

# Guang-Qian Luo

## List of Publications by Year in descending order

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105  
papers

3,188  
citations

159585

30  
h-index

175258

52  
g-index

106  
all docs

106  
docs citations

106  
times ranked

2306  
citing authors

#	ARTICLE	IF	CITATIONS
1	Increasing oxygen functional groups of activated carbon with non-thermal plasma to enhance mercury removal efficiency for flue gases. <i>Chemical Engineering Journal</i> , 2015, 263, 1-8.	12.7	236
2	Effect of pyrolysis conditions on the char gasification with mixtures of CO <sub>2</sub> and H <sub>2</sub> O. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 2453-2460.	3.9	132
3	Efficient removal of elemental mercury by magnetic chlorinated biochars derived from co-pyrolysis of Fe(NO <sub>3</sub> ) <sub>3</sub> -laden wood and polyvinyl chloride waste. <i>Fuel</i> , 2019, 239, 982-990.	6.4	110
4	Synergistic effects and kinetics thermal behaviour of petroleum coke/biomass blends during H <sub>2</sub> O co-gasification. <i>Energy Conversion and Management</i> , 2014, 79, 355-366.	9.2	104
5	Comparison of CaO's effect on the fate of heavy metals during thermal treatment of two typical types of MSWI fly ashes in China. <i>Chemosphere</i> , 2013, 93, 590-596.	8.2	102
6	The fate of sulfur during rapid pyrolysis of scrap tires. <i>Chemosphere</i> , 2014, 97, 102-107.	8.2	99
7	Emission characteristics of nitrogen- and sulfur-containing odorous compounds during different sewage sludge chemical conditioning processes. <i>Journal of Hazardous Materials</i> , 2012, 235-236, 298-306.	12.4	93
8	Identifying modes of occurrence of mercury in coal by temperature programmed pyrolysis. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 2763-2769.	3.9	91
9	Using the Novel Method of Nonthermal Plasma To Add Cl Active Sites on Activated Carbon for Removal of Mercury from Flue Gas. <i>Environmental Science &amp; Technology</i> , 2016, 50, 11837-11843.	10.0	87
10	CO <sub>2</sub> co-gasification of lower sulphur petroleum coke and sugar cane bagasse via TG-FTIR analysis technique. <i>Bioresource Technology</i> , 2013, 136, 595-603.	9.6	78
11	Chlorine-Char composite synthesized by co-pyrolysis of biomass wastes and polyvinyl chloride for elemental mercury removal. <i>Fuel</i> , 2016, 183, 73-79.	6.4	76
12	Adsorption and catalytic oxidation of elemental mercury over regenerable magnetic Fe Ce mixed oxides modified by non-thermal plasma treatment. <i>Chemical Engineering Journal</i> , 2019, 358, 1454-1463.	12.7	76
13	Deep study on effects of activated carbon's oxygen functional groups for elemental mercury adsorption using temperature programmed desorption method. <i>Fuel</i> , 2017, 200, 100-106.	6.4	74
14	Carbon Nanotube-Silver Composite for Mercury Capture and Analysis. <i>Energy &amp; Fuels</i> , 2010, 24, 419-426.	5.1	71
15	Surface modification of phosphoric acid activated carbon by using non-thermal plasma for enhancement of Cu(II) adsorption from aqueous solutions. <i>Separation and Purification Technology</i> , 2018, 197, 156-169.	7.9	70
16	Elemental mercury adsorption and regeneration performance of sorbents FeMnO <sub>x</sub> enhanced via non-thermal plasma. <i>Chemical Engineering Journal</i> , 2017, 309, 503-512.	12.7	69
17	Kinetic analyses and synergistic effects of CO <sub>2</sub> co-gasification of low sulphur petroleum coke and biomass wastes. <i>Bioresource Technology</i> , 2018, 267, 54-62.	9.6	65
18	A gas-pressurized torrefaction method for biomass wastes. <i>Energy Conversion and Management</i> , 2018, 173, 29-36.	9.2	65

