Marcus ÃÞhman

List of Publications by Year
in descending order

85 papers	4,250 citations	117571 34 h-index	114418 63 g-index
85 all docs	85 docs citations	85 times ranked	2263 citing authors

#	Article	IF	Citations
1	Ash Transformation Chemistry during Combustion of Biomass. Energy & Fuels, 2012, 26, 85-93.	2.5	360
2	Bed Agglomeration Characteristics during Fluidized Bed Combustion of Biomass Fuels. Energy & Fuels, 2000, 14, 169-178.	2.5	261
3	Slagging Characteristics during Combustion of Cereal Grains Rich in Phosphorus. Energy & Fuels, 2007, 21, 710-717.	2.5	176
4	Mechanisms of Bed Agglomeration during Fluidized-Bed Combustion of Biomass Fuels. Energy & Fuels, 2005, 19, 825-832.	2.5	171
5	Slagging Characteristics during Residential Combustion of Biomass Pellets. Energy & Fuels, 2008, 22, 3536-3543.	2.5	167
6	Use of biomass in integrated steelmaking â€“ Status quo, future needs and comparison to other low-CO2 steel production technologies. Applied Energy, 2018, 213, 384-407.	5.1	147
7	The Role of Kaolin in Prevention of Bed Agglomeration during Fluidized Bed Combustion of Biomass Fuels. Energy & Fuels, 2000, 14, 618-624.	2.5	129
8	Bed Agglomeration Characteristics and Mechanisms during Gasification and Combustion of Biomass Fuels. Energy & Fuels, 2005, 19, 1742-1748.	2.5	125
9	Effects of raw material particle size distribution on the characteristics of Scots pine sawdust fuel pellets. Fuel Processing Technology, 2008, 89, 1324-1329.	3.7	123
10	Slagging Characteristics during Combustion of Corn Stovers with and without Kaolin and Calcite. Energy & Fuels, 2008, 22, 3465-3470.	2.5	115
11	Characterization of Inorganic Particulate Matter from Residential Combustion of Pelletized Biomass Fuels. Energy & Fuels, 2004, 18, 338-348.	2.5	112
12	Influence of fuel ash composition on high temperature aerosol formation in fixed bed combustion of woody biomass pellets. Fuel, 2007, 86, 181-193.	3.4	104
13	Effect of raw material composition in woody biomass pellets on combustion characteristics. Biomass and Bioenergy, 2007, 31, 66-72.	2.9	97
14	Ash transformations in pulverised fuel co-combustion of straw and woody biomass. Fuel Processing Technology, 2013, 105, 52-58.	3.7	93
15	Bed Agglomeration Characteristics in Fluidized-Bed Combustion of Biomass Fuels Using Olivine as Bed Material. Energy & Fuels, 2012, 26, 4550-4559.	2.5	91
16	A New Method for Quantification of Fluidized Bed Agglomeration Tendencies:Â A Sensitivity Analysis. Energy & Fuels, 1998, 12, 90-94.	2.5	79
17	Effect of Kaolin and Limestone Addition on Slag Formation during Combustion of Wood Fuels. Energy & Fuels, 2004, 18, 1370-1376.	2.5	64
18	Bed Agglomeration Characteristics of Wood-Derived Fuels in FBC. Energy & Fuels, 2006, 20, 818-824.	2.5	63

