Josephine M Hill

List of Publications by Year
in descending order

108 papers	4,585 citations	108046 37 h-index	120465 65 g-index
108 all docs	108 docs citations	108 times ranked	5766 citing authors

#	Article	IF	Citations
1	Impact of particle size and catalyst dispersion on gasification rates measured in a thermogravimetric analysis unit: Case study of carbon black catalyzed by potassium or calcium. Fuel, 2021, 288, 119677.	3.4	9
2	Regeneration of Magnetic Adsorbents Saturated by Organic Pollutants. Environmental Chemistry for A Sustainable World, 2021, , 259-294.	0.3	1
3	A Career in Catalysis: James A. Dumesic. ACS Catalysis, 2021, 11, 2310-2339.	5.5	5
4	Promoting Effect of Supports with Oxygen Vacancies as Extrinsic Defects on the Reduction of Iron Oxide. Journal of Physical Chemistry C, 2021, 125, 14299-14310.	1.5	11
5	Reply to â€œComment on â€˜Erroneous Application of Pseudo-Second Order Adsorption Kinetics Model: Ignored Assumptions and Spurious Correlationsâ€™â€• Industrial & Engineering Chemistry Research, 2021, 60, 8960-8961.	1.8	0
6	Preface for the Doing Things Differently Special Section. Canadian Journal of Chemical Engineering, 2021, 99, 2115-2115.	0.9	1
7	Modification of biochar with high-energy ball milling: Development of porosity and surface acid functional groups. Bioresource Technology Reports, 2021, 15, 100704.	1.5	21
8	CO₂ Gasification of Sugarcane Bagasse Char: Consideration of Pyrolysis Temperature, Silicon and Aluminum Contents, and Potassium Addition for Recirculation of Char. Energy & Fuels, 2020, 34, 16201-16211.	2.5	4
9	Nitric Acid Functionalization of Petroleum Coke to Access Inherent Sulfur. Catalysts, 2020, 10, 259.	1.6	10
10	Solid acid catalysts produced by sulfonation of petroleum coke: Dominant role of aromatic hydrogen. Chemosphere, 2020, 248, 125981.	4.2	18
11	Removal of Sulfur Compounds from Industrial Emission Using Activated Carbon Derived from Petroleum Coke. Industrial & Engineering Chemistry Research, 2019, 58, 18896-18900.	1.8	14
12	Phosphonium-enhanced chitosan for Cr(VI) adsorption in wastewater treatment. Carbohydrate Polymers, 2019, 211, 249-256.	5.1	82
13	Effect of calcium and barium on potassium-catalyzed gasification of ash-free carbon black. Fuel, 2019, 254, 115647.	3.4	4
14	Carbonaceous Catalysts from Biomass. Biofuels and Biorefineries, 2019, , 185-231.	0.5	1
15	Catalysts for gasification: a review. Sustainable Energy and Fuels, 2019, 3, 656-672.	2.5	77
16	Mechanistic insights for the electro-Fenton regeneration of carbon materials saturated with methyl orange: Dominance of electrodesorption. Journal of Hazardous Materials, 2019, 367, 59-67.	6.5	19
17	Erroneous Application of Pseudo-Second-Order Adsorption Kinetics Model: Ignored Assumptions and Spurious Correlations. Industrial & Engineering Chemistry Research, 2018, 57, 2705-2709.	1.8	132
18	Carbon and Mo transformations during the synthesis of mesoporous Mo2C/carbon catalysts by carbothermal hydrogen reduction. Journal of Solid State Chemistry, 2018, 258, 818-824.	1.4	27

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19	Activated carbon production: Recycling KOH to minimize waste. Materials Letters, 2018, 220, 238-240.	1.3	25
20	Pore enlargement of carbonaceous materials by metal oxide catalysts in the presence of steam: Influence of metal oxide size and porosity of starting material. Microporous and Mesoporous Materials, 2018, 256, 91-101.	2.2	12
21	Impacts of amount of chemical agent and addition of steam for activation of petroleum coke with KOH or NaOH. Fuel Processing Technology, 2018, 181, 53-60.	3.7	36