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19	Fate of chromium during thermal treatment of municipal solid waste incineration (MSWI) fly ash. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 2795-2801.	3.9	60
20	Pyrolysis kinetics of biomasses pretreated by gas-pressurized torrefaction. <i>Energy Conversion and Management</i> , 2019, 182, 117-125.	9.2	52
21	Hg occurrence in coal and its removal before coal utilization. <i>Fuel</i> , 2013, 104, 70-76.	6.4	49
22	Enhancement of hydrogen production in steam gasification of sewage sludge by reusing the calcium in lime-conditioned sludge. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 1332-1341.	7.1	48
23	Development of waste-derived sorbents from biomass and brominated flame retarded plastic for elemental mercury removal from coal-fired flue gas. <i>Chemical Engineering Journal</i> , 2018, 350, 911-919.	12.7	48
24	Natural ferruginous manganese ore for efficient immobilization of elemental mercury from coal combustion flue gas. <i>Fuel</i> , 2021, 283, 118946.	6.4	45
25	Using H <sub>2</sub> S plasma to modify activated carbon for elemental mercury removal. <i>Fuel</i> , 2019, 254, 115549.	6.4	44
26	Cost-effective sulfurized sorbents derived from one-step pyrolysis of wood and scrap tire for elemental mercury removal from flue gas. <i>Fuel</i> , 2021, 285, 119221.	6.4	40
27	A kinetic study on char oxidation in mixtures of O <sub>2</sub> , CO <sub>2</sub> and H <sub>2</sub> O. <i>Fuel Processing Technology</i> , 2018, 179, 250-257.	7.2	34
28	Modeling Study of Selenium Migration Behavior in Wet Flue Gas Desulfurization Spray Towers. <i>Environmental Science &amp; Technology</i> , 2020, 54, 16128-16137.	10.0	34
29	Effects of sulfur on lead partitioning during sludge incineration based on experiments and thermodynamic calculations. <i>Waste Management</i> , 2015, 38, 336-348.	7.4	32
30	Kinetics, thermodynamics and synergistic effects analyses of petroleum coke and biomass wastes during H <sub>2</sub> O co-gasification. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 24502-24517.	7.1	31
31	Investigations of the structure and thermal kinetic analysis of sugarcane bagasse char during non-isothermal CO <sub>2</sub> gasification. <i>Journal of Analytical and Applied Pyrolysis</i> , 2014, 107, 107-115.	5.5	30
32	Experiment and Kinetic Study of Elemental Mercury Adsorption over a Novel Chlorinated Sorbent Derived from Coal and Waste Polyvinyl Chloride. <i>Energy &amp; Fuels</i> , 2016, 30, 10635-10642.	5.1	30
33	Experimental and Modeling Study of Char Gasification with Mixtures of CO <sub>2</sub> and H <sub>2</sub> O. <i>Energy &amp; Fuels</i> , 2016, 30, 1628-1635.	5.1	29
34	Gas-pressurized torrefaction of biomass wastes: Roles of pressure and secondary reactions. <i>Bioresource Technology</i> , 2020, 313, 123640.	9.6	29
35	Selenium migration behaviors in wet flue gas desulfurization slurry and an in-situ treatment approach. <i>Chemical Engineering Journal</i> , 2020, 385, 123891.	12.7	28
36	Mercury stability of byproducts from wet flue gas desulfurization devices. <i>Fuel</i> , 2016, 186, 215-221.	6.4	27

