Larry L Baxter

List of Publications by Year
in descending order

79 papers	7,427 citations	101496 36 h-index	85498 71 g-index
84 all docs	84 docs citations	84 times ranked	5695 citing authors

#	Article	IF	Citations
1	Combustion properties of biomass. Fuel Processing Technology, 1998, 54, 17-46.	3.7	1,538
2	The implications of chlorine-associated corrosion on the operation of biomass-fired boilers. Progress in Energy and Combustion Science, 2000, 26, 283-298.	15.8	616
3	The behavior of inorganic material in biomass-fired power boilers: field and laboratory experiences. Fuel Processing Technology, 1998, 54, 47-78.	3.7	557
4	Biomass-coal co-combustion: opportunity for affordable renewable energy. Fuel, 2005, 84, 1295-1302.	3.4	484
5	Ash deposition during biomass and coal combustion: A mechanistic approach. Biomass and Bioenergy, 1993, 4, 85-102.	2.9	349
6	Boiler deposits from firing biomass fuels. Biomass and Bioenergy, 1996, 10, 125-138.	2.9	349
7	Effects of particle shape and size on devolatilization of biomass particle. Fuel, 2010, 89, 1156-1168.	3.4	267
8	Comprehensive Study of Biomass Particle Combustion. Energy & Fuels, 2008, 22, 2826-2839.	2.5	188
9	Deposition of potassium salts on heat transfer surfaces in straw-fired boilers: a pilot-scale study. Fuel, 2000, 79, 131-139.	3.4	184
10	Mechanisms and kinetics of CO 2 hydrogenation to value-added products: A detailed review on current status and future trends. Renewable and Sustainable Energy Reviews, 2017, 80, 1292-1311.	8.2	175
11	Effects of sulfate species on V2O5/TiO2 SCR catalysts in coal and biomass-fired systems. Applied Catalysis B: Environmental, 2009, 92, 30-40.	10.8	163
12	Biomass fly ash in concrete: Mixture proportioning and mechanical properties. Fuel, 2008, 87, 365-371.	3.4	143
13	Pilot-Scale Investigation of the Influence of Coalâ^'Biomass Cofiring on Ash Deposition. Energy & Fuels, 2002, 16, 343-355.	2.5	139
14	A CFD model for thermal conversion of thermally thick biomass particles. Fuel Processing Technology, 2012, 95, 96-108.	3.7	125
15	Char fragmentation and fly ash formation during pulverized-coal combustion. Combustion and Flame, 1992, 90, 174-184.	2.8	117
16	Durability of biomass fly ash concrete: Freezing and thawing and rapid chloride permeability tests. Fuel, 2008, 87, 359-364.	3.4	116
17	Biomass fly ash in concrete: SEM, EDX and ESEM analysis. Fuel, 2008, 87, 372-379.	3.4	97
18	Comprehensive study of biomass fly ash in concrete: Strength, microscopy, kinetics and durability. Fuel Processing Technology, 2007, 88, 1165-1170.	3.7	93

