Joann S Lighty

List of Publications by Year
in descending order

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70	2,247	172386	243529
papers	citations	29	44
		h-index	g-index

74	74	74	1915
all docs	docs citations	times ranked	citing authors

#	ARTICLE	IF	CITATIONS
1	Phase and Size Distribution of Polycyclic Aromatic Hydrocarbons in Diesel and Gasoline Vehicle Emissions. Environmental Science & Technology, 2004, 38, 2557-2567.	4.6	218
2	Soot oxidation kinetics under pressurized conditions. Combustion and Flame, 2014, 161, 2951-2965.	2.8	107
3	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
4	Effect of nanostructure, oxidative pressure and extent of oxidation on model carbon reactivity. Combustion and Flame, 2015, 162, 1848-1856.	2.8	94
5	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
6	Biosludge incineration in FBCs: Behavior of ash particles. Combustion and Flame, 1995, 100, 121-130.	2.8	58
7	Fundamentals for the thermal remediation of contaminated soils. Particle and bed desorption models. Environmental Science & Technology, 1990, 24, 750-757.	4.6	55
8	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
9	Rate Analysis of Chemical-Looping with Oxygen Uncoupling (CLOU) for Solid Fuels. Energy & Fuels, 2012, 26, 4395-4404.	2.5	53
10	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
11	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
12	Ash Particulate Formation from Pulverized Coal under Oxy-Fuel Combustion Conditions. Environmental Science & Technology, 2012, 46, 5214-5221.	4.6	50
13	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
14	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
15	Optical properties of organic carbon and soot produced in an inverse diffusion flame. Carbon, 2017, 124, 372-379.	5.4	47
16	Fundamental Studies of Metal Behavior During Solids Incineration. Combustion Science and Technology, 1992, 85, 375-390.	1.2	46
17	Real-Time Measurements of Jet Aircraft Engine Exhaust. Journal of the Air and Waste Management Association, 2005, 55, 583-593.	0.9	45
18	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

#	Article	IF	Citations
19	Sooting behaviors of n-butanol and n-dodecane blends. Combustion and Flame, 2014, 161, 671-679.	2.8	42
20	Temperature and oxygen effects on oxidation-induced fragmentation of soot particles. Combustion and Flame, 2016, 171, 15-26.	2.8	40
21	Soot oxidation-induced fragmentation: Part 2: Experimental investigation of the mechanism of fragmentation. Combustion and Flame, 2016, 163, 170-178.	2.8	39
22	Characterization of thermal desorption phenomena for the cleanup of contaminated soil. Nuclear and Chemical Waste Management, 1988, 8, 225-237.	0.2	38
23	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
24	Fundamental experiments on thermal desorption of contaminants from soils. Environmental Progress, 1989, 8, 57-61.	0.8	34
25	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
26	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
27	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
28	Thermal analysis of rotary kiln incineration: Comparison of theory and experiment. Combustion and Flame, 1991, 86, 101-114.	2.8	30
29	Determination of Metal Behavior during the Incineration of a Contaminated Montmorillonite Clay. Environmental Science & Technology, 1994, 28, 1791-1800.	4.6	30
30	The effect of oxidation pressure on the equilibrium nanostructure of soot particles. Combustion and Flame, 2015, 162, 2422-2430.	2.8	30
31	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
32	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
33	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
34	<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
35	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
36	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

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37	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
38	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
39	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
40	Rate Limiting Processes in the Rotary-Kiln Incineration of Contaminated Solids. Combustion Science and Technology, 1990, 74, 31-49.	1.2	20
41	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
42	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
43	Solid Waste Incineration in Rotary Kilns. Combustion Science and Technology, 1993, 93, 245-276.	1.2	19
44	Waste Incineration for Resource Recovery in Bioregenerative Life Support Systems. , 1998, , .		19
45	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
46	Trace metals behavior during the thermal treatment of paper-mill sludge. Waste Management, 1998, 18, 423-431.	3.7	18
47	Kinetics of Soot Oxidation by Molecular Oxygen in a Premixed Flame. Energy & Fuels, 2016, 30, 3463-3472.	2.5	18
48	Thermal treatment of hazardous wastes: a comparison of fluidized bed and rotary kiln incineration. Energy & Fuels, 1993, 7, 803-813.	2.5	17
49	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
50	Quantitative differentiation of poorly ordered soot nanostructures: A semi-empirical approach. Fuel, 2012, 99, 1-8.	3.4	16
51	Rotary kiln incineration - combustion chamber dynamics. Journal of Hazardous Materials, 1989, 22, 195-219.	6.5	15
52	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
53	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
54	Incorporating Oxygen Uncoupling Kinetics into Computational Fluid Dynamic Simulations of a Chemical Looping System. Energy Technology, 2016, 4, 1237-1246.	1.8	13

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55	Soot Oxidation by OH: Theory Development, Model, and Experimental Validation. Energy & Fuels, 2017, 31, 2236-2245.	2.5	13
56	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
57	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
58	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
59	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
60	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
61	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
62	Automated analysis of heterogeneous carbon nanostructures by high-resolution electron microscopy and on-line image processing. Ultramicroscopy, 2013, 129, 53-62.	0.8	10
63	Bed mixing and heat transfer in a batch loaded rotary kiln. Environmental Progress, 1993, 12, 101-109.	0.8	8
64	Waste Incineration for Resource Recovery in a Bioregenerative Life Support System. , 0, , .		8
65	A simulation-based parametric study of CLOU chemical looping reactor performance. Fuel Processing Technology, 2021, 215, 106755.	3.7	7
66	Rotary Kiln Incineration II. Laboratory-Scale Desorption and Kiln-Simulator Studiesâ€"Solids. Japca, 1989, 39, 187-193.	0.3	4
67	A comprehensive heat transfer model for rotary desorbers. Canadian Journal of Chemical Engineering, 1996, 74, 63-76.	0.9	4
68	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
69	Catalytic Reduction and Oxidation of Biomass Combustor Effluent. , 0, , .		1
70	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