Oliver R Inderwildi

List of Publications by Year
in descending order

43	3,277	218677	265206
papers	citations	26 h-index	42 g-index

47	47	47	4555
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Liquid fuels, hydrogen and chemicals from lignin: A critical review. Renewable and Sustainable Energy Reviews, 2013, 21, 506-523.	16.4	880
2	The status of conventional world oil reservesâ€"Hype or cause for concern?. Energy Policy, 2010, 38, 4743-4749.	8.8	314
3	Fischerâ€"Tropsch Mechanism Revisited:â€‰Alternative Pathways for the Production of Higher Hydrocarbons from Synthesis Gas. Journal of Physical Chemistry C, 2008, 112, 1305-1307.	3.1	250
4	Life cycle energy and greenhouse gas analysis for algae-derived biodiesel. Energy and Environmental Science, 2011, 4, 3773.	30.8	141
5	Quo vadis biofuels?. Energy and Environmental Science, 2009, 2, 343.	30.8	123
6	Electronic and optical properties of aluminium-doped anatase and rutile<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>TiO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msu initio</i>calculations. Physical Review B, 2010, 81, .	3.2	121
7	Mechanistic Studies of Hydrocarbon Combustion and Synthesis on Noble Metals. Angewandte Chemie - International Edition, 2008, 47, 5253-5255.	13.8	108
8	The impact of intelligent cyber-physical systems on the decarbonization of energy. Energy and Environmental Science, 2020, 13, 744-771.	30.8	104
9	The carbon curse: Are fuel rich countries doomed to high CO2 intensities?. Energy Policy, 2013, 62, 1356-1365.	8.8	92
10	The carbon footprint and non-renewable energy demand of algae-derived biodiesel. Applied Energy, 2014, 113, 1632-1644.	10.1	83
11	Life cycle energy and greenhouse gas analysis for agave-derived bioethanol. Energy and Environmental Science, 2011, 4, 3110.	30.8	81
12	Biofuels and synthetic fuels in the US and China: A review of Well-to-Wheel energy use and greenhouse gas emissions with the impact of land-use change. Energy and Environmental Science, 2010, 3, 190-197.	30.8	72
13	Toward a Comprehensive Model of the Synthesis of TiO₂ Particles from TiCl₄. Industrial & Engineering Chemistry Research, 2007, 46, 6147-6156.	3.7	70
14	Competitive Adsorption of NO, NO2, CO2, and H2O on BaO(100):Â A Quantum Chemical Study. Journal of Physical Chemistry B, 2006, 110, 17484-17492.	2.6	63
15	The simultaneous reduction of nitric oxide and soot in emissions from diesel engines. Carbon, 2009, 47, 866-875.	10.3	61
16	Macroeconomic impacts of oil price volatility: mitigation and resilience. Frontiers in Energy, 2014, 8, 9-24.	2.3	61
17	Indirect emissions from electric vehicles: emissions from electricity generation. Energy and Environmental Science, 2010, 3, 1825.	30.8	58
18	Coverage dependence of oxygen decomposition and surface diffusion on rhodium (111): A DFT study. Journal of Chemical Physics, 2005, 122, 034710.	3.0	56

