

# Prof. Alkiviadis F. Bais - Publications

## *Peer reviewed papers*

1. Tirpitz, J. L., U. Frieß, F. Hendrick, C. Alberti, M. Allaart, A. Apituley, A. Bais, S. Beirle, S. Berkhout, K. Bognar, T. Bösch, I. Bruchkouski, A. Cede, K. L. Chan, M. den Hoed, S. Donner, T. Drosoglou, C. Fayt, M. M. Friedrich, A. Frumau, L. Gast, C. Gielen, L. Gomez-Martín, N. Hao, A. Hensen, B. Henzing, C. Hermans, J. Jin, K. Kreher, J. Kuhn, J. Lampel, A. Li, C. Liu, H. Liu, J. Ma, A. Merlaud, E. Peters, G. Pinardi, A. PETERS, U. Platt, O. Puentedura, A. Richter, S. Schmitt, E. Spinei, D. Stein Zweers, K. Strong, D. Swart, F. Tack, M. Tiefengraber, R. van der Hoff, M. van Roozendaal, T. Vlemmix, J. Vonk, T. Wagner, Y. Wang, Z. Wang, M. Wenig, M. Wiegner, F. Wittrock, P. Xie, C. Xing, J. Xu, M. Yela, C. Zhang, and X. Zhao, Intercomparison of MAX-DOAS vertical profile retrieval algorithms: studies on field data from the CINDI-2 campaign, *Atmos. Meas. Tech.*, 14(1), 1-35, 2021.
2. Lakkala, K., J. Kujanpää, C. Brogniez, N. Henriot, A. Arola, M. Aun, F. Auriol, A. F. Bais, G. Bernhard, V. De Bock, M. Catalfamo, C. Deroo, H. Diémoz, L. Egli, J. B. Forestier, I. Fountoulakis, K. Garane, R. D. Garcia, J. Gröbner, S. Hassinen, A. Heikkilä, S. Henderson, G. Hülsen, B. Johnsen, N. Kalakoski, A. Karanikolas, T. Karppinen, K. Lamy, S. F. León-Luis, A. V. Lindfors, J. M. Metzger, F. Minvielle, H. B. Muskatel, T. Portafaix, A. Redondas, R. Sanchez, A. M. Siani, T. Svendby, and J. Tamminen, Validation of the TROPospheric Monitoring Instrument (TROPOMI) surface UV radiation product, *Atmos. Meas. Tech.*, 13(12), 6999-7024, 2020.
3. Pinardi, G., M. Van Roozendaal, F. Hendrick, N. Theys, N. Abuhassan, A. Bais, F. Boersma, A. Cede, J. Chong, S. Donner, T. Drosoglou, A. Dzhola, H. Eskes, U. Frieß, J. Granville, J. R. Herman, R. Holla, J. Hovila, H. Irie, Y. Kanaya, D. Karagkiozidis, N. Kouremeti, J. C. Lambert, J. Ma, E. Peters, A. PETERS, O. Postlyakov, A. Richter, J. Remmers, H. Takashima, M. Tiefengraber, P. Valks, T. Vlemmix, T. Wagner, and F. Wittrock, Validation of tropospheric NO<sub>2</sub> column measurements of GOME-2A and OMI using MAX-DOAS and direct sun network observations, *Atmos. Meas. Tech.*, 13(11), 6141-6174, 2020.
4. Chatzimpaloglou, A., Christophoridis, C., Fountoulakis, I., Antonopoulou, M., Vlastos, D., Bais, A., and Fytianos, K.: Photolytic and photocatalytic degradation of antineoplastic drug irinotecan. Kinetic study, identification of transformation products and toxicity evaluation, *Chem Eng J*, 405, 126866, <https://doi.org/10.1016/j.cej.2020.126866>, 2021.
5. Wang, Y., Apituley, A., Bais, A., Beirle, S., Benavent, N., Borovski, A., Bruchkouski, I., Chan, K. L., Donner, S., Drosoglou, T., Finkenzeller, H., Friedrich, M. M., Frieß, U., Garcia-Nieto, D., Gómez-Martín, L., Hendrick, F., Hilboll, A., Jin, J., Johnston, P., Koenig, T. K., Kreher, K., Kumar, V., Kyuberis, A., Lampel, J., Liu, C., Liu, H., Ma, J., Polyansky, O. L., Postlyakov, O., Querrel, R., Saiz-Lopez, A., Schmitt, S., Tian, X., Tirpitz, J. L., Van Roozendaal, M., Volkamer, R., Wang, Z., Xie, P., Xing, C., Xu, J., Yela, M., Zhang, C., and Wagner, T., Inter-comparison of MAX-DOAS measurements of tropospheric HONO slant column densities and vertical profiles during the CINDI-2 campaign, *Atmos. Meas. Tech.*, 13, 5087-5116, doi: 10.5194/amt-13-5087-2020, 2020.
