Joann S Lighty

List of Publications by Year
in descending order

70 papers	2,247 citations	29 h-index	44 g-index
74 all docs	74 docs citations	74 times ranked	1915 citing authors

#	Article	IF	Citations
1	A simulation-based parametric study of CLOU chemical looping reactor performance. Fuel Processing Technology, 2021, 215, 106755.	3.7	7
2	Computational simulation of a 100â€‑kW dual circulating fluidized bed reactor processing coal by chemical looping with oxygen uncoupling. International Journal of Greenhouse Gas Control, 2019, 90, 102795.	2.3	21
3	Particle formation during pressurized entrained flow gasification of wood powder: Effects of process conditions on chemical composition, nanostructure, and reactivity. Combustion and Flame, 2018, 189, 240-256.	2.8	22
4	Effects of fuel components and combustion particle physicochemical properties on toxicological responses of lung cells. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2018, 53, 295-309.	0.9	24
5	Soot Oxidation by OH: Theory Development, Model, and Experimental Validation. Energy & Fuels, 2017, 31, 2236-2245.	2.5	13
6	Optical properties of organic carbon and soot produced in an inverse diffusion flame. Carbon, 2017, 124, 372-379.	5.4	47
7	Incorporating Oxygen Uncoupling Kinetics into Computational Fluid Dynamic Simulations of a Chemical Looping System. Energy Technology, 2016, 4, 1237-1246.	1.8	13
8	Numerical Simulation Comparison of Two Reactor Configurations for Chemical Looping Combustion and Chemical Looping With Oxygen Uncoupling. Journal of Energy Resources Technology, Transactions of the ASME, 2016, 138, .	1.4	19
9	Temperature and oxygen effects on oxidation-induced fragmentation of soot particles. Combustion and Flame, 2016, 171, 15-26.	2.8	40
10	Soot oxidation-induced fragmentation: Part 2: Experimental investigation of the mechanism of fragmentation. Combustion and Flame, 2016, 163, 170-178.	2.8	39
11	Soot oxidation-induced fragmentation: Part 1: The relationship between soot nanostructure and oxidation-induced fragmentation. Combustion and Flame, 2016, 163, 179-187.	2.8	70
12	Kinetics of Soot Oxidation by Molecular Oxygen in a Premixed Flame. Energy & Fuels, 2016, 30, 3463-3472.	2.5	18
13	An investigation of steam production in chemical-looping combustion (CLC) and chemical-looping with oxygen uncoupling (CLOU) for solid fuels. Chemical Engineering Research and Design, 2015, 94, 12-17.	2.7	13
14	The effect of oxidation pressure on the equilibrium nanostructure of soot particles. Combustion and Flame, 2015, 162, 2422-2430.	2.8	30
15	Effect of nanostructure, oxidative pressure and extent of oxidation on model carbon reactivity. Combustion and Flame, 2015, 162, 1848-1856.	2.8	94
16	A comparative process study of chemical-looping combustion (CLC) and chemical-looping with oxygen uncoupling (CLOU) for solid fuels. International Journal of Greenhouse Gas Control, 2014, 22, 237-243.	2.3	31
17	Sooting behaviors of n-butanol and n-dodecane blends. Combustion and Flame, 2014, 161, 671-679.	2.8	42
18	Soot oxidation kinetics under pressurized conditions. Combustion and Flame, 2014, 161, 2951-2965.	2.8	107

