Shinji Kudo

List of Publications by Year
in descending order

98 papers	1,965 citations	279701 23 h-index	330025 37 g-index
100 all docs	100 docs citations	100 times ranked	2089 citing authors

#	Article	IF	Citations
1	Estimation of Enthalpy of Bio-Oil Vapor and Heat Required for Pyrolysis of Biomass. Energy & Fuels, 2013, 27, 2675-2686.	2.5	82
2	Production of Levoglucosenone and Dihydrolevoglucosenone by Catalytic Reforming of Volatiles from Cellulose Pyrolysis Using Supported Ionic Liquid Phase. ACS Sustainable Chemistry and Engineering, 2017, 5, 1132-1140.	3.2	78
3	Efficient levoglucosenone production by catalytic pyrolysis of cellulose mixed with ionic liquid. Green Chemistry, 2011, 13, 3306.	4.6	77
4	Simultaneous Steam Reforming of Tar and Steam Gasification of Char from the Pyrolysis of Potassium-Loaded Woody Biomass. Energy & Fuels, 2012, 26, 199-208.	2.5	77
5	Catalytic effects of Na and Ca from inexpensive materials on in-situ steam gasification of char from rapid pyrolysis of low rank coal in a drop-tube reactor. Fuel Processing Technology, 2013, 113, 1-7.	3.7	76
6	Detailed chemical kinetic modelling of vapour-phase cracking of multi-component molecular mixtures derived from the fast pyrolysis of cellulose. Fuel, 2013, 103, 141-150.	3.4	68
7	Rapid pyrolysis of brown coal in a drop-tube reactor with co-feeding of char as a promoter of in situ tar reforming. Fuel, 2013, 112, 681-686.	3.4	58
8	Low-Temperature Gasification of Biomass and Lignite: Consideration of Key Thermochemical Phenomena, Rearrangement of Reactions, and Reactor Configuration. Energy & Fuels, 2014, 28, 4-21.	2.5	51
9	Detailed Chemical Kinetic Modeling of Vapor-Phase Reactions of Volatiles Derived from Fast Pyrolysis of Lignin. Industrial & Engineering Chemistry Research, 2015, 54, 6855-6864.	1.8	50
10	Catalytic hydrogenolysis of kraft lignin to monomers at high yield in alkaline water. Green Chemistry, 2017, 19, 2636-2645.	4.6	49
11	An Overview of Metal Oxide Nanostructures. , 2018, , 19-57.		45
12	Leaching of Alkali and Alkaline Earth Metallic Species from Rice Husk with Bio-oil from Its Pyrolysis. Energy & Fuels, 2014, 28, 6459-6466.	2.5	42
13	High porous carbon with Cu/ZnO nanoparticles made by the pyrolysis of carbon material as a catalyst for steam reforming of methanol and dimethyl ether. Carbon, 2010, 48, 1186-1195.	5.4	41
14	Simultaneous Maximization of the Char Yield and Volatility of Oil from Biomass Pyrolysis. Energy & Fuels, 2013, 27, 247-254.	2.5	38
15	A mechanistic study on the reaction pathways leading to benzene and naphthalene in cellulose vapor phase cracking. Biomass and Bioenergy, 2014, 69, 144-154.	2.9	37
16	Kinetics and Mechanism of Steam Gasification of Char from Hydrothermally Treated Woody Biomass. Energy & Fuels, 2014, 28, 7133-7139.	2.5	35
17	Sulfonate Ionic Liquid as a Stable and Active Catalyst for Levoglucosenone Production from Saccharides via Catalytic Pyrolysis. Catalysts, 2013, 3, 757-773.	1.6	34
18	Clean Synthesis of 5-Hydroxymethylfurfural and Levulinic Acid by Aqueous Phase Conversion of Levoglucosenone over Solid Acid Catalysts. ACS Sustainable Chemistry and Engineering, 2019, 7, 5892-5899.	3.2	34

#	Article	IF	Citations
19	Preparation of Coke from Indonesian Lignites by a Sequence of Hydrothermal Treatment, Hot Briquetting, and Carbonization. Energy & Fuels, 2013, 27, 6607-6616.	2.5	31