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8. Bernhard, G. H., R. E. Neale, P. W. Barnes, P. J. Neale, R. G. Zepp, S. R. Wilson, A. L. Andrady, A. F. Bais, R. L. McKenzie, P. J. Aucamp, P. J. Young, J. B. Liley, R. M. Lucas, S. Yazar, L. E. Rhodes, S. N. Byrne, L. M. Hollestein, C. M. Olsen, A. R. Young, T. M. Robson, J. F. Bornman, M. A. K. Jansen, S. A. Robinson, C. L. Ballaré, C. E. Williamson, K. C. Rose, A. T. Banaszak, D. P. Häder, S. Hylander, S. Å. Wängberg, A. T. Austin, W. C. Hou, N. D. Paul, S. Madronich, B. Sulzberger, K. R. Solomon, H. Li, T. Schikowski, J. Longstreth, K. K. Pandey, A. M. Heikkilä, and C. C. White, Environmental effects of stratospheric ozone depletion, UV radiation and interactions with climate change: UNEP Environmental Effects Assessment Panel, update 2019, *Photochem. Photobiol. Sci.*, 19, 542, 2020.
9. Kreher, K., M. Van Roozendaal, F. Hendrick, A. Apituley, E. Dimitropoulou, U. Frieß, A. Richter, T. Wagner, J. Lampel, N. Abuhassan, L. Ang, M. Anguas, A. Bais, N. Benavent, T. Bösch, K. Bognar, A. Borovski, I. Bruchkouski, A. Cede, K. L. Chan, S. Donner, T. Drosoglou, C. Fayt, H. Finkenzeller, D. Garcia-Nieto, C. Gielen, L. Gómez-Martín, N. Hao, B. Henzing, J. R. Herman, C. Hermans, S. Hoque, H. Irie, J. Jin, P. Johnston, J. Khayyam Butt, F. Khokhar, T. K. Koenig, J. Kuhn, V. Kumar, C. Liu, J. Ma, A. Merlaud, A. K. Mishra, M. Müller, M. Navarro-Comas, M. Ostendorf, A. Pazmino, E. Peters, G. Pinardi, M. Pinharanda, A. PETERS, U. Platt, O. Postylyakov, C. Prados-Roman, O. Puertedura, R. Querel, A. Saiz-Lopez, A. Schönhardt, S. F. Schreier, A. Seyler, V. Sinha, E. Spinei, K. Strong, F. Tack, X. Tian, M. Tiefengraber, J. L. Tirpitz, J. van Gent, R. Volkamer, M. Vrekoussis, S. Wang, Z. Wang, M. Wenig, F. Wittrock, P. H. Xie, J. Xu, M. Yela, C. Zhang, and X. Zhao, Intercomparison of NO<sub>2</sub>, O<sub>4</sub>, O<sub>3</sub> and HCHO slant column measurements by MAX-DOAS and zenith-sky UV-visible spectrometers during CINDI-2, *Atmos. Meas. Tech.*, 13(5), 2169-2208, 2020.
10. Karras, S. N., T. Koufakis, V. Antonopoulou, D. G. Goulis, C. Annweiler, S. Pilz, H. Bili, D. P. Naughton, I. Shah, V. Harizopoulou, P. Zebekakis, A. Bais, and K. Kotsa, Characterizing neonatal vitamin D deficiency in the modern era: A maternal-neonatal birth cohort from Southern Europe, *The Journal of Steroid Biochemistry and Molecular Biology*, 198, 105555, 2020.
11. Siomos, N., I. Fountoulakis, A. Natsis, T. Drosoglou, and A. Bais, Automated Aerosol Classification from Spectral UV Measurements Using Machine Learning Clustering, *Remote Sensing*, 12(6), 965, 2020.
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17. Garane, K., M. E. Koukouli, T. Verhoelst, C. Lerot, K. P. Heue, V. Fioletov, D. Balis, A. Bais, A. Bazureau, A. Dehn, F. Goutail, J. Granville, D. Griffin, D. Hubert, A. Keppens, J. C. Lambert, D. Loyola, C. McLinden, A. Pazmino, J. P. Pommereau, A. Redondas, F. Romahn, P. Valks, M. Van Roozendael, J. Xu, C. Zehner, C. Zerefos, and W. Zimmer, TROPOMI/S5P total ozone column data: global ground-based validation and consistency with other satellite missions, *Atmos. Meas. Tech.*, 12(10), 5263-5287, 2019.
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### **Conference presentations (posters)**

