Derek R Vardon

List of Publications by Year
in descending order

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41	5,210	236925	289244
papers	citations	25 h-index	40 g-index

48	48	48	5377
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lignin valorization through integrated biological funneling and chemical catalysis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12013-12018.	7.1	652
2	Chemical properties of biocrude oil from the hydrothermal liquefaction of Spirulina algae, swine manure, and digested anaerobic sludge. Bioresource Technology, 2011, 102, 8295-8303.	9.6	534
3	Opportunities and challenges in biological lignin valorization. Current Opinion in Biotechnology, 2016, 42, 40-53.	6.6	517
4	Adipic acid production from lignin. Energy and Environmental Science, 2015, 8, 617-628.	30.8	499
5	Thermochemical conversion of raw and defatted algal biomass via hydrothermal liquefaction and slow pyrolysis. Bioresource Technology, 2012, 109, 178-187.	9.6	377
6	Towards lignin consolidated bioprocessing: simultaneous lignin depolymerization and product generation by bacteria. Green Chemistry, 2015, 17, 4951-4967.	9.0	298
7	Complete Utilization of Spent Coffee Grounds To Produce Biodiesel, Bio-Oil, and Biochar. ACS Sustainable Chemistry and Engineering, 2013, 1, 1286-1294.	6.7	246
8	Heterogeneous Dielsâ€“Alder catalysis for biomass-derived aromatic compounds. Green Chemistry, 2017, 19, 3468-3492.	9.0	201
9	Prediction of microalgae hydrothermal liquefaction products from feedstock biochemical composition. Green Chemistry, 2015, 17, 3584-3599.	9.0	158
10	cis,cis-Muconic acid: separation and catalysis to bio-adipic acid for nylon-6,6 polymerization. Green Chemistry, 2016, 18, 3397-3413.	9.0	147
11	Innovative Chemicals and Materials from Bacterial Aromatic Catabolic Pathways. Joule, 2019, 3, 1523-1537.	24.0	142
12	Renewable acrylonitrile production. Science, 2017, 358, 1307-1310.	12.6	122
13	The Techno-Economic Basis for Coproduct Manufacturing To Enable Hydrocarbon Fuel Production from Lignocellulosic Biomass. ACS Sustainable Chemistry and Engineering, 2016, 4, 3196-3211.	6.7	121
14	Metabolic engineering of Pseudomonas putida for increased polyhydroxyalkanoate production from lignin. Microbial Biotechnology, 2020, 13, 290-298.	4.2	120
15	Life cycle assessment of adipic acid production from lignin. Green Chemistry, 2018, 20, 3857-3866.	9.0	116
16	Effects of shear on microfiltration and ultrafiltration fouling by marine bloom-forming algae. Journal of Membrane Science, 2010, 356, 33-43.	8.2	101
17	Hydrothermal catalytic processing of saturated and unsaturated fatty acids to hydrocarbons with glycerol for in situ hydrogen production. Green Chemistry, 2014, 16, 1507.	9.0	98
18	Toward low-cost biological and hybrid biological/catalytic conversion of cellulosic biomass to fuels. Energy and Environmental Science, 2022, 15, 938-990.	30.8	93

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19	Renewable Unsaturated Polyesters from Muconic Acid. ACS Sustainable Chemistry and Engineering, 2016, 4, 6867-6876.	6.7	90
20	Thermochemical wastewater valorizationviaenhanced microbial toxicity tolerance. Energy and Environmental Science, 2018, 11, 1625-1638.	30.8	77
21	Toward net-zero sustainable aviation fuel with wet wasteâ€“derived volatile fatty acids. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	63
22	Biomass-derived monomers for performance-differentiated fiber reinforced polymer composites. Green Chemistry, 2017, 19, 2812-2825.	9.0	50
23	Ru-Sn/AC for the Aqueous-Phase Reduction of Succinic Acid to 1,4-Butanediol under Continuous Process Conditions. ACS Catalysis, 2017, 7, 6207-6219.	11.2	44
24	Valorization of Waste Lipids through Hydrothermal Catalytic Conversion to Liquid Hydrocarbon Fuels with in Situ Hydrogen Production. ACS Sustainable Chemistry and Engineering, 2016, 4, 1775-1784.	6.7	39
25	Performance-advantaged ether diesel bioblendstock production by a priori design. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26421-26430.	7.1	39
26	Screening of Potential Biomass-Derived Streams as Fuel Blendstocks for Mixing Controlled Compression Ignition Combustion. SAE International Journal of Advances and Current Practices in Mobility, 0, 1, 1117-1138.	2.0	33
27	Tailoring diesel bioblendstock from integrated catalytic upgrading of carboxylic acids: a â€œfuel property firstâ€•approach. Green Chemistry, 2019, 21, 5813-5827.	9.0	25
28	Atomic Layer Deposition with TiO₂ for Enhanced Reactivity and Stability of Aromatic Hydrogenation Catalysts. ACS Catalysis, 2021, 11, 8538-8549.	11.2	24
29	Realizing â€œnet-zero-carbonâ€•sustainable aviation fuel. Joule, 2022, 6, 16-21.	24.0	24
30	Iodineâ€€Catalyzed Isomerization of Dimethyl Muconate. ChemSusChem, 2018, 11, 1768-1780.	6.8	18
31	Inverse Bimetallic RuSn Catalyst for Selective Carboxylic Acid Reduction. ACS Catalysis, 2019, 9, 11350-11359.	11.2	15
32	Single-phase catalysis for reductive etherification of diesel bioblendstocks. Green Chemistry, 2020, 22, 4463-4472.	9.0	14
33	Enhanced Catalyst Durability for Bio-Based Adipic Acid Production by Atomic Layer Deposition. Joule, 2019, 3, 2219-2240.	24.0	12
34	Hierarchically Structured CeO2 Catalyst Particles From Nanocellulose/Alginate Templates for Upgrading of Fast Pyrolysis Vapors. Frontiers in Chemistry, 2019, 7, 730.	3.6	10
35	Catalytic activity and water stability of the MgO(111) surface for 2-pentanone condensation. Applied Catalysis B: Environmental, 2021, 294, 120234.	20.2	9
36	The potential of laser scanning cytometry for early warning of algal blooms in desalination plant feedwater. Desalination, 2011, 277, 193-200.	8.2	5

#	Article	IF	Citations
37	Kinetics and Reactor Design Principles of Volatile Fatty Acid Ketonization for Sustainable Aviation Fuel Production. Industrial & Engineering Chemistry Research, 2022, 61, 2997-3010.	3.7	5
38	Vapor-phase conversion of aqueous 3-hydroxybutyric acid and crotonic acid to propylene over solid acid catalysts. Catalysis Science and Technology, 2021, 11, 6866-6876.	4.1	2
39	Supercritical Methanol Solvolysis and Catalysis for the Conversion of Delignified Woody Biomass into Light Alcohol Gasoline Bioblendstock. Advanced Sustainable Systems, 2022, 6, .	5.3	2
40	MgO(111) Nanocatalyst for Biomass Conversion: A Study of Carbon Coating Effects on Catalyst Faceting and Performance. Catalysis Letters, 0, , 1.	2.6	1
41	Chapter 5. Catalysis's Role in Bioproducts Update. RSC Green Chemistry, 2015, , 71-91.	0.1	0