Randy S Lewis

List of Publications by Year
in descending order

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46	2,251	331670 21	254184 43
papers	citations	h-index	g-index

47	47	47	1718
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Kinetics of the Reaction of Nitric Oxide with Oxygen in Aqueous Solutions. Chemical Research in Toxicology, 1994, 7, 568-574.	3.3	283
2	Fermentation of biomass-generated producer gas to ethanol. Biotechnology and Bioengineering, 2004, 86, 587-594.	3.3	203
3	Kinetic Analysis of the Fate of Nitric Oxide Synthesized by Macrophages in Vitro. Journal of Biological Chemistry, 1995, 270, 29350-29355.	3.4	147
4	Kinetics of N-Nitrosation in Oxygenated Nitric Oxide Solutions at Physiological pH: Role of Nitrous Anhydride and Effects of Phosphate and Chloride. Journal of the American Chemical Society, 1995, 117, 3933-3939.	13.7	137
5	Carbon monoxide partial pressure effects on the metabolic process of syngas fermentation. Biochemical Engineering Journal, 2010, 48, 159-165.	3.6	120
6	The effects of syngas impurities on syngas fermentation to liquid fuels. Biomass and Bioenergy, 2011, 35, 2690-2696.	5.7	118
7	Formation of ethanol from carbon monoxide via a new microbial catalyst. Biomass and Bioenergy, 2002, 23, 487-493.	5.7	115
8	A comparison of mass transfer coefficients between trickle-bed, hollow fiber membrane and stirred tank reactors. Bioresource Technology, 2013, 133, 340-346.	9.6	115
9	Effects of biomass-generated producer gas constituents on cell growth, product distribution and hydrogenase activity of Clostridium carboxidivorans P7T. Biomass and Bioenergy, 2006, 30, 665-672.	5.7	112
10	Fermentation of biomass-generated synthesis gas: Effects of nitric oxide. Biotechnology and Bioengineering, 2007, 97, 1080-1086.	3.3	106
11	Ethanol production during semi-continuous syngas fermentation in a trickle bed reactor using Clostridium ragsdalei. Bioresource Technology, 2016, 209, 56-65.	9.6	86
12	The influence of delivery rate on the chemistry and biological effects of nitric oxide. Chemical Research in Toxicology, 1993, 6, 895-899.	3.3	76
13	Measurement and Modeling of Nitric Oxide Release Rates for Nitric Oxide Donors. Chemical Research in Toxicology, 1997, 10, 408-413.	3.3	75
14	Improved haemocompatibility of cysteine-modified polymers via endogenous nitric oxide. Biomaterials, 2002, 23, 1197-1203.	11.4	74
15	Improved hemocompatibility of poly(ethylene terephthalate) modified with various thiol-containing groups. Biomaterials, 2005, 26, 3479-3485.	11.4	52
16	Continuous Ethanol Production from Synthesis Gas by Clostridium ragsdalei in a Trickle-Bed Reactor. Fermentation, 2017, 3, 23.	3.0	48
17	Syngas fermentation to biofuels: Effects of ammonia impurity in raw syngas on hydrogenase activity. Biomass and Bioenergy, 2012, 45, 303-310.	5.7	45
18	A thermodynamic analysis of electron production during syngas fermentation. Bioresource Technology, 2011, 102, 8071-8076.	9.6	37