22	Benefit of Hydrophilicity for Adsorption of Methyl Orange and Electro-Fenton Regeneration of Activated Carbon-Polytetrafluoroethylene Electrodes. Environmental Science & Technology, 2018, 52, 11760-11768.	4.6	12
23	Determination of the Synergism/Antagonism Parameters during Co-gasification of Potassium-Rich Biomass with Non-biomass Feedstock. Energy & Fuels, 2017, 31, 1842-1849.	2.5	20
24	Interaction of Potassium and Calcium in the Catalytic Gasification of Biosolids and Switchgrass. Energy & Fuels, 2017, 31, 6240-6247.	2.5	21
25	Impact of Pore Size on Fenton Oxidation of Methyl Orange Adsorbed on Magnetic Carbon Materials: Trade-Off between Capacity and Regenerability. Environmental Science & Technology, 2017, 51, 4567-4575.	4.6	46
26	Adsorption of acid-extractable organics from oil sands process-affected water onto biomass-based biochar: Metal content matters. Chemosphere, 2017, 168, 1337-1344.	4.2	21
27	Sustainable and/or waste sources for catalysts: Porous carbon development and gasification. Catalysis Today, 2017, 285, 204-210.	2.2	17
28	The Effects of Thermal Treatment and Steam Addition on Integrated CuO/CaO Chemical Looping Combustion for CO2 Capture. Technologies, 2016, 4, 11.	3.0	16
29	Activation of Aspen Wood with Carbon Dioxide and Phosphoric Acid for Removal of Total Organic Carbon from Oil Sands Produced Water: Increasing the Yield with Bio-Oil Recycling. Materials, 2016, 9, 20.	1.3	24
30	Synthesis of porous carbon from petroleum coke using steam, potassium and sodium: Combining treatments to create mesoporosity. Microporous and Mesoporous Materials, 2016, 234, 239-247.	2.2	46
31	Removal and biodegradation of naphthenic acids by biochar and attached environmental biofilms in the presence of co-contaminating metals. Bioresource Technology, 2016, 216, 352-361.	4.8	90
32	Impact of K2CO3 catalyst loading on the CO2-gasification of Genesse raw coal and low-ash product. Powder Technology, 2016, 290, 141-147.	2.1	22
33	Petcoke-derived functionalized activated carbon as support in a bifunctional catalyst for tire oil hydroprocessing. Fuel Processing Technology, 2016, 144, 239-247.	3.7	25
34	Using activated biochar for greenhouse gas mitigation and industrial water treatment. Mitigation and Adaptation Strategies for Global Change, 2016, 21, 761-777.	1.0	5
35	The removal of methyl orange from aqueous solution by biochar and activated carbon under microwave irradiation and in the presence of hydrogen peroxide. Journal of Environmental Chemical Engineering, 2015, 3, 1452-1458.	3.3	26
36	Highly cost-effective and sulfur/coking resistant VO_x-grafted TiO₂ nanoparticles as an efficient anode catalyst for direct conversion of dry sour methane in solid oxide fuel cells. Journal of Materials Chemistry A, 2015, 3, 23973-23980.	5.2	14

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37	Impacts of vanadium and coke deposits on the CO2 gasification of nickel catalysts supported on activated carbon from petroleum coke. Applied Catalysis A: General, 2015, 504, 420-428.	2.2	14
38	Comparing in Situ Carbon Tolerances of Sn-Infiltrated and BaO-Infiltrated Ni-YSZ Cermet Anodes in Solid Oxide Fuel Cells Exposed to Methane. Journal of Physical Chemistry C, 2015, 119, 7637-7647.	1.5	28
39	Formation of CH₄ during K₂CO₃-Catalyzed Steam Gasification of Ash-Free Coal: Influence of Catalyst Loading, H₂O/H₂ Ratio, and Heating Protocol. Energy & Fuels, 2015, 29, 6970-6977.	2.5	11
40	CO₂ and H₂S Adsorption on Î³-Al₂O₃-Supported Lanthanum Oxide. Energy & Fuels, 2015, 29, 6049-6056.	2.5	9
41	Characterization, gasification, activation, and potential uses for the millions of tonnes of petroleum coke produced in Canada each year. Canadian Journal of Chemical Engineering, 2014, 92, 1618-1626.	0.9	32