20	Preparation of High-Strength Coke by Carbonization of Hot-Briquetted Victorian Brown Coal. Energy & Fuels, 2012, 26, 296-301.	2.5	30
21	Nano-sized nickel catalyst for deep hydrogenation of lignin monomers and first-principles insight into the catalyst preparation. Journal of Materials Chemistry A, 2017, 5, 3948-3965.	5.2	29
22	Selective Production of Light Oil by Biomass Pyrolysis with Feedstock-Mediated Recycling of Heavy Oil. Energy & Fuels, 2012, 26, 256-264.	2.5	27
23	Improvement of Pelletability of Woody Biomass by Torrefaction under Pressurized Steam. Energy & Fuels, 2019, 33, 11253-11262.	2.5	26
24	In-situ reforming of the volatiles from fast pyrolysis of ligno-cellulosic biomass over zeolite catalysts for aromatic compound production. Fuel Processing Technology, 2015, 136, 73-78.	3.7	25
25	Biochar-Assisted Water Electrolysis. Energy & Fuels, 2019, 33, 11246-11252.	2.5	24
26	Detailed Kinetic Analysis and Modeling of Steam Gasification of Char from Ca-Loaded Lignite. Energy & Fuels, 2013, 27, 6617-6631.	2.5	23
27	Coproduction of clean syngas and iron from woody biomass and natural goethite ore. Fuel, 2013, 103, 64-72.	3.4	23
28	Predicting molecular composition of primary product derived from fast pyrolysis of lignin with semi-detailed kinetic model. Fuel, 2018, 212, 515-522.	3.4	23
29	A new preparation method of Au/ferric oxide catalyst for low temperature CO oxidation. Chemical Engineering Science, 2010, 65, 214-219.	1.9	22
30	Catalytic Strategies for Levoglucosenone Production by Pyrolysis of Cellulose and Lignocellulosic Biomass. Energy & Fuels, 2021, 35, 9809-9824.	2.5	22
31	Detailed Analysis of Residual Volatiles in Chars from the Pyrolysis of Biomass and Lignite. Energy & Fuels, 2013, 27, 3209-3223.	2.5	21
32	Examination of Kinetics of Non-catalytic Steam Gasification of Biomass/Lignite Chars and Its Relationship with the Variation of the Pore Structure. Energy & Fuels, 2014, 28, 5902-5908.	2.5	21
33	Methane decomposition with a minimal catalyst: An optimization study with response surface methodology over Ni/SiO2 nanocatalyst. International Journal of Hydrogen Energy, 2020, 45, 14383-14395.	3.8	21
34	Catalytic Hydrothermal Reforming of Lignin in Aqueous Alkaline Medium. Energy & Fuels, 2014, 28, 76-85.	2.5	20
35	Experimental investigation of thermal decomposition of dihydroxybenzene isomers: Catechol, hydroquinone, and resorcinol. Journal of Analytical and Applied Pyrolysis, 2016, 120, 321-329.	2.6	19
36	Influence of ionic liquid type on porous carbon formation during the ionothermal pyrolysis of cellulose. Journal of Analytical and Applied Pyrolysis, 2020, 145, 104728.	2.6	19

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37	Sustainable Iron-Making Using Oxalic Acid: The Concept, A Brief Review of Key Reactions, and An Experimental Demonstration of the Iron-Making Process. ACS Sustainable Chemistry and Engineering, 2020, 8, 13292-13301.	3.2	19
38	Catalytic Hydrothermal Reforming of Jatropha Oil in Subcritical Water for the Production of Green Fuels: Characteristics of Reactions over Pt and Ni Catalysts. Energy & Fuels, 2013, 27, 4796-4803.	2.5	18
39	Preparation of Coke from Hydrothermally Treated Biomass in Sequence of Hot Briquetting and Carbonization. ISIJ International, 2014, 54, 2461-2469.	0.6	18
