Sigrun Matthes

List of Publications by Year
in descending order

29	1,025	567281 15	501196 28
papers	citations	h-index	g-index

42	42	42	1017
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Climate assessment of single flights: Deduction of route specific equivalent CO₂ emissions. International Journal of Sustainable Transportation, 2023, 17, 29-40.	4.1	8
2	Review: The Effects of Supersonic Aviation on Ozone and Climate. Aerospace, 2022, 9, 41.	2.2	7
3	A Comprehensive Survey on Climate Optimal Aircraft Trajectory Planning. Aerospace, 2022, 9, 146.	2.2	19
4	Case Study for Testing the Validity of NOx-Ozone Algorithmic Climate Change Functions for Optimising Flight Trajectories. Aerospace, 2022, 9, 231.	2.2	4
5	Analysis of Aircraft Routing Strategies for North Atlantic Flights by Using AirTraf 2.0. Aerospace, 2021, 8, 33.	2.2	7
6	Mitigation of Non-CO2 Aviationâ€™s Climate Impact by Changing Cruise Altitudes. Aerospace, 2021, 8, 36.	2.2	18
7	Climate Impact Mitigation Potential of European Air Traffic in a Weather Situation with Strong Contrail Formation. Aerospace, 2021, 8, 50.	2.2	12
8	COVID-19 induced lower-tropospheric ozone changes. Environmental Research Letters, 2021, 16, 064005.	5.2	15
9	Evaluating the climate impact of aviation emission scenarios towards the Paris agreement including COVID-19 effects. Nature Communications, 2021, 12, 3841.	12.8	116
10	Influence of weather situation on non-CO₂ aviation climate effects: the REACT4C climate change functions. Atmospheric Chemistry and Physics, 2021, 21, 9151-9172.	4.9	14
11	Climate Impact Mitigation Potential of Formation Flight. Aerospace, 2021, 8, 14.	2.2	6
12	How Well Can Persistent Contrails Be Predicted?. Aerospace, 2020, 7, 169.	2.2	31
13	Assessing the Climate Impact of Formation Flights. Aerospace, 2020, 7, 172.	2.2	7
14	Climate-Optimized Trajectories and Robust Mitigation Potential: Flying ATM4E. Aerospace, 2020, 7, 156.	2.2	28
15	Newly developed aircraft routing options for air traffic simulation in the chemistryâ€“climate model EMAC 2.53: AirTraf 2.0. Geoscientific Model Development, 2020, 13, 4869-4890.	3.6	17
16	The contribution of aviation NO_x emissions to climate change: are we ignoring methodological flaws?. Environmental Research Letters, 2019, 14, 121003.	5.2	25
17	Feasibility of climate-optimized air traffic routing for trans-Atlantic flights. Environmental Research Letters, 2017, 12, 034003.	5.2	39
18	Optimization without limits â€” The world wide air traffic management project. , 2017, , .		5

#	Article	IF	Citations
19	Mitigating the Climate Impact from Aviation: Achievements and Results of the DLR WeCare Project. Aerospace, 2017, 4, 34.	2.2	59
20	A Concept for Multi-Criteria Environmental Assessment of Aircraft Trajectories. Aerospace, 2017, 4, 42.	2.2	30
21	The novel HALO mini-DOAS instrument: inferring trace gas concentrations from airborne UV/visible limb spectroscopy under all skies using the scaling method. Atmospheric Measurement Techniques, 2017, 10, 4209-4234.	3.1	13
22	Earth System Chemistry integrated Modelling (ESCiMo) with the Modular Earth Submodel System (MESSy) versionÂ2.51. Geoscientific Model Development, 2016, 9, 1153-1200.	3.6	208
23	Aircraft routing with minimal climate impact: the REACT4C climate cost function modelling approach (V1.0). Geoscientific Model Development, 2014, 7, 175-201.	3.6	51
24	Aircraft emission mitigation by changing route altitude: A multi-model estimate of aircraft NOx emission impact on O3 photochemistry. Atmospheric Environment, 2014, 95, 468-479.	4.1	46
25	Reduction of the air traffic's contribution to climate change: A REACT4C case study. Atmospheric Environment, 2014, 94, 616-625.	4.1	40
26	Attributing ozone to NOx emissions: Implications for climate mitigation measures. Atmospheric Environment, 2012, 59, 102-107.	4.1	74
27	Climate Optimized Air Transport. Research Topics in Aerospace, 2012, , 727-746.	0.7	15
28	Quantifying the contributions of individual NOx sources to the trend in ozone radiative forcing. Atmospheric Environment, 2011, 45, 2860-2868.	4.1	63
29	Global impact of road traffic emissions on tropospheric ozone. Atmospheric Chemistry and Physics, 2007, 7, 1707-1718.	4.9	42