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19	Influence of Phosphorus on Alkali Distribution during Combustion of Logging Residues and Wheat Straw in a Bench-Scale Fluidized Bed. Energy & Fuels, 2012, 26, 3012-3023.	2.5	63
20	Bed Agglomeration Characteristics of Biomass Fuels Using Blast-Furnace Slag as Bed Material. Energy & Fuels, 2004, 18, 1187-1193.	2.5	62
21	Effects of Non-Quartz Minerals in Natural Bed Sand on Agglomeration Characteristics during Fluidized Bed Combustion of Biomass Fuels. Energy & Fuels, 2007, 21, 2663-2668.	2.5	62
22	Mechanism of Layer Formation on Olivine Bed Particles in Industrial-Scale Dual Fluid Bed Gasification of Wood. Energy & Fuels, 2016, 30, 7410-7418.	2.5	59
23	High-temperature aerosol formation in wood pellets flames: Spatially resolved measurements. Combustion and Flame, 2006, 147, 278-293.	2.8	58
24	Slagging Characteristics during Combustion of Woody Biomass Pellets Made from a Range of Different Forestry Assortments. Energy & Fuels, 2010, 24, 3456-3461.	2.5	57
25	Effects on Ash Chemistry when Co-firing Municipal Sewage Sludge and Wheat Straw in a Fluidized Bed: Influence on the Ash Chemistry by Fuel Mixing. Energy & Fuels, 2013, 27, 5725-5732.	2.5	52
26	Slagging in Fixed-Bed Combustion of Phosphorus-Poor Biomass: Critical Ash-Forming Processes and Compositions. Energy & Fuels, 2015, 29, 894-908.	2.5	45
27	Alkali retention/separation during bagasse gasification: a comparison between a fluidised bed and a cyclone gasifier. Biomass and Bioenergy, 2001, 21, 461-476.	2.9	44
28	Fluidized-Bed Combustion of Mixtures of Rapeseed Cake and Bark: The Resulting Bed Agglomeration Characteristics. Energy & Fuels, 2012, 26, 2028-2037.	2.5	43
29	Predicting Slagging Tendencies for Biomass Pellets Fired in Residential Appliances: A Comparison of Different Prediction Methods. Energy & Fuels, 2008, 22, 3680-3686.	2.5	42
30	Reduced Bed Agglomeration by Co-combustion Biomass with Peat Fuels in a Fluidized Bed. Energy & Fuels, 2005, 19, 2273-2278.	2.5	40
31	Mechanism of Quartz Bed Particle Layer Formation in Fluidized Bed Combustion of Wood-Derived Fuels. Energy & Fuels, 2016, 30, 2227-2232.	2.5	40
32	Reed canary-grass ash composition and its melting behaviour during combustion. Fuel, 2001, 80, 1391-1398.	3.4	39
33	Thermochemical characteristics of sugar cane bagasse pellets. Fuel, 2005, 84, 569-575.	3.4	39
34	Time Dependence of Bed Particle Layer Formation in Fluidized Quartz Bed Combustion of Wood-Derived Fuels. Energy & Fuels, 2014, 28, 3841-3848.	2.5	38
35	Deposit build-up and ash behavior in dual fluid bed steam gasification of logging residues in an industrial power plant. Fuel Processing Technology, 2015, 139, 33-41.	3.7	36
36	Ash Transformations during Combustion of Meat-, Bonemeal, and RDF in a (bench-scale) Fluidized Bed Combustor. Energy & Fuels, 2003, 17, 1153-1159.	2.5	35