40	Predicting the temperature and reactant concentration profiles of reacting flow in the partial oxidation of hot coke oven gas using detailed chemistry and a one-dimensional flow model. Chemical Engineering Journal, 2015, 266, 82-90.	6.6	18
41	CO₂ Gasification of Sugar Cane Bagasse: Quantitative Understanding of Kinetics and Catalytic Roles of Inherent Metallic Species. Energy & Fuels, 2018, 32, 4255-4268.	2.5	18
42	Improvement of levoglucosenone selectivity in liquid phase conversion of cellulose-derived anhydrosugar over solid acid catalysts. Fuel Processing Technology, 2021, 212, 106625.	3.7	18
43	Modification of Reactivity and Strength of Formed Coke from Victorian Lignite by Leaching of Metallic Species. ISIJ International, 2015, 55, 765-774.	0.6	17
44	Two-step conversion of cellulose to levoglucosenone using updraft fixed bed pyrolyzer and catalytic reformer. Fuel Processing Technology, 2019, 191, 29-35.	3.7	17
45	Catalytic Hydrothermal Reforming of Water-Soluble Organics from the Pyrolysis of Biomass Using a Ni/Carbon Catalyst Impregnated with Pt. Energy & Fuels, 2012, 26, 67-74.	2.5	15
46	Steamâ€“Oxygen Gasification of Potassium-Loaded Lignite: Proof of Concept of Type IV Gasification. Energy & Fuels, 2016, 30, 1616-1627.	2.5	15
47	Kinetics and Mechanism of CO₂ Gasification of Chars from 11 Mongolian Lignites. Energy & Fuels, 2016, 30, 1636-1646.	2.5	15
48	Nanomaterials as Catalysts. , 2018, , 45-82.		15
49	Effect of SiO2 on loss of catalysis of inherent metallic species in CO2 gasification of coke from lignite. Carbon Resources Conversion, 2019, 2, 13-22.	3.2	15
50	Pyrolysis of Lignite with Internal Recycling and Conversion of Oil. Energy & Fuels, 2014, 28, 7285-7293.	2.5	14
51	Theoretical Study on the Kinetics of Thermal Decomposition of Guaiacol and Catechol. Journal of Physical Chemistry A, 2017, 121, 8495-8503.	1.1	14
52	Characteristic Properties of Lignite To Be Converted to High-Strength Coke by Hot Briquetting and Carbonization. Energy & Fuels, 2018, 32, 4364-4371.	2.5	14
53	Kinetic modeling of non-catalytic partial oxidation of nascent volatiles derived from fast pyrolysis of woody biomass with detailed chemistry. Fuel Processing Technology, 2015, 134, 159-167.	3.7	13
54	Characteristics of gas evolution profiles during coal pyrolysis and its relation with the variation of functional groups. International Journal of Coal Science and Technology, 2018, 5, 452-463.	2.7	13

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55	A CFD study on the reacting flow of partially combusting hot coke oven gas in a bench-scale reformer. Fuel, 2015, 159, 590-598.	3.4	12
56	Theoretical Study on Reaction Pathways Leading to CO and CO₂ in the Pyrolysis of Resorcinol. Journal of Physical Chemistry A, 2017, 121, 631-637.	1.1	11
57	Cleavage of lignin model compounds and lignin^{ox} using aqueous oxalic acid. Organic and Biomolecular Chemistry, 2019, 17, 7408-7415.	1.5	11
58	Selective Hydrodeoxygenation of Î³-Valerolactone over Silica-supported Rh-based Bimetallic Catalysts. Energy & Fuels, 2020, 34, 7190-7197.	2.5	11
59	Sequential Pyrolysis and Potassium-Catalyzed Steamâ€"Oxygen Gasification of Woody Biomass in a Continuous Two-Stage Reactor. Energy & Fuels, 2014, 28, 6407-6418.	2.5	10