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19	Automated analysis of heterogeneous carbon nanostructures by high-resolution electron microscopy and on-line image processing. Ultramicroscopy, 2013, 129, 53-62.	0.8	10
20	A novel framework for the quantitative analysis of high resolution transmission electron micrographs of soot I. Improved measurement of interlayer spacing. Combustion and Flame, 2013, 160, 909-919.	2.8	26
21	A novel framework for the quantitative analysis of high resolution transmission electron micrographs of soot II. Robust multiscale nanostructure quantification. Combustion and Flame, 2013, 160, 920-932.	2.8	21
22	Analysis of the errors associated with typical pulverized coal char combustion modeling assumptions for oxy-fuel combustion. Combustion and Flame, 2013, 160, 1499-1509.	2.8	52
23	Rate Analysis of Chemical-Looping with Oxygen Uncoupling (CLOU) for Solid Fuels. Energy & Fuels, 2012, 26, 4395-4404.	2.5	53
24	Ash Particulate Formation from Pulverized Coal under Oxy-Fuel Combustion Conditions. Environmental Science & Technology, 2012, 46, 5214-5221.	4.6	50
25	Quantitative differentiation of poorly ordered soot nanostructures: A semi-empirical approach. Fuel, 2012, 99, 1-8.	3.4	16
26	Burnout of soot particles in a two-stage burner with a JP-8 surrogate fuel. Combustion and Flame, 2012, 159, 2441-2448.	2.8	53
27	Kinetics of Copper Oxidation in the Air Reactor of a Chemical Looping Combustion System using the Law of Additive Reaction Times. Industrial & Engineering Chemistry Research, 2011, 50, 13330-13339.	1.8	23
28	Evolution of soot size distribution in premixed ethylene/air and ethylene/benzene/air flames: Experimental and modeling study. Combustion and Flame, 2011, 158, 98-104.	2.8	33
29	Studies of soot oxidation and fragmentation in a two-stage burner under fuel-lean and fuel-rich conditions. Proceedings of the Combustion Institute, 2011, 33, 659-666.	2.4	47
30	Low-Wind/High Particulate Matter Episodes in the Calexico/Mexicali Region. Journal of the Air and Waste Management Association, 2010, 60, 1476-1486.	0.9	10
31	Confounding Effects of Aqueous-Phase Impinger Chemistry on Apparent Oxidation of Mercury in Flue Gases. Environmental Science & Technology, 2008, 42, 2594-2599.	4.6	31
32	<i>Report:</i> Combustion Byproducts and Their Health Effects: Summary of the 10th International Congress. Environmental Engineering Science, 2008, 25, 1107-1114.	0.8	24
33	Experimental evaluation of the effects of quench rate and quartz surface area on homogeneous mercury oxidation. Proceedings of the Combustion Institute, 2007, 31, 2855-2861.	2.4	38
34	Black Carbon and Polycyclic Aromatic Hydrocarbon Emissions from Vehicles in the United Statesâ€"Mexico Border Region: Pilot Study. Journal of the Air and Waste Management Association, 2006, 56, 285-293.	0.9	13
35	Real-Time Measurements of Jet Aircraft Engine Exhaust. Journal of the Air and Waste Management Association, 2005, 55, 583-593.	0.9	45
36	Simulation of the Evolution of Particle Size Distributions in a Vehicle Exhaust Plume with Unconfined Dilution by Ambient Air. Journal of the Air and Waste Management Association, 2005, 55, 437-445.	0.9	20

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37	Evaluation of 1047-nm Photoacoustic Instruments and Photoelectric Aerosol Sensors in Source-Sampling of Black Carbon Aerosol and Particle-Bound PAHs from Gasoline and Diesel Powered Vehicles. Environmental Science & Technology, 2005, 39, 5398-5406.	4.6	53
38	Phase and Size Distribution of Polycyclic Aromatic Hydrocarbons in Diesel and Gasoline Vehicle Emissions. Environmental Science & Technology, 2004, 38, 2557-2567.	4.6	218
39	Evaluation of Catalyzed and Electrically Heated Filters for Removal of Particulate Emissions from Diesel-A- and JP-8-Fueled Engines. Journal of the Air and Waste Management Association, 2004, 54, 83-92.	0.9	1
40	Characterization of Submicron Exhaust Particles from Engines Operating Without Load on Diesel and JP-8 Fuels. Aerosol Science and Technology, 2003, 37, 355-368.	1.5	11
41	Characterization of Exhaust Particles from Military Vehicles Fueled with Diesel, Gasoline, and JP-8. Journal of the Air and Waste Management Association, 2003, 53, 273-282.	0.9	11
42	Exploratory Studies of PM₁₀Receptor and Source Profiling by GC/MS and Principal Component Analysis of Temporally and Spatially Resolved Ambient Samples. Journal of the Air and Waste Management Association, 2001, 51, 766-784.	0.9	25
43	Coal Fly Ash and Mineral Dust for Toxicology and Particle Characterization Studies: Equipment and Methods for PM2.5- and PM1-Enriched Samples. Aerosol Science and Technology, 2000, 32, 127-141.	1.5	25
44	Interleukin-8 Levels in Human Lung Epithelial Cells Are Increased in Response to Coal Fly Ash and Vary with the Bioavailability of Iron, as a Function of Particle Size and Source of Coal. Chemical Research in Toxicology, 2000, 13, 118-125.	1.7	96
45	MÃ¶ssbauer Spectroscopy Indicates That Iron in an Aluminosilicate Glass Phase Is the Source of the Bioavailable Iron from Coal Fly Ash. Chemical Research in Toxicology, 2000, 13, 161-164.	1.7	42
46	Mobilization of Iron from Coal Fly Ash Was Dependent upon the Particle Size and Source of Coal:Â Analysis of Rates and Mechanisms. Chemical Research in Toxicology, 2000, 13, 382-389.	1.7	12
47	The role of research in practical incineration systemsâ€"A look at the past and the future. Proceedings of the Combustion Institute, 1998, 27, 1255-1273.	0.3	12
48	Trace metals behavior during the thermal treatment of paper-mill sludge. Waste Management, 1998, 18, 423-431.	3.7	18
49	Mobilization of Iron from Coal Fly Ash Was Dependent upon the Particle Size and the Source of Coal. Chemical Research in Toxicology, 1998, 11, 1494-1500.	1.7	47
50	Waste Incineration for Resource Recovery in Bioregenerative Life Support Systems. , 1998, , .		19
51	A comprehensive heat transfer model for rotary desorbers. Canadian Journal of Chemical Engineering, 1996, 74, 63-76.	0.9	4
52	Biosludge incineration in FBCs: Behavior of ash particles. Combustion and Flame, 1995, 100, 121-130.	2.8	58
53	Design and construction of a circulating fluidized bed combustion facility for use in studying the thermal remediation of wastes. Review of Scientific Instruments, 1994, 65, 2704-2713.	0.6	3
54	Determination of Metal Behavior during the Incineration of a Contaminated Montmorillonite Clay. Environmental Science & Technology, 1994, 28, 1791-1800.	4.6	30

