

Derek R Vardon

List of Publications by Year in descending order

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41
papers

5,210
citations

236925

25
h-index

289244

40
g-index

48
all docs

48
docs citations

48
times ranked

5377
citing authors

#	ARTICLE	IF	CITATIONS
1	Realizing "net-zero-carbon" sustainable aviation fuel. <i>Joule</i> , 2022, 6, 16-21.	24.0	24
2	Supercritical Methanol Solvolysis and Catalysis for the Conversion of Delignified Woody Biomass into Light Alcohol Gasoline Bioblendstock. <i>Advanced Sustainable Systems</i> , 2022, 6, .	5.3	2
3	Toward low-cost biological and hybrid biological/catalytic conversion of cellulosic biomass to fuels. <i>Energy and Environmental Science</i> , 2022, 15, 938-990.	30.8	93
4	Kinetics and Reactor Design Principles of Volatile Fatty Acid Ketonization for Sustainable Aviation Fuel Production. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 2997-3010.	3.7	5
5	Vapor-phase conversion of aqueous 3-hydroxybutyric acid and crotonic acid to propylene over solid acid catalysts. <i>Catalysis Science and Technology</i> , 2021, 11, 6866-6876.	4.1	2
6	Toward net-zero sustainable aviation fuel with wet waste-derived volatile fatty acids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	63
7	Atomic Layer Deposition with TiO ₂ for Enhanced Reactivity and Stability of Aromatic Hydrogenation Catalysts. <i>ACS Catalysis</i> , 2021, 11, 8538-8549.	11.2	24
8	Catalytic activity and water stability of the MgO(111) surface for 2-pentanone condensation. <i>Applied Catalysis B: Environmental</i> , 2021, 294, 120234.	20.2	9
9	Metabolic engineering of <i>Pseudomonas putida</i> for increased polyhydroxyalkanoate production from lignin. <i>Microbial Biotechnology</i> , 2020, 13, 290-298.	4.2	120
10	Single-phase catalysis for reductive etherification of diesel bioblendstocks. <i>Green Chemistry</i> , 2020, 22, 4463-4472.	9.0	14
11	Inverse Bimetallic RuSn Catalyst for Selective Carboxylic Acid Reduction. <i>ACS Catalysis</i> , 2019, 9, 11350-11359.	11.2	15
12	Hierarchically Structured CeO ₂ Catalyst Particles From Nanocellulose/Alginate Templates for Upgrading of Fast Pyrolysis Vapors. <i>Frontiers in Chemistry</i> , 2019, 7, 730.	3.6	10
13	Tailoring diesel bioblendstock from integrated catalytic upgrading of carboxylic acids: a "fuel property first" approach. <i>Green Chemistry</i> , 2019, 21, 5813-5827.	9.0	25
14	Enhanced Catalyst Durability for Bio-Based Adipic Acid Production by Atomic Layer Deposition. <i>Joule</i> , 2019, 3, 2219-2240.	24.0	12
15	Innovative Chemicals and Materials from Bacterial Aromatic Catabolic Pathways. <i>Joule</i> , 2019, 3, 1523-1537.	24.0	142
16	Performance-advantaged ether diesel bioblendstock production by a priori design. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 26421-26430.	7.1	39
17	Thermochemical wastewater valorization via enhanced microbial toxicity tolerance. <i>Energy and Environmental Science</i> , 2018, 11, 1625-1638.	30.8	77
18	Iodine-Catalyzed Isomerization of Dimethyl Muconate. <i>ChemSusChem</i> , 2018, 11, 1768-1780.	6.8	18

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19	Life cycle assessment of adipic acid production from lignin. <i>Green Chemistry</i> , 2018, 20, 3857-3866.	9.0	116
20	Heterogeneous Diels-Alder catalysis for biomass-derived aromatic compounds. <i>Green Chemistry</i> , 2017, 19, 3468-3492.	9.0	201
21	Biomass-derived monomers for performance-differentiated fiber reinforced polymer composites. <i>Green Chemistry</i> , 2017, 19, 2812-2825.	9.0	50
22	Ru-Sn/AC for the Aqueous-Phase Reduction of Succinic Acid to 1,4-Butanediol under Continuous Process Conditions. <i>ACS Catalysis</i> , 2017, 7, 6207-6219.	11.2	44
23	Renewable acrylonitrile production. <i>Science</i> , 2017, 358, 1307-1310.	12.6	122
24	The Techno-Economic Basis for Coproduct Manufacturing To Enable Hydrocarbon Fuel Production from Lignocellulosic Biomass. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 3196-3211.	6.7	121
25	Renewable Unsaturated Polyesters from Muconic Acid. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 6867-6876.	6.7	90
26	Valorization of Waste Lipids through Hydrothermal Catalytic Conversion to Liquid Hydrocarbon Fuels with in Situ Hydrogen Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 1775-1784.	6.7	39
27	cis,cis-Muconic acid: separation and catalysis to bio-adipic acid for nylon-6,6 polymerization. <i>Green Chemistry</i> , 2016, 18, 3397-3413.	9.0	147
28	Opportunities and challenges in biological lignin valorization. <i>Current Opinion in Biotechnology</i> , 2016, 42, 40-53.	6.6	517
29	Prediction of microalgae hydrothermal liquefaction products from feedstock biochemical composition. <i>Green Chemistry</i> , 2015, 17, 3584-3599.	9.0	158
30	Towards lignin consolidated bioprocessing: simultaneous lignin depolymerization and product generation by bacteria. <i>Green Chemistry</i> , 2015, 17, 4951-4967.	9.0	298
31	Adipic acid production from lignin. <i>Energy and Environmental Science</i> , 2015, 8, 617-628.	30.8	499
32	Chapter 5. Catalysis's Role in Bioproducts Update. <i>RSC Green Chemistry</i> , 2015, , 71-91.	0.1	0
33	Lignin valorization through integrated biological funneling and chemical catalysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 12013-12018.	7.1	652
34	Hydrothermal catalytic processing of saturated and unsaturated fatty acids to hydrocarbons with glycerol for in situ hydrogen production. <i>Green Chemistry</i> , 2014, 16, 1507.	9.0	98
35	Complete Utilization of Spent Coffee Grounds To Produce Biodiesel, Bio-Oil, and Biochar. <i>ACS Sustainable Chemistry and Engineering</i> , 2013, 1, 1286-1294.	6.7	246
36	Thermochemical conversion of raw and defatted algal biomass via hydrothermal liquefaction and slow pyrolysis. <i>Bioresource Technology</i> , 2012, 109, 178-187.	9.6	377

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37	Chemical properties of biocrude oil from the hydrothermal liquefaction of Spirulina algae, swine manure, and digested anaerobic sludge. <i>Bioresource Technology</i> , 2011, 102, 8295-8303.	9.6	534
38	The potential of laser scanning cytometry for early warning of algal blooms in desalination plant feedwater. <i>Desalination</i> , 2011, 277, 193-200.	8.2	5
39	Effects of shear on microfiltration and ultrafiltration fouling by marine bloom-forming algae. <i>Journal of Membrane Science</i> , 2010, 356, 33-43.	8.2	101
40	Screening of Potential Biomass-Derived Streams as Fuel Blendstocks for Mixing Controlled Compression Ignition Combustion. <i>SAE International Journal of Advances and Current Practices in Mobility</i> , 0, 1, 1117-1138.	2.0	33
41	MgO(111) Nanocatalyst for Biomass Conversion: A Study of Carbon Coating Effects on Catalyst Faceting and Performance. <i>Catalysis Letters</i> , 0, , 1.	2.6	1