60	Theoretical Study on Hydrogenolytic Cleavage of Intermonomer Linkages in Lignin. Journal of Physical Chemistry A, 2017, 121, 2868-2877.	1.1	10
61	Synthesis and Electrochemical Properties of Fe₃C-carbon Composite as an Anode Material for Lithium-ion Batteries. Electrochemistry, 2017, 85, 630-633.	0.6	10
62	Selective hydrogenation of levoglucosenone over Pd/C using formic acid as a hydrogen source. Journal of the Energy Institute, 2020, 93, 2505-2510.	2.7	10
63	Catalytic deep eutectic solvent for levoglucosenone production by pyrolysis of cellulose. Bioresource Technology, 2022, 344, 126323.	4.8	10
64	Pre-Reduction of Au/Iron Oxide Catalyst for Low-Temperature Water-Gas Shift Reaction Below 150 Â°C. Catalysts, 2011, 1, 175-190.	1.6	9
65	Conversion Characteristics of Aromatic Hydrocarbons in Simulated Gaseous Atmospheres in Reducing Section of Two-Stage Entrained-Flow Coal Gasifier in Air- and O₂/CO₂-Blown Modes. Energy & Fuels, 2013, 27, 1974-1981.	2.5	9
66	Preparation and Steam Gasification of Fe-Ion Exchanged Lignite Prepared with Iron Metal, Water, and Pressurized CO₂. Energy & Fuels, 2014, 28, 5623-5631.	2.5	9
67	Modeling of gas/particle flow in coal conversion with a drop tube reactor using a lumped kinetic model accounting volatilesâ€"char interaction. Fuel Processing Technology, 2015, 138, 588-594.	3.7	9
68	Bioâ€Based Chiral Amines via Azaâ€Michael Additions to (â€")â€Levoglucosenone Under Aqueous Conditions. European Journal of Organic Chemistry, 2018, 2018, 2028-2038.	1.2	9
69	Continuous monitoring of char surface activity toward benzene. Carbon Resources Conversion, 2019, 2, 43-50.	3.2	9
70	Chemical Structures and Primary Pyrolysis Characteristics of Lignins Obtained from Different Preparation Methods. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2014, 93, 986-994.	0.2	8
71	Computational Study on the Thermal Decomposition of Phenolâ€Type Monolignols. International Journal of Chemical Kinetics, 2018, 50, 304-316.	1.0	8
72	Production of High-strength Cokes from Non-/Slightly Caking Coals. Part I: Effects of Coal Pretreatment and Variables for Briquetting and Carbonization on Coke Properties. ISIJ International, 2019, 59, 1440-1448.	0.6	8

#	ARTICLE	IF	CITATIONS
73	Selective Production of Phenolic Monomers and Biochar by Pyrolysis of Lignin with Internal Recycling of Heavy Oil. Energy & Fuels, 2020, 34, 7183-7189.	2.5	8
74	Deep Delignification of Woody Biomass by Repeated Mild Alkaline Treatments with Pressurized O₂. ACS Omega, 2020, 5, 29168-29176.	1.6	8
75	Change in Catalytic Activity of Potassium during CO₂ Gasification of Char. Energy & Fuels, 2020, 34, 225-234.	2.5	7
76	Production of High-strength Cokes from Non- and Slightly Caking Coals. Part II: Application of Sequence of Fine Pulverization of Coal, Briquetting and Carbonization to Single Coals and Binary Blends. ISIJ International, 2019, 59, 1449-1456.	0.6	7
77	Staged Pyrolytic Conversion of Acid-Loaded Woody Biomass for Production of High-Strength Coke and Valorization of Volatiles. Energy & Fuels, 2022, 36, 6949-6958.	2.5	7
78	Quantitative Description of Catalysis of Inherent Metallic Species in Lignite Char during CO₂ Gasification. Energy & Fuels, 2019, 33, 5996-6007.	2.5	6
79	Jiangrine-like scaffolds from biorenewable platforms. Tetrahedron Letters, 2020, 61, 152538.	0.7	6