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37	Gas-pressurized torrefaction of biomass wastes: The optimization of pressurization condition and the pyrolysis of torrefied biomass. <i>Bioresource Technology</i> , 2021, 319, 124216.	9.6	27
38	Gas-pressurized torrefaction of biomass wastes: Co-gasification of gas-pressurized torrefied biomass with coal. <i>Bioresource Technology</i> , 2021, 321, 124505.	9.6	26
39	Preparation of fly ash adsorbents utilizing non-thermal plasma to add S active sites for HgO removal from flue gas. <i>Fuel</i> , 2020, 266, 116936.	6.4	24
40	Kinetic Study on Coal Char Combustion in a Microfluidized Bed. <i>Energy &amp; Fuels</i> , 2017, 31, 3243-3252.	5.1	23
41	Homogeneous and heterogeneous contributions of CO <sub>2</sub> and recycled NO to NO emission difference between air and oxy-coal combustion. <i>Fuel</i> , 2016, 163, 1-7.	6.4	21
42	Degradative solvent extraction of low-rank coals by the mixture of low molecular weight extract and solvent as recycled solvent. <i>Fuel Processing Technology</i> , 2018, 173, 48-55.	7.2	21
43	Facile synthesis of phosphorus-doped porous biochars for efficient removal of elemental mercury from coal combustion flue gas. <i>Chemical Engineering Journal</i> , 2022, 432, 134440.	12.7	21
44	Kinetic study on in-situ and cooling char combustion in a two-step reaction analyzer. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 2147-2154.	3.9	20
45	Effect of different sulfides on cadmium distribution during sludge combustion based on experimental and thermodynamic calculation approaches. <i>Environmental Science and Pollution Research</i> , 2015, 22, 1113-1126.	5.3	19
46	Temperature Effect on Central-Mode Particulate Matter Formation in Combustion of Coals with Different Mineral Compositions. <i>Energy &amp; Fuels</i> , 2015, 29, 5245-5252.	5.1	19
47	Steam gasification behavior during coal combustion and CaO regeneration in O <sub>2</sub> /CO <sub>2</sub> /steam atmosphere. <i>Fuel</i> , 2016, 184, 409-417.	6.4	19
48	Preparation of activated carbon nanofibers using degradative solvent extraction products obtained from low-rank coal and their utilization in supercapacitors. <i>RSC Advances</i> , 2020, 10, 8172-8180.	3.6	19
49	Transformation of Organically Bound Chromium during Oxy-coal Combustion: The Influence of Steam and Mineral. <i>Energy &amp; Fuels</i> , 2018, 32, 1992-1998.	5.1	18
50	Gas-pressurized torrefaction of biomass wastes: The effect of varied pressure on pyrolysis kinetics and mechanism of torrefied biomass. <i>Fuel</i> , 2020, 276, 118132.	6.4	18
51	Preparation of CeO <sub>2</sub> /CaO with Anti-sintering for Efficient Capture of As <sub>2</sub> O <sub>3</sub> from Flue Gas at a High Temperature. <i>Energy &amp; Fuels</i> , 2021, 35, 20197-20205.	5.1	18
52	Acceleration of the reaction of H <sub>2</sub> S and SO <sub>2</sub> by non-thermal plasma to improve the mercury adsorption performance of activated carbon. <i>Chemical Engineering Journal</i> , 2021, 423, 130144.	12.7	17
53	Enhanced mercury removal performance of Cu-Fe binary oxide sorbents modified by non-thermal plasma. <i>Chemical Engineering Journal</i> , 2021, 425, 131851.	12.7	17
54	Study on the effects of carrier and modifier on mercury adsorption behavior over halides modified sorbents using temperature programmed desorption method. <i>Fuel Processing Technology</i> , 2018, 178, 293-300.	7.2	16