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37	Combustion and fuel characterisation of wheat distillers dried grain with solubles (DDGS) and possible combustion applications. Fuel, 2012, 102, 208-220.	3.4	34
38	A review on bed material particle layer formation and its positive influence on the performance of thermo-chemical biomass conversion in fluidized beds. Fuel, 2021, 291, 120214.	3.4	33
39	Residential Combustion Performance of Pelletized Hydrolysis Residue from Lignocellulosic Ethanol Production. Energy & Fuels, 2006, 20, 1298-1304.	2.5	32
40	Ash Transformation during Single-Pellet Combustion of Agricultural Biomass with a Focus on Potassium and Phosphorus. Energy & Fuels, 2021, 35, 1449-1464.	2.5	32
41	Deposit Formation in a Grate-Kiln Plant for Iron-Ore Pellet Production. Part 1: Characterization of Process Gas Particles. Energy & Fuels, 2013, 27, 6159-6170.	2.5	31
42	Slag Formation during Oxygen-Blown Entrained-Flow Gasification of Stem Wood. Energy & Fuels, 2014, 28, 6941-6952.	2.5	31
43	Ash transformation during single-pellet gasification of agricultural biomass with focus on potassium and phosphorus. Fuel Processing Technology, 2021, 217, 106805.	3.7	31
44	Trace Element Enrichment and Behavior in Wood Pellet Production and Combustion Processes. Energy & Fuels, 2006, 20, 993-1000.	2.5	30
45	Combustion of Biosolids in a Bubbling Fluidized Bed, Part 1: Main Ash-Forming Elements and Ash Distribution with a Focus on Phosphorus. Energy & Fuels, 2014, 28, 1183-1190.	2.5	29
46	Influence of Peat Ash Composition on Particle Emissions and Slag Formation in Biomass Grate Co-combustion. Energy & Fuels, 2014, 28, 3403-3411.	2.5	28
47	Thermal Stability of Bed Particle Layers on Naturally Occurring Minerals from Dual Fluid Bed Gasification of Woody Biomass. Energy & Fuels, 2016, 30, 8277-8285.	2.5	28
48	Layer formation mechanism of K-feldspar in bubbling fluidized bed combustion of phosphorus-lean and phosphorus-rich residual biomass. Applied Energy, 2019, 248, 545-554.	5.1	27
49	Fate of Phosphorus in Fixed Bed Combustion of Biomass and Sewage Sludge. Energy & Fuels, 2020, 34, 4587-4594.	2.5	27
50	Mechanisms Behind the Positive Effects on Bed Agglomeration and Deposit Formation Combusting Forest Residue with Peat Additives in Fluidized Beds. Energy & Fuels, 2009, 23, 4245-4253.	2.5	26
51	Thermochemical Equilibrium Study of Slag Formation during Pressurized Entrained-Flow Gasification of Woody Biomass. Energy & Fuels, 2015, 29, 4399-4406.	2.5	25
52	Time-Dependent Layer Formation on K-Feldspar Bed Particles during Fluidized Bed Combustion of Woody Fuels. Energy & Fuels, 2017, 31, 12848-12856.	2.5	25
53	Thermochemical equilibrium study of ash transformation during combustion and gasification of sewage sludge mixtures with agricultural residues with focus on the phosphorus speciation. Biomass Conversion and Biorefinery, 2021, 11, 57-68.	2.9	25
54	Design Changes in a Fixed-Bed Pellet Combustion Device: Effects of Temperature and Residence Time on Emission Performance. Energy & Fuels, 2010, 24, 1333-1340.	2.5	24

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55	Deposit Formation in a Grateâ€“Kiln Plant for Iron-Ore Pellet Production. Part 2: Characterization of Deposits. Energy & Fuels, 2013, 27, 6171-6184.	2.5	24
56	Characterization of Reactor Ash Deposits from Pilot-Scale Pressurized Entrained-Flow Gasification of Woody Biomass. Energy & Fuels, 2013, 27, 6801-6814.	2.5	22
57	Fuel Indices for Estimation of Slagging of Phosphorus-Poor Biomass in Fixed Bed Combustion. Energy & Fuels, 2017, 31, 904-915.	2.5	22
58	Layer formation on K-feldspar in fluidized bed combustion and gasification of bark and chicken manure. Biomass and Bioenergy, 2019, 127, 105251.	2.9	21
59	Layer Formation on Feldspar Bed Particles during Indirect Gasification of Wood. 1. K-Feldspar. Energy & Fuels, 2019, 33, 7321-7332.	2.5	19
60	Fate of Phosphorus in Fluidized Bed Cocombustion of Chicken Litter with Wheat Straw and Bark Residues. Energy & Fuels, 2020, 34, 1822-1829.	2.5	19
61	Layer Formation on Feldspar Bed Particles during Indirect Gasification of Wood. 2. Na-Feldspar. Energy & Fuels, 2019, 33, 7333-7346.	2.5	18
62	Time-Dependent Crack Layer Formation in Quartz Bed Particles during Fluidized Bed Combustion of Woody Biomass. Energy & Fuels, 2017, 31, 1672-1677.	2.5	17
63	Single Pellet Combustion of Sewage Sludge and Agricultural Residues with a Focus on Phosphorus. Energy & Fuels, 2021, 35, 10009-10022.	2.5	17
64	Ash transformation during single-pellet gasification of sewage sludge and mixtures with agricultural residues with a focus on phosphorus. Fuel Processing Technology, 2022, 227, 107102.	3.7	17
65	Potassium Retention in Updraft Gasification of Wood. Energy & Fuels, 2013, 27, 6718-6724.	2.5	16
66	Agglomeration and Defluidization in FBC of Biomass Fuels â€" Mechanisms and Measures for Prevention. , 1996, , 353-366.		16
67	Ash Formation in Pilot-Scale Pressurized Entrained-Flow Gasification of Bark and a Bark/Peat Mixture. Energy & Fuels, 2016, 30, 10543-10554.	2.5	14
68	The effect of disintegrated iron-ore pellet dust on deposit formation in a pilot-scale pulverized coal combustion furnace. Part I: Characterization of process gas particles and deposits. Fuel Processing Technology, 2018, 177, 283-298.	3.7	14
69	Systematic Evaluation of the Fate of Phosphorus in Fluidized Bed Combustion of Biomass and Sewage Sludge. Energy & Fuels, 2020, 34, 3984-3995.	2.5	14
70	Waste Gypsum Board and Ash-Related Problems during Combustion of Biomass. 1. Fluidized Bed. Energy & Fuels, 2015, 29, 877-893.	2.5	13
71	The effect of disintegrated iron-ore pellet dust on deposit formation in a pilot-scale pulverized coal combustion furnace. Part II: Thermochemical equilibrium calculations and viscosity estimations. Fuel Processing Technology, 2018, 180, 189-206.	3.7	13
72	Influence of Peat Addition to Woody Biomass Pellets on Slagging Characteristics during Combustion. Energy & Fuels, 2013, 27, 3997-4006.	2.5	12