1. Drosoglou, T., N. Siomos, K. A. Voudouri, F. Hendrick, D. Balis, A. F. Bais, and M. V. Roozendael, Synergy of lidar and MAX-DOAS observations for the improvement of aerosol extinction profile retrievals from O<sub>4</sub> absorption, in European Lidar Conference, edited, Thessaloniki, Greece, 3-5 July 2018.
2. Drosoglou, T., N. Siomos, I. Fountoulakis, A. Natsis, and A. F. Bais, MAX-DOAS aerosol retrievals with the aid of co-located lidar profiles and comparisons with aerosol optical depth from Brewer spectrophotometer and CIMEL sun photometer, in 20th EGU General Assembly 2018, EGU, Vienna, Austria, 4-13 April, 2018.

3. Fragkos, K., I. Petropavlovskikh, M. Dotsas, A. Bais, M. Taylor, D. Hurtmans, I. Fountoulakis, M. E. Koukouli, D. Balis, and M. Stanek, Umkehr ozone profiles over Thessaloniki and comparison with satellite overpasses, in 20th EGU General Assembly 2018, EGU, Vienna, Austria, 4-13 April, 2018.
4. Garane, K., T. Drosoglou, M. Zempila, N. Siomos, F. Gkertsis, I. Fountoulakis, M. E. Koukouli, D. Balis, and A. Bais, The potential for a multi-instrument validation of TROPOMI products at Thessaloniki, Greece, in Second Sentinel-5 Validation Team Meeting and First Results Workshop, ESA/ESTEC, The Netherlands, 6-8 February 2018.
5. Gaia Pinardi, François Hendrick, Clio Gielen, Michel Van Roozendael, Isabelle De Smedt, Jean-Christopher Lambert, José Granville, Steven Compernelle, Andreas Richter, Enno Peters, Ankie Piters, Thomas Wagner, Yang Wang, Theano Drosoglou, Alkis Bais, Shanshan Wang, and Alfonso Saiz-Lopez, On the use of harmonized HCHO and NO<sub>2</sub> MAXDOAS measurements for the validation of GOME-2 and OMI satellite sensors, in EGU General Assembly 2017, Vienna, Austria, 23-28 April 2017.
6. Roozendael, M. V., C. Fayt, F. Hendrick, G. Pinardi, T. Drosoglou, A. Bais, F. Wu, A. Li, P. Xie, U. Friess, A. Richter, T. Boesch, S. Schreier, J. Jin, H. Irie, N. Benavent, D. Garcia-Nieto, A. Saiz-Lopez, T. Koenig, H. Finkenzeller, R. Volkamer, N. Hao, V. Kumar, C. Prados, O. Puentedura, A. Piters, A. Cede, M. Tiefengrabe, T. Wagner, S. Donner, E. Spinei, P. Johnston, R. Querel, F. Khokhar, J. Khayam, M. Wenig, K. L. Chan, K. Bognar, K. Strong, A. Borovski, O. Postlyakov, A. Pazmino, M. Pinaranda, I. Bruchkouski, and K. Kreher, Central reprocessing of CINDI-2 MAX-DOAS NO<sub>2</sub>, O<sub>4</sub>, HCHO and O<sub>3</sub> slant column data, in 8th International DOAS Workshop, Yokohama, Japan, 4 to 6 September 2017.
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