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55	Effect of CO <sub>2</sub> and H <sub>2</sub> O on Char Properties. Part 1: Pyrolysis Char Structure and Reactivity. <i>Energy &amp; Fuels</i> , 2020, 34, 4243-4250.	5.1	16
56	Theoretical research on role of sulfur allotropes on activated carbon surface in adsorbing elemental mercury. <i>Chemical Engineering Journal</i> , 2021, 404, 126639.	12.7	16
57	Yield prediction of "Thermal-dissolution based carbon enrichment" treatment on biomass wastes through coupled model of artificial neural network and AdaBoost. <i>Bioresource Technology</i> , 2022, 343, 126083.	9.6	16
58	Microscopic Spherical $\gamma$ -Fe <sub>2</sub> O <sub>3</sub> for Highly Efficient Gaseous Arsenic Capture in Simulated Flue Gas Under a Wide Temperature Range. <i>Energy &amp; Fuels</i> , 2021, 35, 19581-19591.	5.1	16
59	Deactivation mechanism of KCl and K <sub>2</sub> SO <sub>4</sub> poisoned V <sub>2</sub> O <sub>5</sub> /WO <sub>3</sub> -TiO <sub>2</sub> catalyst on gaseous elemental mercury oxidation. <i>Fuel</i> , 2020, 278, 118245.	6.4	15
60	Degradative solvent extraction of demineralized and ion-exchanged low-rank coals. <i>Journal of Fuel Chemistry and Technology</i> , 2014, 42, 897-904.	2.0	14
61	High-Efficiency CaO-Based Sorbent Modified by Aluminate Cement and Organic Fiber Through Wet Mixing Method. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 22040-22047.	3.7	14
62	Particulate matter filtration of the flue gas from iron-ore sintering operations using a magnetically stabilized fluidized bed. <i>Powder Technology</i> , 2019, 342, 335-340.	4.2	14
63	Fate of chromium with the presence of HCl and steam during oxy-coal combustion: Quantum chemistry and experimental study. <i>Journal of Hazardous Materials</i> , 2021, 412, 125218.	12.4	14
64	Study on the elemental mercury removal performance of co-pyrolyzed Cl-loading activated carbon and the formation mechanism of C-Cl functional groups. <i>Fuel</i> , 2022, 322, 124229.	6.4	14
65	Limestone Decomposition in an O <sub>2</sub> /CO <sub>2</sub> /Steam Atmosphere Integrated with Coal Combustion. <i>Energy &amp; Fuels</i> , 2016, 30, 5092-5100.	5.1	13
66	Experiment study on mercury migration across wet flue gas desulfurization slurry under oxy-coal combustion atmosphere. <i>Fuel</i> , 2016, 181, 1184-1190.	6.4	13
67	CFD simulation design and optimization of a novel zigzag wave-plate mist eliminator with perforated plate. <i>Applied Thermal Engineering</i> , 2021, 184, 116212.	6.0	13
68	Removal of mercury from flue gas using sewage sludge-based adsorbents. <i>Journal of Material Cycles and Waste Management</i> , 2014, 16, 101-107.	3.0	12
69	Pretreatment of Petroleum Coke To Enhance the Reactivity of Catalytic Gasification in Fluidized Beds. <i>Energy &amp; Fuels</i> , 2018, 32, 8115-8120.	5.1	12
70	Potential hazards of novel waste-derived sorbents for efficient removal of mercury from coal combustion flue gas. <i>Journal of Hazardous Materials</i> , 2021, 412, 125226.	12.4	12
71	Modeling and Kinetic Study of Degradative Solvent Extraction of Biomass Wastes. <i>Energy &amp; Fuels</i> , 2017, 31, 5097-5103.	5.1	11
72	Removal of elemental mercury from coal combustion flue gas using bentonite modified with Ce-Fe binary oxides. <i>Applied Surface Science</i> , 2022, 590, 153090.	6.1	11

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73	Partitioning behavior of mercury during coal combustion: the influence of low-NO <sub>x</sub> burners and operation load of boiler. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2009, 4, 480-486.	1.5	10
74	An updated acid dew point temperature estimation method for air-firing and oxy-fuel combustion processes. <i>Fuel Processing Technology</i> , 2016, 154, 204-209.	7.2	10
75	Influence of Hg occurrence in coal on accuracy of Hg direct measurement based on thermal decomposition. <i>International Journal of Coal Geology</i> , 2017, 170, 14-18.	5.0	10
76	Mercury stable isotope fractionation during gaseous elemental mercury adsorption onto coal fly ash particles: Experimental and field observations. <i>Journal of Hazardous Materials</i> , 2021, 405, 124280.	12.4	10
77	Gas-pressurized torrefaction of biomass wastes: Self-promoted deoxygenation of rice straw at low temperature. <i>Fuel</i> , 2022, 308, 122029.	6.4	10
78	Chemical Looping Combustion Pretreatment of Fuel Gas for a Novel Mercury Continuous Emissions Monitor by Cold Vapor Atomic Absorption Spectrometry. <i>Energy &amp; Fuels</i> , 2014, 28, 192-198.	5.1	9
79	Influence of low pressure on mercury removal from coals via mild pyrolysis. <i>Applied Thermal Engineering</i> , 2017, 113, 1250-1255.	6.0	9
80	Surface CO/CO <sub>2</sub> ratio of char combustion measured by thermogravimetry and differential scanning calorimetry. <i>Fuel</i> , 2018, 233, 480-485.	6.4	9
81	Theoretical research on reaction of solid sulfur allotropes with elemental mercury. <i>Chemical Engineering Journal</i> , 2021, 407, 127113.	12.7	9
82	Kinetic Study of Coal Char Thermal Deactivation. <i>Energy &amp; Fuels</i> , 2019, 33, 11959-11967.	5.1	8
83	Interaction between low-rank coal and biomass during degradative solvent extraction. <i>Journal of Fuel Chemistry and Technology</i> , 2019, 47, 14-22.	2.0	8
84	Theoretical research on mercury-laden halogenated activated carbon adsorbent bonding nature. <i>Chemical Engineering Journal</i> , 2022, 428, 131076.	12.7	8
85	Pilot-scale study of volatilization behavior of Hg, Se, As, Cl, S during decoupled conversion of coal. <i>Fuel</i> , 2013, 112, 704-709.	6.4	7
86	Effect of CO <sub>2</sub> and H <sub>2</sub> O on Char Properties. Part 2: <i>In Situ</i> and <i>Ex Situ</i> Char in Oxy-Steam Combustion. <i>Energy &amp; Fuels</i> , 2020, 34, 7554-7563.	5.1	7
87	Surface modification of fly ash by non-thermal air plasma for elemental mercury removal from coal-fired flue gas. <i>Environmental Technology (United Kingdom)</i> , 2021, 42, 306-317.	2.2	7
88	Insight into mercury-laden activated carbon adsorbent product bonding nature by DFT calculations. <i>Chemical Engineering Journal</i> , 2022, 433, 134461.	12.7	7
89	Investigation of the anode reactions in solid oxide electrolyte based carbon fuel cells. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 10264-10274.	7.1	6
90	Rod-Shaped Bi <sub>2</sub> S <sub>3</sub> Supported on Flaky Carbon Nitride for Effective Removal of Elemental Mercury in Flue Gas. <i>Energy &amp; Fuels</i> , 2021, 35, 14634-14646.	5.1	6