42	Enhancing biochar yield by co-pyrolysis of bio-oil with biomass: Impacts of potassium hydroxide addition and air pretreatment prior to co-pyrolysis. Bioresource Technology, 2014, 171, 88-94.	4.8	32
43	K2CO3 catalyzed steam gasification of ash-free coal. Studying the effect of temperature on carbon conversion and gas production rate using a drop-down reactor. Fuel, 2014, 128, 210-219.	3.4	49
44	Effects of H2S and H2O on carbon deposition over La0.4Sr0.5Ba0.1TiO3/YSZ perovskite anodes in methane fueled SOFCs. Journal of Power Sources, 2014, 250, 134-142.	4.0	15
45	Pyrolysis of wood to biochar: Increasing yield while maintaining microporosity. Bioresource Technology, 2014, 153, 173-179.	4.8	41
46	Fuel characterization and co-pyrolysis kinetics of biomass and fossil fuels. Fuel, 2014, 117, 1204-1214.	3.4	186
47	Barium oxide promoted Ni/YSZ solid-oxide fuel cells for direct utilization of methane. Journal of Materials Chemistry A, 2014, 2, 1922-1929.	5.2	37
48	Evaluation of a Cu/YSZ and Ni/YSZ Bilayer Anode for the Direct Utilization of Methane in a Solidâ€Oxide Fuel Cell. Fuel Cells, 2014, 14, 162-170.	1.5	4
49	A non-equimolar mass transfer model for carbon dioxide gasification studies by thermogravimetric analysis. Fuel Processing Technology, 2014, 124, 1-10.	3.7	21
50	K2CO3 catalyzed CO2 gasification of ash-free coal. Interactions of the catalyst with carbon in N2 and CO2 atmosphere. Fuel, 2014, 117, 1181-1189.	3.4	154
51	Activated carbon prepared from Canadian oil sands coke by CO₂ activation: I. Trends in pore development and the effect of preâ€oxidation. Canadian Journal of Chemical Engineering, 2013, 91, 1491-1499.	0.9	13
52	In Situ Raman Studies of Carbon Removal from High Temperature Niâ€“YSZ Cermet Anodes by Gas Phase Reforming Agents. Journal of Physical Chemistry C, 2013, 117, 25908-25916.	1.5	51
53	Potassium catalyzed CO2 gasification of petroleum coke at elevated pressures. Fuel Processing Technology, 2013, 113, 34-40.	3.7	36
54	Co-gasification of Biomass and Non-biomass Feedstocks: Synergistic and Inhibition Effects of Switchgrass Mixed with Sub-bituminous Coal and Fluid Coke During CO₂ Gasification. Energy & Fuels, 2013, 27, 494-500.	2.5	168

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55	K₂CO₃-Catalyzed CO₂ Gasification of Ash-Free Coal: Kinetic Study. Energy & Fuels, 2013, 27, 4875-4883.	2.5	73
56	Activated carbon prepared from Canadian oil sands coke by Co₂ activation: II. Adsorption of metallic ions and organic constituents from oil sands tailings water. Canadian Journal of Chemical Engineering, 2013, 91, 1500-1507.	0.9	6
57	Influence of Experimental Conditions on Reliability of Carbon Tolerance Studies on Ni/YSZ SOFC Anodes Operated with Methane. Fuel Cells, 2013, 13, 703-711.	1.5	2
58	Comprehensive kinetic study for pyridine hydrodenitrogenation on (Ni)WP/SiO2 catalysts. Applied Catalysis A: General, 2012, 445-446, 50-60.	2.2	18
59	Reducibility and toluenehydrogenation activity of nickel catalysts supported on Î³-Al₂O₃and Î¸-Al₂O₃. Catalysis Science and Technology, 2012, 2, 179-186.	2.1	25
60	Carbon tolerance, electrochemical performance and stability of solid oxide fuel cells with Ni/yttria stabilized zirconia anodes impregnated with Sn and operated with methane. Journal of Power Sources, 2012, 214, 185-194.	4.0	42
61	Ni catalysts supported on activated carbon from petcoke and their activity for toluene hydrogenation. Canadian Journal of Chemical Engineering, 2012, 90, 631-636.	0.9	16