#	ARTICLE	IF	CITATIONS
19	Hydrogen production: Perspectives, separation with special emphasis on kinetics of WGS reaction: A state-of-the-art review. Journal of Industrial and Engineering Chemistry, 2017, 49, 1-25.	2.9	92
20	Effects of Intraparticle Heat and Mass Transfer on Biomass Devolatilization:â€‰ Experimental Results and Model Predictions. Energy & Fuels, 2004, 18, 1021-1031.	2.5	91
21	A mechanistic description of ash deposition during pulverized coal combustion: predictions compared with observations. Fuel, 1993, 72, 1411-1418.	3.4	89
22	Nitrogen Release during Coal Combustion. Energy & Fuels, 1996, 10, 188-196.	2.5	75
23	Plant-level dynamic optimization of Cryogenic Carbon Capture with conventional and renewable power sources. Applied Energy, 2015, 149, 354-366.	5.1	70
24	Towards a CFD-based mechanistic deposit formation model for straw-fired boilers. Fuel, 2006, 85, 833-848.	3.4	68
25	Influence of ash deposit chemistry and structure on physical and transport properties. Fuel Processing Technology, 1998, 56, 81-88.	3.7	64
26	Particle surface temperature measurements with multicolor band pyrometry. AICHE Journal, 2009, 55, 243-255.	1.8	58
27	Prediction of Tar and Light Gas during Pyrolysis of Black Liquor and Biomass. Energy & Fuels, 2012, 26, 3381-3387.	2.5	55
28	IGNITION BEHAVIOR OF LIVE CALIFORNIA CHAPARRAL LEAVES. Combustion Science and Technology, 2004, 176, 1577-1591.	1.2	54
29	Biomass cofiring impacts on flame structure and emissions. Proceedings of the Combustion Institute, 2007, 31, 2813-2820.	2.4	54
30	Investigation of Ash Deposition Rates for a Suite of Biomass Fuels and Fuel Blends. Energy & Fuels, 2006, 20, 1008-1014.	2.5	53
31	Prediction and validation of external cooling loop cryogenic carbon capture (CCC-ECL) for full-scale coal-fired power plant retrofit. International Journal of Greenhouse Gas Control, 2015, 42, 200-212.	2.3	50
32	Experimental Measurements of the Thermal Conductivity of Ash Deposits:â€‰ Part 2. Effects of Sintering and Deposit Microstructure. Energy & Fuels, 2001, 15, 75-84.	2.5	49
33	Design and analysis of the natural gas liquefaction optimization process- CCC-ES (energy storage of) Tj ETQq1 1 0.784314 rgBT /Overlo	4.5	46
34	The character of ash deposits and the thermal performance of furnaces. Fuel Processing Technology, 1995, 44, 143-153.	3.7	43
35	The release of iron during the combustion of Illinois No. 6 coal. Combustion and Flame, 1992, 88, 1-14.	2.8	38
36	Experimental Measurements of the Thermal Conductivity of Ash Deposits:â€‰ Part 1. Measurement Technique. Energy & Fuels, 2001, 15, 66-74.	2.5	38

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37	Deposit formation on a single cylinder during combustion of herbaceous biomass. Fuel, 2000, 79, 141-151.	3.4	37
38	Alternative extractive distillation system for CO2â€“ethane azeotrope separation in enhanced oil recovery processes. Applied Thermal Engineering, 2016, 96, 39-47.	3.0	35
39	Catalytic performance of an iron-based catalyst in Fischerâ€“Tropsch synthesis. Fuel Processing Technology, 2014, 127, 163-170.	3.7	34
40	Interactions between coal and biomass when cofiring. Proceedings of the Combustion Institute, 1998, 27, 1351-1359.	0.3	33
41	Dynamic optimization of a hybrid system of energy-storing cryogenic carbon capture and a baseline power generation unit. Applied Energy, 2016, 172, 66-79.	5.1	33
42	Biomass char particle surface area and porosity dynamics during gasification. Fuel, 2020, 264, 116833.	3.4	32
43	The evolution of mineral particle size distributions during early stages of coal combustion. Progress in Energy and Combustion Science, 1990, 16, 261-266.	15.8	23
44	Transient natural gas liquefaction and its application to CCC-ES (energy storage with cryogenic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 4	4.5	23
45	Chemical fractionation tests on South African coal sources to obtain species-specific information on ash fusion temperatures (AFT). Fuel, 2005, 84, 1768-1777.	3.4	21
46	Fuel characteristics of processed, high-fiber sugarcane. Fuel Processing Technology, 2003, 81, 35-55.	3.7	20
47	In situ, real-time characterization of coal ash deposits using Fourier transform infrared emission spectroscopy. Energy & Fuels, 1993, 7, 755-760.	2.5	18
48	Release of inorganic material during coal devolatilization. Combustion and Flame, 1997, 108, 494-502.	2.8	18
49	Transient natural gas liquefaction process comparison-dynamic heat exchanger under transient changes in flow. Applied Thermal Engineering, 2016, 109, 775-788.	3.0	18
50	Reactivity of NH3 and HCN during low-grade fuel combustion in a swirling flow burner. Proceedings of the Combustion Institute, 2007, 31, 2787-2794.	2.4	17
51	Time-of-Flight Secondary Ion Mass Spectrometry of a Range of Coal Samples: A Chemometrics (PCA,) Tj ETQq1 1 0.784314 rgBT /Overlo	2.5	16
52	Effect of Operating Conditions on Cryogenic Carbon Dioxide Removal. Energy Technology, 2017, 5, 1588-1598.	1.8	16
53	Plant-wide control of coupled distillation columns with partial condensers. Applied Thermal Engineering, 2016, 102, 785-799.	3.0	14
54	Theoretical and experimental analysis of dynamic plate heat exchanger: Non-retrofit configuration. Applied Thermal Engineering, 2016, 93, 1006-1019.	3.0	14