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55	Bed mixing and heat transfer in a batch loaded rotary kiln. Environmental Progress, 1993, 12, 101-109.	0.8	8
56	Solid Waste Incineration in Rotary Kilns. Combustion Science and Technology, 1993, 93, 245-276.	1.2	19
57	Thermal treatment of hazardous wastes: a comparison of fluidized bed and rotary kiln incineration. Energy & Fuels, 1993, 7, 803-813.	2.5	17
58	Fundamental Studies of Metal Behavior During Solids Incineration. Combustion Science and Technology, 1992, 85, 375-390.	1.2	46
59	The Desorption of Toluene from a Montmorillonite Clay Adsorbent in a Rotary Kiln Environment. Journal of the Air and Waste Management Association, 1992, 42, 681-690.	0.2	12
60	Rotary kiln incineration. Comparison and scaling of field-scale and pilot-scale contaminant evolution rates from sorbent beds. Environmental Science & Technology, 1991, 25, 1142-1152.	4.6	20
61	Thermal analysis of rotary kiln incineration: Comparison of theory and experiment. Combustion and Flame, 1991, 86, 101-114.	2.8	30
62	Fast, Repetitive GC/MS Analysis of Thermally Desorbed Polycyclic Aromatic Hydrocarbons (PAHs) from Contaminated Soils. Combustion Science and Technology, 1990, 74, 297-309.	1.2	16
63	Rate Limiting Processes in the Rotary-Kiln Incineration of Contaminated Solids. Combustion Science and Technology, 1990, 74, 31-49.	1.2	20
64	Fundamentals for the thermal remediation of contaminated soils. Particle and bed desorption models. Environmental Science & Technology, 1990, 24, 750-757.	4.6	55
65	Rotary Kiln Incineration II. Laboratory-Scale Desorption and Kiln-Simulator Studiesâ€"Solids. Japca, 1989, 39, 187-193.	0.3	4
66	Rotary kiln incineration - combustion chamber dynamics. Journal of Hazardous Materials, 1989, 22, 195-219.	6.5	15
67	Fundamental experiments on thermal desorption of contaminants from soils. Environmental Progress, 1989, 8, 57-61.	0.8	34
68	Characterization of thermal desorption phenomena for the cleanup of contaminated soil. Nuclear and Chemical Waste Management, 1988, 8, 225-237.	0.2	38
69	Waste Incineration for Resource Recovery in a Bioregenerative Life Support System. , 0, , .		8
70	Catalytic Reduction and Oxidation of Biomass Combustor Effluent. , 0, , .		1