62	Determination of the fractal dimension of alumina using adsorption: Challenges of choosing appropriate adsorbates and analysis methods. Canadian Journal of Chemical Engineering, 2012, 90, 637-645.	0.9	2
63	Ni Promotion of WP/SiO2 Catalysts for Pyridine Hydrodenitrogenation. Catalysis Letters, 2012, 142, 845-853.	1.4	5
64	Direct Utilization of Methanol and Ethanol on La0.75Sr0.25Cr0.5Mn0.5O3â^'Î´ Anodes for Solid Oxide Fuel Cells. Electrocatalysis, 2012, 3, 59-67.	1.5	12
65	Effect of Pyrolysis and CO₂ Gasification Pressure on the Surface Area and Pore Size Distribution of Petroleum Coke. Energy & Fuels, 2011, 25, 5250-5256.	2.5	52
66	Kinetic Analysis of CO₂ Gasification of Petroleum Coke at High Pressures. Energy & Fuels, 2011, 25, 4043-4048.	2.5	61
67	Anode- versus electrolyte-supported Ni-YSZ/YSZ/Pt SOFCs: Effect of cell design on OCV, performance and carbon formation for the direct utilization of dry methane. Journal of Power Sources, 2011, 196, 968-976.	4.0	47
68	Preparation of Cuâ€“Ni/YSZ solid oxide fuel cell anodes using microwave irradiation. Journal of Power Sources, 2011, 196, 5091-5094.	4.0	29
69	Gas Products Analysis during the Electrochemical Conversion of Dry Methane with a La0.3Sr0.7TiO3 and Ni/YSZ Bi-Layer SOFC Anode. ECS Transactions, 2011, 35, 1551-1561.	0.3	1
70	Microwave-Assisted Preparation of Cu Coated Ni/YSZ Anode for Direct Utilization of Dry CH₄ in SOFC. ECS Transactions, 2011, 35, 1389-1395.	0.3	1
71	Evaluation of Sn-Modified Ni/YSZ SOFC Anodes for the Direct Utilization of Methane. ECS Transactions, 2011, 35, 1397-1406.	0.3	2
72	Importance of pyrolysis and catalytic decomposition for the direct utilization of methanol in solid oxide fuel cells. Journal of Power Sources, 2010, 195, 54-61.	4.0	34

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73	Electrochemical performance and microstructure characterization of nickel yttriumâ€stabilized zirconia anode. AIChE Journal, 2010, 56, 1651-1658.	1.8	11
74	Carbon deposition on Ni/YSZ anodes exposed to CO/H2 feeds. Journal of Power Sources, 2010, 195, 1344-1351.	4.0	97
75	Direct utilization of methanol on impregnated Ni/YSZ and Niâ€“Zr0.35Ce0.65O2/YSZ anodes for solid oxide fuel cells. Journal of Power Sources, 2010, 195, 4002-4012.	4.0	48
76	Direct utilization of methanol and ethanol in solid oxide fuel cells using Cuâ€“Co(Ru)/Zr0.35Ce0.65O2â^Î´ anodes. Journal of Power Sources, 2010, 195, 3996-4001.	4.0	42
77	Study of the Electrochemical Oxidation of H2 on Ni/YSZ. ECS Transactions, 2009, 16, 167-176.	0.3	0
78	Effect of citric acid on the synthesis of tungsten phosphide hydrotreating catalysts. Applied Catalysis A: General, 2009, 368, 127-131.	2.2	14
79	Direct utilization of ethanol on ceriaâ€based anodes for solid oxide fuel cells. Asia-Pacific Journal of Chemical Engineering, 2009, 4, 45-54.	0.8	36
80	Direct Utilization of Liquid Fuels in SOFC for Portable Applications: Challenges for the Selection of Alternative Anodes. Energies, 2009, 2, 377-410.	1.6	116
81	Direct Utilization of Methanol on Ceria-based Anodes for SOFC. ECS Transactions, 2009, 16, 189-196.	0.3	3
82	The Synthesis and Evaluation of Up-scalable Molybdenum Based Ultra Dispersed Catalysts: Effect of Temperature on Particle Size. Catalysis Letters, 2008, 123, 16-23.	1.4	32
83	Effect of anodic polarization on carbon deposition on Ni/YSZ anodes exposed to methane. Applied Catalysis A: General, 2008, 342, 49-55.	2.2	75
84	Effect of hydrogen on carbon formation on Ni/YSZ composites exposed to methane. Applied Catalysis A: General, 2008, 347, 106-111.	2.2	69
85	Controlled Pore Opening of Ni/Al2O3Using Chemical Vapor Deposition in a Fluidized Bed Reactor. Industrial & Engineering Chemistry Research, 2007, 46, 684-690.	1.8	4