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55	Non-catalytic ash effect on char reactivity. Applied Energy, 2020, 260, 114358.	5.1	14
56	A kinetic study on the structural and functional roles of lanthana in iron-based high temperature waterâ€"gas shift catalysts. International Journal of Hydrogen Energy, 2014, 39, 7306-7317.	3.8	13
57	The role of dispersants in CWS agglomeration during combustion. Fuel, 1991, 70, 84-89.	3.4	12
58	The effect of surfactants on disaggregation of coal-water slurry particles during combustion. Combustion and Flame, 1992, 90, 199-209.	2.8	12
59	In situ analysis of ash deposits from black liquor combustion. Vibrational Spectroscopy, 1998, 16, 95-103.	1.2	12
60	Combustion of residual biosolids from a high solids anaerobic digestion/aerobic composting process. Biomass and Bioenergy, 1997, 12, 367-381.	2.9	11
61	Biomass-Coal Cofiring: an Overview of Technical Issues. Green Energy and Technology, 2011, , 43-73.	0.4	11
62	Theoretical and experimental analysis of dynamic heat exchanger: Retrofit configuration. Energy, 2016, 96, 545-560.	4.5	11
63	An experimental method for making spectral emittance and surface temperature measurements of opaque surfaces. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1191-1196.	1.1	10
64	In situ measurements of the spectral emittance of coal ash deposits. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1978-1986.	1.1	10
65	Models To Predict Kinetics of NOx Reduction by Chars as a Function of Coal Rank. Energy & Fuels, 2019, 33, 5498-5504.	2.5	10
66	Kinetics of NO Reduction by Coal, Biomass, and Graphitic Chars: Effects of Burnout Level and Conditions. Energy & Fuels, 2014, 28, 4762-4768.	2.5	9
67	Surface temperature and time-dependent measurements of black liquor droplet combustion. AIChE Journal, 2008, 54, 1926-1931.	1.8	8
68	Investigating the impact of Cryogenic Carbon Capture on power plant performance. , 2015, , .		8
69	in situ measurements of the thermal conductivity of ash deposits. Proceedings of the Combustion Institute, 1998, 27, 1727-1735.	0.3	7
70	Biomass Combustion Characteristics and Implications for Renewable Energy. Green Energy and Technology, 2011, , 95-121.	0.4	7
71	The dynamic variation of particle capture efficiency during ash deposition in coal-fired combustors. Proceedings of the Combustion Institute, 1991, 23, 993-999.	0.3	5
72	Fossil Fuel Power Stationsâ€"Coal Utilization. , 2003, , 121-144.		4

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73	Biomass Ash in Concrete-Mitigation of Alkali Silica Reactions (ASRs) â€” Expansions with Different Opal Percentages. Key Engineering Materials, 0, 400-402, 131-136.	0.4	4
74	Fireside Considerations When Cofiring Biomass with Coal in PC Boilers. , 2002, , 247-258.		1
75	Experimental and theoretical biomass char diameter variation during gasification. Energy, 2021, 219, 119431.	4.5	1
76	Energetics to energy: Combustion and environmental considerations surrounding the reapplication of energetic materials as boiler fuels. Proceedings of the Combustion Institute, 1998, 27, 1317-1325.	0.3	0
77	In Situ Measurements of the Thermal Conductivity of Ash Deposits Formed in a Pilot-Scale Combustor. , 2002, , 485-496.		0
78	Analysis of Coal by Static Time-of-Flight Secondary Ion Mass Spectrometry (TOF-SIMS). Surface Science Spectra, 2010, 17, 1-67.	0.3	0
79	An Experimental Method for Making In Situ Spectral Emittance Measurements of Coal Ash Deposits. , 2009, , .		0