Thiel, Actinic Flux Determination from Measurements of Irradiance (ADMIRA): Results from Experimental and Monitoring Campaign, Sixth European Symposium on Stratospheric Ozone, Göteborg, Sweden, 6-10 October 2002.

Kazadzis, S., A. Kazantzidis, **C. Topaloglou**, A.F. Bais, UV Spectral Measurements of Actinic Flux and Global Irradiance in Thessaloniki, Sixth European Symposium on Stratospheric Ozone, Göteborg, Sweden, 6-10 October 2002.

Kylling, A., A.R. Webb, A.F. Bais, M. Blumthaler, G-P. Gobbi, R. Schmitt, S. Thiel, F. Barnaba, W. Junkermann, A. Kazantzidis, P. Kelly, R. Kift, G.L. Lieberti, M. Misslbeck, B. Schallhart, J. Schreder, **C. Topaloglou**, Estimation of the Actinic Flux from Measurements of the Irradiance,

Sixth European Symposium on Stratospheric Ozone, Göteborg, Sweden, 6-10 October 2002.
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Topaloglou, C., S. Kazadzis, A. Kazantzidis, A.F. Bais, Actinic Flux Retrieval from Global and Direct Measurements: Limitations and Uncertainties, Sixth European Symposium on Stratospheric Ozone, Göteborg, Sweden, 6-10 October 2002.

A.F. Bais, C. S. Zerefos, A. Kazantzidis, E. Kosmidis and **C. Topaloglou**, Installation of stations for monitoring solar UV radiation over Greece and Cyprus in the frame of the GR-UVNET network, 5 th International Exhibition and Conference on Environmental Technology, Athens, February 3-6, 2005.

Quality assurance of the Greek UV Network: preliminary results from the pilot phase operation, A. Kazantzidis, A. F. Bais, C. Topaloglou, K. Garane, M. Zempila, C. Meleti, C.S. Zerefos, Proceedings of SPIE Europe Remote Sensing of Clouds and the Atmosphere XI, vol. 6362, 636229-1 – 636229-10, Stockholm, Sweden, 11-14 September 2006