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73	Prediction of slag related problems during fixed bed combustion of biomass by application of a multivariate statistical approach on fuel properties and burner technology. Biomass and Bioenergy, 2020, 137, 105557.	2.9	12
74	Fate of phosphorus and potassium in single-pellet thermal conversion of forest residues with a focus on the char composition. Biomass and Bioenergy, 2021, 150, 106124.	2.9	10
75	Ash Transformation during Fixed-Bed Combustion of Agricultural Biomass with a Focus on Potassium and Phosphorus. Energy & Fuels, 2022, 36, 3640-3653.	2.5	10
76	Calcium oxide as an additive for both conservation and improvement of the combustion properties of energy grass: A preliminary study. Biomass and Bioenergy, 2017, 99, 1-10.	2.9	9
77	Techno-Economic Analysis of Scenarios on Energy and Phosphorus Recovery from Mono- and Co-Combustion of Municipal Sewage Sludge. Sustainability, 2022, 14, 2603.	1.6	9
78	Waste Gypsum Board and Ash-Related Problems during Combustion of Biomass. 2. Fixed Bed. Energy & Fuels, 2016, 30, 10705-10713.	2.5	8
79	Reduction of Alkali Release by Two Fuel Additives at Different Bed Temperatures during Grate Combustion of Woody Biomass. Energy & Fuels, 2019, 33, 11041-11048.	2.5	8
80	New Experimental Evaluation Strategies Regarding Slag Prediction of Solid Biofuels in Pellet Boilers. Energy & Fuels, 2019, 33, 11985-11995.	2.5	8
81	Demonstrating Fuel Design To Reduce Particulate Emissions and Control Slagging in Industrial-Scale Grate Combustion of Woody Biomass. Energy & Fuels, 2020, 34, 2574-2583.	2.5	7
82	Thermodynamic Equilibrium Study on the Melting Tendency of the K-Ca-Mg-P-Si-O System with Relevance to Woody and Agricultural Biomass Ash Compositions. Energy & Fuels, 2022, 36, 7035-7051.	2.5	7
83	Leaching of metal(loid)s from ashes of spent sorbent and stabilisation effect of calcium-rich additives. Environmental Science and Pollution Research, 2020, 27, 29248-29256.	2.7	3
84	Traceability of bulk biomass: Application of radio frequency identification technology on a bulk pellet flow. Biomass and Bioenergy, 2018, 118, 149-153.	2.9	2
85	Summary of Recent Results Obtained from Using the Controlled Fluidised Bed Agglomeration Method. , 2002, , 259-270.		0