80	Dissolution of Iron Oxides Highly Loaded in Oxalic Acid Aqueous Solution for a Potential Application in Iron-Making. ISIJ International, 2022, 62, 2466-2475.	0.6	6
81	Leaching Char with Acidic Aqueous Phase from Biomass Pyrolysis: Removal of Alkali and Alkaline-Earth Metallic Species and Uptakes of Water-Soluble Organics. Energy & Fuels, 2021, 35, 12237-12251.	2.5	6
82	Theoretical Study on Elementary Reaction Steps in Thermal Decomposition Processes of Syringol-Type Monolignol Compounds. Journal of Physical Chemistry A, 2018, 122, 822-831.	1.1	5
83	Efficient Hydrogen Production from Methanol by Combining Micro Channel with Carbon Membrane Catalyst Loaded with Cu/Zn. Journal of Chemical Engineering of Japan, 2009, 42, 680-686.	0.3	5
84	The Distinctive Effects of Glucose-Derived Carbon on the Performance of Ni-Based Catalysts in Methane Dry Reforming. Catalysts, 2020, 10, 21.	1.6	5
85	Numerical Study on the Steam Reforming of Biomass Tar Using a Detailed Chemical Kinetic Model. Nihon Energi Gakkaishi/Journal of the Japan Institute of Energy, 2015, 94, 794-804.	0.2	4
86	Re-examination of Thermogravimetric Kinetic Analysis of Lignite Char Gasification. Energy & Fuels, 2019, 33, 10913-10922.	2.5	4
87	Toward Low-Temperature Coal Gasification: Experimental and Numerical Studies of Thermochemical Coal Conversion Considering the Interactions between Volatiles and Char Particles. KONA Powder and Particle Journal, 2017, 34, 70-79.	0.9	3
88	Sequential conversion of lignite in alkaline water by oxidative degradation, dissolution and catalytic gasification. Fuel, 2020, 278, 118329.	3.4	3
89	Current Situation and Future Scope of Biomass Gasification in Japan. Evergreen, 2017, 4, 24-29.	0.3	3
90	Hot-Compressed Water Treatment and Subsequent Binderless Hot Pressing for High-Strength Plate Preparation from Rice Husk. ACS Sustainable Chemistry and Engineering, 2022, 10, 1932-1942.	3.2	3

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91	Enhancing Reaction Selectivity by Intentional Control of Concentration Profile in Catalytic Microreactor. Journal of Chemical Engineering of Japan, 2010, 43, 63-69.	0.3	2
92	An approach for on-line analysis of multi-component volatiles from coal pyrolysis with Li + -attachment ionization mass spectrometry. Fuel Processing Technology, 2017, 158, 141-145.	3.7	2
93	Formation of <i>p</i>-Unsubstituted Phenols in Base-catalyzed Lignin Depolymerization. MATEC Web of Conferences, 2021, 333, 05006.	0.1	2
94	Fast Synthesis of Hydroxymethylfurfural from Levoglucosenone by Mixing with Sulphuric Acid and Heating in a Microtube Reactor. MATEC Web of Conferences, 2021, 333, 05005.	0.1	2
95	Process Development toward Efficient Charcoal Production from Biomass Using Moving Bed Pyrolyzer. Journal of the Society of Powder Technology, Japan, 2013, 50, 173-181.	0.0	1
96	Analysis of Primary Reactions in Biomass Oxidation with O₂ in Hot-Compressed Alkaline Water. ACS Omega, 2021, 6, 4236-4246.	1.6	1
97	Outstanding Reviewers for <i>Green Chemistry</i> in 2019. Green Chemistry, 2020, 22, 2627-2627.	4.6	0
98	The Antioxidant Activity of the Extracts from Disposition of the Waste Sawdust Substrate from Shiitake Mushroom (<i>Lentinula edodes</i>) Cultivation by the Two-step Hot/hot-compressed Water Percolation. Mokuzai Gakkai Shi, 2022, 68, 26-35.	0.2	0