#	Article	IF	Citations
19	Syngas fermentation to biofuels: Effects of hydrogen partial pressure on hydrogenase efficiency. Biomass and Bioenergy, 2013, 55, 156-162.	5.7	33
20	Analysis of functionalized polyethylene terephthalate with immobilized NTPDase and cysteine. Acta Biomaterialia, 2009, 5, 3382-3393.	8.3	29
21	Membrane mass spectrometer inlet for quantitation of nitric oxide. Biological Mass Spectrometry, 1993, 22, 45-52.	0.5	26
22	Sulfide assessment in bioreactors with gas replacement. Biochemical Engineering Journal, 2010, 49, 429-434.	3.6	19
23	Design of a Novel Apparatus to Study Nitric Oxide (NO) Inhibition of Platelet Adhesion. Annals of Biomedical Engineering, 1998, 26, 1036-1043.	2.5	18
24	Measurement and prediction of mass transfer coefficients for syngas constituents in a hollow fiber reactor. Bioresource Technology, 2019, 276, 1-7.	9.6	17
25	Effect of pH and Metal Ions on the Decomposition Rate of S-nitrosocysteine. Annals of Biomedical Engineering, 2007, 35, 1554-1560.	2.5	15
26	Nitric Oxide, Superoxide, and Peroxynitrite Effects on the Insulin Secretion and Viability of Î²TC3 Cells. Annals of Biomedical Engineering, 2000, 28, 102-109.	2.5	14
27	Effects of Nitric Oxide (NO) and Soluble Nucleoside Triphosphate Diphosphohydrolase (NTPDase) on Inhibition of Platelet Deposition In Vitro. Thrombosis Research, 2001, 102, 331-341.	1.7	14
28	Influence of Agonist, Shear Rate, and Perfusion Time on Nitric Oxide Inhibition of Platelet Deposition. Annals of Biomedical Engineering, 2000, 28, 174-181.	2.5	13
29	Oxidation efficiency of glucose using viologen mediators for glucose fuel cell applications with non-precious anodes. Applied Energy, 2020, 261, 114382.	10.1	13
30	Free Radical Profiles in an Encapsulated Pancreatic Cell Matrix Model. Annals of Biomedical Engineering, 2002, 30, 721-730.	2.5	11
31	Prediction of methyl viologen redox states for biological applications. Biochemical Engineering Journal, 2015, 94, 15-21.	3.6	11
32	Soluble viologen polymers as carbohydrate oxidation catalysts for alkaline carbohydrate fuel cells. Journal of Electroanalytical Chemistry, 2018, 823, 416-421.	3.8	11
33	Electron-mediated carbohydrate fuel cells: Characterizing the homogeneous viologen-mediated electron transfer rate of carbohydrate oxidation. Renewable Energy, 2020, 145, 1985-1991.	8.9	11
34	Novel Devices for the Predictable Delivery of Nitric Oxide to Aqueous Solutions. Chemical Research in Toxicology, 1998, 11, 1346-1351.	3.3	9
35	Nitric Oxide Delivery in Stagnant Systems via Nitric Oxide Donors:â€‰ A Mathematical Model. Chemical Research in Toxicology, 2003, 16, 7-14.	3.3	9
36	Factors leading to sustainable social impact on the affected communities of engineering service learning projects. Development Engineering, 2021, 6, 100066.	1.8	7

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37	Influence of variability in testing parameters on cookstove performance metrics based on the water boiling test. Energy for Sustainable Development, 2020, 58, 112-118.	4.5	6
38	Uncertainty analysis and design guidelines of biomass cookstove thermal efficiency studies. Energy for Sustainable Development, 2016, 34, 54-61.	4.5	5
39	Estimation of transient thermal efficiency of a biomass cookstove. Energy for Sustainable Development, 2016, 33, 122-128.	4.5	4
40	Stirred reactor with continuous nitric oxide sampling for use in kinetic studies. Methods in Enzymology, 1996, 268, 247-259.	1.0	2
41	Positive cooperativity during Azotobacter vinelandii nitrogenase-catalyzed acetylene reduction. Biophysical Chemistry, 2021, 277, 106650.	2.8	2
42	Effects of Optical Configuration on the Accuracy and Response of Low-Cost Optical Particle Counters. International Journal of Thermophysics, 2022, 43, 1.	2.1	1
43	The influence of delivery rate on the chemistry and biological effects of nitric oxide. [Erratum to document cited in CA119:243440]. Chemical Research in Toxicology, 1994, 7, 469-469.	3.3	0
44	Syngas Fermentation to Ethanol: Challenges and Opportunities. , 2010, , 225-246.		0
45	Mass Transfer and Kinetic Limitations During Synthesis Gas Fermentation by Acetogenic Bacteria. , 2011, , .		0
46	Impact of co-firing a traditional Peruvian biomass cookstove with biogas on emissions and combustion efficiency. , 2014, , .		0