86	Distortions in Electrochemical Impedance Spectroscopy Measurements Using 3â€Electrode Methods in SOFC. I â€“ Effect of Cell Geometry. Fuel Cells, 2007, 7, 364-376.	1.5	54
87	Distortions in Electrochemical Impedance Spectroscopy Measurements Using 3â€Electrode Methods in SOFC. II. Effect of Electrode Activity and Relaxation Times. Fuel Cells, 2007, 7, 377-391.	1.5	34
88	Carbon deposition on Ni/YSZ composites exposed to humidified methane. Applied Catalysis A: General, 2007, 317, 284-292.	2.2	200
89	3D modeling of anode-supported planar SOFC with internal reforming of methane. Journal of Power Sources, 2007, 171, 601-609.	4.0	117
90	Comparison of reducibility and stability of alumina-supported Ni catalysts prepared by impregnation and co-precipitation. Applied Catalysis A: General, 2006, 301, 16-24.	2.2	324

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91	Solâ€“gel synthesis of Pt/Al2O3 catalysts: Effect of Pt precursor and calcination procedure on Pt dispersion. Journal of Molecular Catalysis A, 2006, 259, 51-60.	4.8	34
92	Electrical and microstructural characterization of spinel phases as potential coatings for SOFC metallic interconnects. Journal of Power Sources, 2006, 153, 114-124.	4.0	139
93	Yttrium, cobalt and yttrium/cobalt oxide coatings on ferritic stainless steels for SOFC interconnects. Journal of Power Sources, 2006, 157, 335-350.	4.0	90
94	Comparison of hydrogenation and mild hydrocracking activities of Pt-supported catalysts. Catalysis Today, 2004, 93-95, 457-465.	2.2	13
95	Hydrogenation and mild hydrocracking of synthetic crude distillate by Pt-supported mesoporous material catalysts. Studies in Surface Science and Catalysis, 2002, 141, 543-552.	1.5	10
96	Mild Hydrocracking of Synthetic Crude Gas Oil over Pt Supported on Pillared and Delaminated Clays. Energy & Fuels, 2002, 16, 855-863.	2.5	19
97	A sponge-like luminescent coordination framework via an Aufbau approach. Chemical Communications, 2002, , 1900-1901.	2.2	62
98	Palladium Nanoparticle Catalyst Prepared in Poly(Acrylic Acid)-lined Channels of Diblock Copolymer Microspheres. Nano Letters, 2001, 1, 683-687.	4.5	107
99	Title is missing!. Catalysis Letters, 2000, 68, 129-138.	1.4	21
100	Microcalorimetric, Infrared Spectroscopic, and DFT Studies of Ethylene Adsorption on Pd and Pd/Sn Catalysts. Langmuir, 2000, 16, 2213-2219.	1.6	52
101	Studies of the adsorption of acetaldehyde, methyl acetate, ethyl acetate, and methyl trifluoroacetate on silica. Journal of Molecular Catalysis A, 1999, 140, 199-214.	4.8	51
102	Ethylene adsorption on Pt/Au/SiO2 catalysts. Catalysis Letters, 1999, 60, 1-9.	1.4	37
103	Microcalorimetric, Infrared Spectroscopic, and DFT Studies of Ethylene Adsorption on Pt/SiO2 and Ptâ^'Sn/SiO2 Catalysts. Journal of Physical Chemistry B, 1999, 103, 3923-3934.	1.2	112
104	Effects of aging and washing on UV and ozone-treated poly(ethylene terephthalate) and polypropylene. Journal of Adhesion Science and Technology, 1995, 9, 1575-1591.	1.4	56
105	A comparison of gas-phase methods of modifying polymer surfaces. Journal of Adhesion Science and Technology, 1995, 9, 365-383.	1.4	126
106	UV and ozone treatment of polypropylene and poly(ethylene terephthalate). Journal of Adhesion Science and Technology, 1995, 9, 1229-1248.	1.4	131
107	Determining the pore structure of activated carbon by nitrogen gas adsorption. Catalysis, 0, , 41-63.	0.6	6
108	Support for catalysis in <scp>C</scp> anada by the <scp>CIC C</scp> atalysis <scp>D</scp> ivision and <scp>C</scp> anadian <scp>C</scp> atalysis <scp>F</scp> oundation. Canadian Journal of Chemical Engineering, 0, , .	0.9	0