

# List of Rolf Sander's Publications

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ORCID: 0000-0001-6479-2092

— 2018 —

98. Sander, R., Baumgaertner, A., Cabrera-Perez, D., Frank, F., Groß, J.-U., Gromov, S., Harder, H., Huijnen, V., Jöckel, P., Karydis, V. A., Niemeyer, K., Pozzer, A., Riede, H., Schultz, M., Taraborrelli, D., & Tauer, S.: *The atmospheric chemistry box model CAABA/MECCA-4.0gmd*, Geosci. Model Dev. Discuss., doi:10.5194/gmd-2018-201 (2018)
97. Nikolaou, Z. M., Chen, J.-Y., Proestos, Y., Lelieveld, J., & Sander, R.: *Accelerating simulations using REDCHEM\_v0.0 for atmospheric chemistry mechanism reduction*, Geosci. Model Dev., 11, 3391–3407, doi:10.5194/gmd-11-3391-2018 (2018)
96. Mallik, C., Tomsche, L., Bourtsoukidis, E., Crowley, J. N., Derstroff, B., Fischer, H., Hafermann, S., Hüser, I., Javed, U., Keßel, S., Lelieveld, J., Martinez, M., Meusel, H., Novelli, A., Phillips, G. J., Pozzer, A., Reiffs, A., Sander, R., Taraborrelli, D., Sauvage, C., Schuladen, J., Su, H., Williams, J., & Harder, H.: *Oxidation processes in the eastern Mediterranean atmosphere: evidence from the modelling of HO<sub>x</sub> measurements over Cyprus*, Atmos. Chem. Phys., 18, 10825–10847, doi:10.5194/acp-18-10825-2018 (2018)

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95. Derstroff, B., Hüser, I., Bourtsoukidis, E., Crowley, J. N., Fischer, H., Gromov, S., Harder, H., Janssen, R. H. H., Kesselmeier, J., Lelieveld, J., Mallik, C., Martinez, M., Novelli, A., Parchatka, U., Phillips, G. J., Sander, R., Sauvage, C., Schuladen, J., Stöner, C., Tomsche, L., & Williams, J.: *Volatile organic compounds (VOCs) in photochemically aged air from the eastern and western Mediterranean*, Atmos. Chem. Phys., 17, 9547–9566, doi:10.5194/acp-17-9547-2017 (2017)
94. Keßel, S., Cabrera-Perez, D., Horowitz, A., Veres, P. R., Sander, R., Taraborrelli, D., Tucceri, M., Crowley, J. N., Pozzer, A., Stöner, C., Vereecken, L., Lelieveld, J., & Williams, J.: *Atmospheric chemistry, sources, and sinks of carbon suboxide, C<sub>3</sub>O<sub>2</sub>*, Atmos. Chem. Phys., 17, 8789–8804, doi:10.5194/acp-17-8789-2017 (2017)

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93. Cabrera-Perez, D., Taraborrelli, D., Sander, R., & Pozzer, A.: *Global atmospheric budget of simple monocyclic aromatic compounds*, Atmos. Chem. Phys., 16, 6931–6947, doi:10.5194/acp-16-6931-2016 (2016)
92. Sukhodolov, T., Rozanov, E., Ball, W., Bais, A., Tourpali, K., Shapiro, A., Telford, P., Smyshlyaev, S., Fomin, B., Sander, R., Bossay, S., Chipperfield, M., Dhomse, S., Haigh, J., Peter, T., & Schmutz, W.: *Evaluation of simulated photolysis rates and their response to solar irradiance variability*, J. Geophys. Res. Atmos., 121, doi:10.1002/2015JD024277 (2016)
91. Jöckel, P., Tost, H., Pozzer, A., Kunze, M., Kirner, O., Brenninkmeijer, C. A. M., Brinkop, S., Cai, D. S., Dyroff, C., Eckstein, J., Frank, F., Garny, H., Gottschaldt, K.-D., Graf, P., Grewe, V., Kerkweg, A., Kern, B., Matthes, S., Mertens, M., Meul, S., Neumaier, M., Nützel, M., Oberländer-Hayn, S., Ruhnke, R., Runde, T., Sander, R., Scharffe, D., & Zahn, A.: *Earth System Chemistry integrated Modelling (ESCiMo) with the Modular Earth Submodel System (MESSy, version 2.51)*, Geosci. Model Dev., 9, 1153–1200, doi:10.5194/gmd-9-1153-2016 (2016)
90. Baumgaertner, A. J. G., Jöckel, P., Kerkweg, A., Sander, R., & Tost, H.: *Implementation of the Community Earth System Model (CESM1, version 1.2.1) as a new base model into version 2.50 of the MESSy framework*, Geosci. Model Dev., 9, 125–135, doi:10.5194/gmd-9-125-2016 (2016)

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89. Sander, R.: *Compilation of Henry's law constants (version 4.0) for water as solvent*, Atmos. Chem. Phys., 15, 4399–4981, doi:10.5194/acp-15-4399-2015 (2015)
88. Jordan, C. E., Pszenny, A. A. P., Keene, W. C., Cooper, O. R., Deegan, B., Maben, J., Routhier, M., Sander, R., & Young, A. H.: *Origins of aerosol chlorine during winter over north central Colorado, USA*, J. Geophys. Res. Atmos., 120, 678–694, doi:10.1002/2014JD022294 (2015)