#	Article	IF	Citations
19	An Unexpected Pathway for the Catalytic Oxidation of Methylidyne on Rh{111} as a Route to Syngas. Journal of the American Chemical Society, 2007, 129, 1751-1759.	13.7	56
20	When adding an unreactive metal enhances catalytic activity: NOx decomposition over silverâ€“rhodium bimetallic surfaces. Surface Science, 2007, 601, L103-L108.	1.9	55
21	In-silico investigations in heterogeneous catalysisâ€”combustion and synthesis of small alkanes. Chemical Society Reviews, 2008, 37, 2274.	38.1	52
22	Effects of Ethanol on Vehicle Energy Efficiency and Implications on Ethanol Life-Cycle Greenhouse Gas Analysis. Environmental Science & Technology, 2013, 47, 5535-5544.	10.0	41
23	Global and local impacts of UK renewable energy policy. Energy and Environmental Science, 2013, 6, 18-24.	30.8	31
24	Influence of initial oxygen coverage and magnetic moment on the NO decomposition on rhodium (111). Journal of Chemical Physics, 2005, 122, 154702.	3.0	29
25	Simulation and life cycle assessment of algae gasification process in dual fluidized bed gasifiers. Green Chemistry, 2015, 17, 1793-1801.	9.0	29
26	Adsorption, Diffusion and Desorption of Chlorine on and from Rutile TiO2{110}: A Theoretical Investigation. ChemPhysChem, 2007, 8, 444-451.	2.1	28
27	Production of Biorenewable Hydrogen and Syngas via Algae Gasification: A Sensitivity Analysis. Energy Procedia, 2014, 61, 2767-2770.	1.8	26
28	Dynamic Interplay between Diffusion and Reaction:â€‰ Nitrogen Recombination on Rh{211} in Car Exhaust Catalysis. Journal of the American Chemical Society, 2008, 130, 2213-2220.	13.7	24
29	Fischer-Tropsch synthesis of liquid fuels: learning lessons from homogeneous catalysis. Physical Chemistry Chemical Physics, 2009, 11, 11110.	2.8	24
30	Theoretical insights into the surface growth of rutile TiO2. Combustion and Flame, 2011, 158, 1868-1876.	5.2	22
31	Linear relationship between activation energies and reaction energies for coverage-dependent dissociation reactions on rhodium surfaces. Physical Chemistry Chemical Physics, 2005, 7, 2552.	2.8	21
32	Synergetic Effects of the Cu/Pt{110} Surface Alloy:â€‰ Enhanced Reactivity of Water and Carbon Monoxide. Journal of Physical Chemistry C, 2008, 112, 6422-6429.	3.1	20
33	Unraveling the Fischerâ€“Tropsch mechanism: a combined DFT and microkinetic investigation of Câ€“C bond formation on Ru. Physical Chemistry Chemical Physics, 2012, 14, 7028.	2.8	20
34	The Catalyst Selectivity Index (CSI): A Framework and Metric to Assess the Impact of Catalyst Efficiency Enhancements upon Energy and CO2 Footprints. Topics in Catalysis, 2015, 58, 682-695.	2.8	18
35	Influence of Coadsorbates on the NO Dissociation on a Rhodium(311) Surface. ChemPhysChem, 2005, 6, 2513-2521.	2.1	15
36	The license to mine: Making resource wealth work for those who need it most. Resources Policy, 2021, 74, 101418.	9.6	8

#	Article	IF	Citations
37	The World Avatarâ€"A World Model for Facilitating Interoperability. Lecture Notes in Energy, 2022, , 39-53.	0.3	7
38	Oxidation of Hydrocarbons at Surface Defects: Unprecedented Confirmation of the Oxomethylidyne Pathway on a Stepped Rh Surface. Journal of Physical Chemistry C, 2008, 112, 8751-8753.	3.1	4
39	The feedstock curve: novel fuel resources, environmental conservation, the force of economics and the renewed eastâ€"west power struggle. Applied Petrochemical Research, 2014, 4, 157-165.	1.3	4
40	Energy shift: decline of easy oil and restructuring of geo-politics. Frontiers in Energy, 2016, 10, 260-267.	2.3	2
41	Cyber-Physical Systems inÂDecarbonisation. Lecture Notes in Energy, 2022, , 17-28.	0.3	2
42	Enhanced Procurement and Production Strategies for Chemical Plants: Utilizing Real-Time Financial Data and Advanced Algorithms. Industrial & Engineering Chemistry Research, 2019, 58, 3072-3081.	3.7	1
43	Response to Comment on â€œEffects of Ethanol on Vehicle Energy Efficiency and Implications on Ethanol Life-Cycle Greenhouse Gas Analysisâ€• Environmental Science & Technology, 2014, 48, 9953-9954.	10.0	0