

David Humbird

List of Publications by Year in descending order

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Version: 2024-02-01

26
papers

1,189
citations

430442

18
h-index

580395

25
g-index

30
all docs

30
docs citations

30
times ranked

1435
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	3.2	121
2	Conceptual Process Design and Techno-Economic Assessment of Ex Situ Catalytic Fast Pyrolysis of Biomass: A Fixed Bed Reactor Implementation Scenario for Future Feasibility. <i>Topics in Catalysis</i> , 2016, 59, 2-18.	1.3	90
3	Economic impact of total solids loading on enzymatic hydrolysis of dilute acid pretreated corn stover. <i>Biotechnology Progress</i> , 2010, 26, 1245-1251.	1.3	88
4	Scale-up economics for cultured meat. <i>Biotechnology and Bioengineering</i> , 2021, 118, 3239-3250.	1.7	82
5	Aeration costs in stirred-tank and bubble column bioreactors. <i>Biochemical Engineering Journal</i> , 2017, 127, 161-166.	1.8	67
6	Surface chemistry associated with plasma etching processes. <i>Applied Surface Science</i> , 2002, 192, 72-87.	3.1	58
7	Improved interatomic potentials for silicon-fluorine and silicon-chlorine. <i>Journal of Chemical Physics</i> , 2004, 120, 2405-2412.	1.2	53
8	Atomistic simulations of spontaneous etching of silicon by fluorine and chlorine. <i>Journal of Applied Physics</i> , 2004, 96, 791-798.	1.1	52
9	Conceptual process design and economics for the production of high-octane gasoline blendstock via indirect liquefaction of biomass through methanol/dimethyl ether intermediates. <i>Biofuels, Bioproducts and Biorefining</i> , 2016, 10, 17-35.	1.9	45
10	Uncertainty in techno-economic estimates of cellulosic ethanol production due to experimental measurement uncertainty. <i>Biotechnology for Biofuels</i> , 2012, 5, 23.	6.2	41
11	One-Dimensional Biomass Fast Pyrolysis Model with Reaction Kinetics Integrated in an Aspen Plus Biorefinery Process Model. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 2463-2470.	3.2	37
12	Fluorocarbon plasma etching of silicon: Factors controlling etch rate. <i>Journal of Applied Physics</i> , 2004, 96, 65-70.	1.1	34
13	Molecular dynamics simulations of Ar ⁺ -induced transport of fluorine through fluorocarbon films. <i>Applied Physics Letters</i> , 2004, 84, 1073-1075.	1.5	26
14	Atomistic simulations of Ar ⁺ -ion-assisted etching of silicon by fluorine and chlorine. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2005, 23, 31-38.	0.9	26
15	Mechanism of silicon etching in the presence of CF ₂ , F, and Ar ⁺ . <i>Journal of Applied Physics</i> , 2004, 96, 2466-2471.	1.1	24
16	Ion-induced damage and annealing of silicon. Molecular dynamics simulations. <i>Pure and Applied Chemistry</i> , 2002, 74, 419-422.	0.9	21
17	Silicon etch by fluorocarbon and argon plasmas in the presence of fluorocarbon films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2005, 23, 1598-1604.	0.9	21
18	Effect of corn stover compositional variability on minimum ethanol selling price (MESP). <i>Bioresource Technology</i> , 2013, 140, 426-430.	4.8	20

#	ARTICLE	IF	CITATIONS
19	Molecular dynamics simulations of SiF surface chemistry with improved interatomic potentials. Plasma Sources Science and Technology, 2004, 13, 548-552.	1.3	18
20	Computational fluid dynamics study of full-scale aerobic bioreactors: Evaluation of gas-liquid mass transfer, oxygen uptake, and dynamic oxygen distribution. Chemical Engineering Research and Design, 2018, 139, 283-295.	2.7	18
21	Molecular dynamics simulations of Ar+ bombardment of Si with comparison to experiment. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 1529-1533.	0.9	16
22	Controlling surfaces in plasma processing: role of ions via molecular dynamics simulations of surface chemistry. Plasma Sources Science and Technology, 2002, 11, A191-A195.	1.3	12
23	Molecular dynamics study of silicon atomic layer etching by chlorine gas and argon ions. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2022, 40, .	0.6	10
24	Scale-Up Considerations for Biofuels. , 2016, , 513-537.		9
25	Silicon etch in the presence of a fluorocarbon overlayer: The role of fluorocarbon cluster ejection. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 52-61.	0.9	7
26	Molecular dynamics simulations of plasma-surface interactions: importance of visualization tools. IEEE Transactions on Plasma Science, 2005, 33, 226-227.	0.6	2