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87. Sander, R., Jöckel, P., Kirner, O., Kunert, A. T., Landgraf, J., & Pozzer, A.: *The photolysis module JVAL-14, compatible with the MESSy standard, and the JVal PreProcessor (JVPP)*, Geosci. Model Dev., 7, 2653–2662, doi:10.5194/GMD-7-2653-2014 (2014)
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85. Long, M. S., Keene, W. C., Easter, R. C., Sander, R., Liu, X., Kerkweg, A., & Erickson, D.: *Sensitivity of tropospheric chemical composition to halogen-radical chemistry using a fully coupled size-resolved multiphase chemistry-global climate system: halogen distributions, aerosol composition, and sensitivity of climate-relevant gases.*, Atmos. Chem. Phys., 14, 3397–3425, doi:10.5194/ACP-14-3397-2014 (2014)
84. Adame, J. A., Martínez, M., Sorribas, M., Hidalgo, P. J., Harder, H., Diesch, J.-M., Drewnick, F., Song, W., Williams, J., Sinha, V., Hernández-Ceballos, M. A., Vilà-Guerau de Arellano, J., Sander, R., Hosaynali-Beygi, Z., Fischer, H., Lelieveld, J., & De la Morena, B.: *Meteorology during the DOMINO campaign and its connection with trace gases and aerosols*, Atmos. Chem. Phys., 14, 2325–2342, doi:10.5194/ACP-14-2325-2014 (2014)

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82. Keller-Rudek, H., Moortgat, G. K., Sander, R., & Sörensen, R.: *The MPI-Mainz UV/VIS spectral atlas of gaseous molecules of atmospheric interest*, Earth Syst. Sci. Data, 5, 365–373, doi:10.5194/ESSD-5-365-2013 (2013)
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79. Young, A. H., Keene, W. C., Pszenny, A. A. P., Sander, R., Thornton, J. A., Riedel, T. P., & Maben, J. R.: *Phase partitioning of soluble trace gases with size-resolved aerosols in near-surface continental air over northern Colorado, USA, during winter*, J. Geophys. Res., 118, 9414–9427, doi:10.1002/jgrd.50655 (2013)
78. Long, M. S., Keene, W. C., Easter, R., Sander, R., Kerkweg, A., Erickson, D., Liu, X., & Ghan, S.: *Implementation of the chemistry module MECCA (v2.5) in the modal aerosol version of the Community Atmosphere Model component (v3.6.33) of the Community Earth System Model*, Geosci. Model Dev., 6, 255–262, doi:10.5194/GMD-6-255-2013 (2013)

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76. Sihler, H., Platt, U., Beirle, S., Marbach, T., Kühl, S., Dörner, S., Verschaeve, J., Frieß, U., Pöhler, D., Vogel, L., Sander, R., & Wagner, T.: *Tropospheric BrO column densities in the Arctic derived from satellite: retrieval and comparison to ground-based measurements*, Atmos. Meas. Tech., 5, 2779–2807, doi:10.5194/AMT-5-2779-2012 (2012)
75. van Stratum, B. J. H., Vilà-Guerau deArellano, J., Ouwensloot, H. G., van den Dries, K., van Laar, T. W., Martinez, M., Lelieveld, J., Diesch, J.-M., Drewnick, F., Fischer, H., Hosaynali Beygi, Z., Harder, H., Regelin, E., Sinha, V., Adame, J. A., Sörgel, M., Sander, R., Bozem, H., Song, W., Williams, J., & Yassaa, N.: *Case study of the diurnal variability of chemically active species with respect to boundary layer dynamics during DOMINO*, Atmos. Chem. Phys., 12, 5329–5341, doi:10.5194/ACP-12-5329-2012 (2012)
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69. Lawler, M. J., Sander, R., Carpenter, L. J., Lee, J. D., von Glasow, R., Sommariva, R., & Saltzman, E. S.: *HOCl and Cl<sub>2</sub> observations in marine air*, Atmos. Chem. Phys., 11, 7617–7628, doi:10.5194/ACP-11-7617-2011 (2011)
68. Klippel, T., Fischer, H., Bozem, H., Lawrence, M. G., Butler, T., Jöckel, P., Tost, H., Martinez, M., Harder, H., Regelin, E., Sander, R., Schiller, C. L., Stickler, A., & Lelieveld, J.: *Distribution of hydrogen peroxide and formaldehyde over Central Europe during the HOOVER project*, Atmos. Chem. Phys., 11, 4391–4410, doi:10.5194/ACP-11-4391-2011 (2011)
67. Sander, R., Baumgaertner, A., Gromov, S., Harder, H., Jöckel, P., Kerkweg, A., Kubistin, D., Regelin, E., Riede, H., Sandu, A., Taraborrelli, D., Tost, H., & Xie, Z.-Q.: *The atmospheric chemistry box model CAABA/MECCA-3.0*, Geosci. Model Dev., 4, 373–380, doi:10.5194/GMD-4-373-2011 (2011)
66. Morin, S., Sander, R., & Savarino, J.: *Simulation of the diurnal variations of the oxygen isotope anomaly ( $\Delta^{17}\text{O}$ ) of reactive atmospheric species*, Atmos. Chem. Phys., 11, 3653–3671, doi:10.5194/ACP-11-3653-2011 (2011)

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63. Williams, J., Custer, T., Riede, H., Sander, R., Jöckel, P., Hoor, P., Pozzer, A., Wong-Zehnpfennig, S., Hosaynali Beygi, Z., Fischer, H., Gros, V., Colomb, A., Bonsang, B., Yassaa, N., Peeken, I., Atlas, E. L., Waluda, C. M., van Aardenne, J. A., & Lelieveld, J.: *Assessing the effect of marine isoprene and ship emissions on ozone, using modelling and measurements from the South Atlantic Ocean*, *Environ. Chem.*, 7, 171–182, doi:10.1071/EN09154 (2010)
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