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	Experimental and theoretical biomass char diameter variation during gasification. Energy, 2021, 219, 119431.	4.5	1
2	Non-catalytic ash effect on char reactivity. Applied Energy, 2020, 260, 114358.	5.1	14
3	Biomass char particle surface area and porosity dynamics during gasification. Fuel, 2020, 264, 116833.	3.4	32
4	Models To Predict Kinetics of NOx Reduction by Chars as a Function of Coal Rank. Energy & Fuels, 2019, 33, 5498-5504.	2.5	10
5	Effect of Operating Conditions on Cryogenic Carbon Dioxide Removal. Energy Technology, 2017, 5, 1588-1598.	1.8	16
6	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
7	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
8	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
9	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
10	Plant-wide control of coupled distillation columns with partial condensers. Applied Thermal Engineering, 2016, 102, 785-799.	3.0	14
11	Transient natural gas liquefaction process comparison-dynamic heat exchanger under transient changes in flow. Applied Thermal Engineering, 2016, 109, 775-788.	3.0	18
12	Theoretical and experimental analysis of dynamic heat exchanger: Retrofit configuration. Energy, 2016, 96, 545-560.	4.5	11
13	Alternative extractive distillation system for CO2â€“ethane azeotrope separation in enhanced oil recovery processes. Applied Thermal Engineering, 2016, 96, 39-47.	3.0	35
14	Theoretical and experimental analysis of dynamic plate heat exchanger: Non-retrofit configuration. Applied Thermal Engineering, 2016, 93, 1006-1019.	3.0	14
15	Plant-level dynamic optimization of Cryogenic Carbon Capture with conventional and renewable power sources. Applied Energy, 2015, 149, 354-366.	5.1	70
16	Investigating the impact of Cryogenic Carbon Capture on power plant performance. , 2015, , .		8
17	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
18	Design and analysis of the natural gas liquefaction optimization process- CCC-ES (energy storage of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	4.5	46

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19	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
20	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
21	Catalytic performance of an iron-based catalyst in Fischerâ€“Tropsch synthesis. Fuel Processing Technology, 2014, 127, 163-170.	3.7	34
22	Prediction of Tar and Light Gas during Pyrolysis of Black Liquor and Biomass. Energy & Fuels, 2012, 26, 3381-3387.	2.5	55
23	A CFD model for thermal conversion of thermally thick biomass particles. Fuel Processing Technology, 2012, 95, 96-108.	3.7	125
24	Biomass-Coal Cofiring: an Overview of Technical Issues. Green Energy and Technology, 2011, , 43-73.	0.4	11
25	Biomass Combustion Characteristics and Implications for Renewable Energy. Green Energy and Technology, 2011, , 95-121.	0.4	7
26	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
27	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
28	Effects of particle shape and size on devolatilization of biomass particle. Fuel, 2010, 89, 1156-1168.	3.4	267
29	Analysis of Coal by Static Time-of-Flight Secondary Ion Mass Spectrometry (TOF-SIMS). Surface Science Spectra, 2010, 17, 1-67.	0.3	0
30	Particle surface temperature measurements with multicolor band pyrometry. AICHE Journal, 2009, 55, 243-255.	1.8	58
31	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
32	An Experimental Method for Making In Situ Spectral Emittance Measurements of Coal Ash Deposits. , 2009, , .		0
33	Surface temperature and time-dependent measurements of black liquor droplet combustion. AICHE Journal, 2008, 54, 1926-1931.	1.8	8
34	Biomass fly ash in concrete: SEM, EDX and ESEM analysis. Fuel, 2008, 87, 372-379.	3.4	97
35	Biomass fly ash in concrete: Mixture proportioning and mechanical properties. Fuel, 2008, 87, 365-371.	3.4	143
36	Durability of biomass fly ash concrete: Freezing and thawing and rapid chloride permeability tests. Fuel, 2008, 87, 359-364.	3.4	116