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91	Investigation of the anode reactions in SO-DCFCs fueled by Snâ€‘C mixture fuels. Proceedings of the Combustion Institute, 2017, 36, 4435-4442.	3.9	5
92	â€‘Thermal-dissolution based carbon enrichmentâ€‘treatment of biomass wastes: Mechanism study of biomass pyrolysis in a highly-dispersed medium. Energy Conversion and Management, 2021, 238, 114151.	9.2	5
93	Effect of Coal Combustion on the Reactivity of a CaO-Based Sorbent for CO <sub>2</sub> Capture. Energy & Fuels, 2016, 30, 7571-7578.	5.1	4
94	Kinetic Study on Continuous Sampling of Coal Char from a Micro Fluidized Bed. ACS Omega, 2021, 6, 9086-9094.	3.5	4
95	Simultaneous catalytic oxidation of nitric oxide and elemental mercury over Cu-Fe binary oxide treated by oxygen non-thermal plasma. Fuel, 2022, 320, 123895.	6.4	4
96	â€‘Thermal-dissolution based carbon enrichmentâ€‘treatment of biomass: Modeling and kinetic study via combined lumped reaction model and machine learning algorithm. Fuel, 2022, 324, 124701.	6.4	4
97	Characteristics of "Three Zones" during Underground Coal Gasification. Advanced Materials Research, 2012, 524-527, 56-62.	0.3	3
98	Determination of the Apparent Carbon Oxidation Reaction Order by a Microfluidized Bed and Its Application to Kinetic Models. Energy & Fuels, 2016, 30, 10868-10874.	5.1	3
99	Influence of different distributions of Ca-mineral in coal on trimodal particulate matter formation during combustion. Journal of Fuel Chemistry and Technology, 2016, 44, 273-278.	2.0	3
100	Characterization of in-situ and cooling char from ten typical Chinese coals. Combustion and Flame, 2022, 238, 111884.	5.2	3
101	Effect of CO <sub>2</sub> and H <sub>2</sub> O on Char Properties. Part 3: Semi-Char from Continuous Sampling in a Microfluidized Bed. Energy & Fuels, 2021, 35, 13124-13132.	5.1	2
102	Boosted Thermal Storage Performance of LiOHâˆ‘H <sub>2</sub> O by Carbon Nanotubes Isolated Multilayered Graphene Oxide Frames. Advances in Materials Science and Engineering, 2022, 2022, 1-11.	1.8	1
103	Removal of Tar during Pine Sawdust Fast Pyrolysis with Catalysts. Advanced Materials Research, 0, 512-515, 449-454.	0.3	0
104	Gas-Phase Mercury Removal by Modified Activated Carbons Treated with Ar-O <sub>2</sub> Non-Thermal Plasma under Different O <sub>2</sub> Concentrations. International Journal of Chemical Reactor Engineering, 2019, 17, .	1.1	0
105	Theoretical research on mercury-laden halogenated activated carbon adsorbent product stability. The Proceedings of the International Conference on Power Engineering (ICOPE), 2021, 2021.15, 2021-0167.	0.0	0