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37	Comprehensive Study of Biomass Particle Combustion. Energy & Fuels, 2008, 22, 2826-2839.	2.5	188
38	Time-of-Flight Secondary Ion Mass Spectrometry of a Range of Coal Samples: A Chemometrics (PCA,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	2.5	16
39	Comprehensive study of biomass fly ash in concrete: Strength, microscopy, kinetics and durability. Fuel Processing Technology, 2007, 88, 1165-1170.	3.7	93
40	Biomass cofiring impacts on flame structure and emissions. Proceedings of the Combustion Institute, 2007, 31, 2813-2820.	2.4	54
41	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
42	Investigation of Ash Deposition Rates for a Suite of Biomass Fuels and Fuel Blends. Energy & Fuels, 2006, 20, 1008-1014.	2.5	53
43	Towards a CFD-based mechanistic deposit formation model for straw-fired boilers. Fuel, 2006, 85, 833-848.	3.4	68
44	Biomass-coal co-combustion: opportunity for affordable renewable energy. Fuel, 2005, 84, 1295-1302.	3.4	484
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	IGNITION BEHAVIOR OF LIVE CALIFORNIA CHAPARRAL LEAVES. Combustion Science and Technology, 2004, 176, 1577-1591.	1.2	54
47	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
48	Fuel characteristics of processed, high-fiber sugarcane. Fuel Processing Technology, 2003, 81, 35-55.	3.7	20
49	Fossil Fuel Power Stationsâ€”Coal Utilization. , 2003, , 121-144.		4
50	Fireside Considerations When Cofiring Biomass with Coal in PC Boilers. , 2002, , 247-258.		1
51	In Situ Measurements of the Thermal Conductivity of Ash Deposits Formed in a Pilot-Scale Combustor. , 2002, , 485-496.		0
52	Pilot-Scale Investigation of the Influence of Coalâˆ’Biomass Cofiring on Ash Deposition. Energy & Fuels, 2002, 16, 343-355.	2.5	139
53	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
54	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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55	Deposition of potassium salts on heat transfer surfaces in straw-fired boilers: a pilot-scale study. Fuel, 2000, 79, 131-139.	3.4	184
56	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
57	Deposit formation on a single cylinder during combustion of herbaceous biomass. Fuel, 2000, 79, 141-151.	3.4	37
58	Combustion properties of biomass. Fuel Processing Technology, 1998, 54, 17-46.	3.7	1,538
59	The behavior of inorganic material in biomass-fired power boilers: field and laboratory experiences. Fuel Processing Technology, 1998, 54, 47-78.	3.7	557
60	in situ measurements of the thermal conductivity of ash deposits. Proceedings of the Combustion Institute, 1998, 27, 1727-1735.	0.3	7
61	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
62	Interactions between coal and biomass when cofiring. Proceedings of the Combustion Institute, 1998, 27, 1351-1359.	0.3	33
63	In situ analysis of ash deposits from black liquor combustion. Vibrational Spectroscopy, 1998, 16, 95-103.	1.2	12
64	Influence of ash deposit chemistry and structure on physical and transport properties. Fuel Processing Technology, 1998, 56, 81-88.	3.7	64
65	Combustion of residual biosolids from a high solids anaerobic digestion/aerobic composting process. Biomass and Bioenergy, 1997, 12, 367-381.	2.9	11
66	Release of inorganic material during coal devolatilization. Combustion and Flame, 1997, 108, 494-502.	2.8	18
67	Nitrogen Release during Coal Combustion. Energy & Fuels, 1996, 10, 188-196.	2.5	75
68	Boiler deposits from firing biomass fuels. Biomass and Bioenergy, 1996, 10, 125-138.	2.9	349
69	The character of ash deposits and the thermal performance of furnaces. Fuel Processing Technology, 1995, 44, 143-153.	3.7	43
70	Ash deposition during biomass and coal combustion: A mechanistic approach. Biomass and Bioenergy, 1993, 4, 85-102.	2.9	349
71	A mechanistic description of ash deposition during pulverized coal combustion: predictions compared with observations. Fuel, 1993, 72, 1411-1418.	3.4	89
72	In situ, real-time characterization of coal ash deposits using Fourier transform infrared emission spectroscopy. Energy & Fuels, 1993, 7, 755-760.	2.5	18

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73	The release of iron during the combustion of Illinois No. 6 coal. Combustion and Flame, 1992, 88, 1-14.	2.8	38
74	Char fragmentation and fly ash formation during pulverized-coal combustion. Combustion and Flame, 1992, 90, 174-184.	2.8	117
75	The effect of surfactants on disaggregation of coal-water slurry particles during combustion. Combustion and Flame, 1992, 90, 199-209.	2.8	12
76	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
77	The role of dispersants in CWS agglomeration during combustion. Fuel, 1991, 70, 84-89.	3.4	12
78	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
79	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