Mark Crocker

List of Publications by Year
in descending order

125 papers	5,685 citations	66343 42 h-index	91884 69 g-index
146 all docs	146 docs citations	146 times ranked	5542 citing authors

#	Article	IF	Citations
1	Cooperative BrÃ¸nsted-Lewis acid sites created by phosphotungstic acid encapsulated metalâ€“organic frameworks for selective glucose conversion to 5-hydroxymethylfurfural. Fuel, 2022, 310, 122459.	6.4	28
2	Aluminumâ€based Metalâ€Organic Framework as Waterâ€tolerant Lewis Acid Catalyst for Selective Dihydroxyacetone Isomerization to Lactic Acid. ChemCatChem, 2022, 14, .	3.7	5
3	Unveiling the structural, electronic, and optical effects of carbon-doping on multi-layer anatase TiO2 (1 0 1) and the impact on photocatalysis. Applied Surface Science, 2022, 586, 152641.	6.1	12
4	Aluminumâ€Containing Metalâ€Organic Frameworks as Selective and Reusable Catalysts for Glucose Isomerization to Fructose. ChemCatChem, 2022, 14, .	3.7	2
5	Effect of Pd promotion and catalyst support on the Ni-catalyzed deoxygenation of tristearin to fuel-like hydrocarbons. Renewable Energy, 2022, 195, 1468-1479.	8.9	11
6	Simultaneous promotion of photosynthesis and astaxanthin accumulation during two stages of Haematococcus pluvialis with ammonium ferric citrate. Science of the Total Environment, 2021, 750, 141689.	8.0	29
7	Algae-Based Beneficial Re-use of Carbon Emissions Using a Novel Photobioreactor: a Techno-Economic and Life Cycle Analysis. Bioenergy Research, 2021, 14, 292-302.	3.9	15
8	Effects of Treatment Conditions on Pd Speciation in CHA and Beta Zeolites for Passive NO_{<i>x</i>} Adsorption. ACS Omega, 2021, 6, 29471-29482.	3.5	12
9	Bioplastic feedstock production from microalgae with fuel co-products: A techno-economic and life cycle impact assessment. Algal Research, 2020, 46, 101769.	4.6	94
10	Hydrophobic functionalization of HY zeolites for efficient conversion of glycerol to solketal. Applied Catalysis A: General, 2020, 592, 117369.	4.3	42
11	Pd-promoted WO3-ZrO2 for low temperature NOx storage. Applied Catalysis B: Environmental, 2020, 264, 118499.	20.2	30
12	A Genetic Algorithmic Approach to Determine the Structure of Liâ€“Al Layered Double Hydroxides. Journal of Chemical Information and Modeling, 2020, 60, 4845-4855.	5.4	4
13	Evaluation of near-ambient algal biomass fractionation conditions for bioproduct development. Biomass Conversion and Biorefinery, 2020, , 1.	4.6	1
14	Synergy between Î²-Mo2C Nanorods and Non-thermal Plasma for Selective CO2 Reduction to CO. CheM, 2020, 6, 3312-3328.	11.7	47
15	Investigation into the Catalytic Roles of Various Oxygen Species over Different Crystal Phases of MnO₂ for C₆H₆ and HCHO Oxidation. ACS Catalysis, 2020, 10, 6176-6187.	11.2	172
16	New insights into the size and support effects of Î³-Al2O3 supported Au catalysts for HCHO oxidation at room temperature. Catalysis Science and Technology, 2020, 10, 4571-4579.	4.1	10
17	Insights into the structure-activity relationships of highly efficient CoMn oxides for the low temperature NH3-SCR of NOx. Applied Catalysis B: Environmental, 2020, 277, 119215.	20.2	68
18	New insights into alkaline metal modified CoMn-oxide catalysts for formaldehyde oxidation at low temperatures. Applied Catalysis A: General, 2020, 596, 117512.	4.3	38

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19	Promotional Effect of Cu, Fe and Pt on the Performance of Ni/Al2O3 in the Deoxygenation of Used Cooking Oil to Fuel-Like Hydrocarbons. Catalysts, 2020, 10, 91.	3.5	21
20	Effective Model of NOx Adsorption and Desorption on PtPd/CeO2-ZrO2 Passive NOx Adsorber. Catalysis Letters, 2020, 150, 3223-3233.	2.6	10
21	Beneficial Reuse of Industrial CO2 Emissions Using a Microalgae Photobioreactor: Waste Heat Utilization Assessment. Energies, 2019, 12, 2634.	3.1	9
22	A comparative study of secondary depolymerization methods on oxidized lignins. Green Chemistry, 2019, 21, 3940-3947.	9.0	38
23	Beneficial re-use of industrial CO2 emissions using microalgae: Demonstration assessment and biomass characterization. Bioresource Technology, 2019, 293, 122014.	9.6	18
24	Py-GCMS studies of Indian coals and their solvent extracted products. Fuel, 2019, 256, 115981.	6.4	23
25	Catalytic Materials for Low Concentration VOCs Removal through â€œStorageâ€Regenerationâ€•Cycling. ChemCatChem, 2019, 11, 3646-3661.	3.7	23
26	Effect of Pt Promotion on the Ni-Catalyzed Deoxygenation of Tristearin to Fuel-Like Hydrocarbons. Catalysts, 2019, 9, 200.	3.5	16
27	Continuous Catalytic Deoxygenation of Waste Free Fatty Acid-Based Feeds to Fuel-Like Hydrocarbons Over a Supported Ni-Cu Catalyst. Catalysts, 2019, 9, 123.	3.5	25
28	Co-processing of hydrothermal liquefaction algal bio-oil and petroleum feedstock to fuel-like hydrocarbons via fluid catalytic cracking. Fuel Processing Technology, 2019, 188, 164-171.	7.2	48
29	Positive effects of K+ in hybrid CoMn-K and Pd/Ba/Al2O3 catalysts for NOx storage and reduction. Applied Catalysis B: Environmental, 2019, 249, 333-345.	20.2	19
30	Proximate composition of enhanced DGAT high oil, high protein soybeans. Biocatalysis and Agricultural Biotechnology, 2019, 21, 101303.	3.1	5
31	Hybrid catalysts with enhanced C3H6 resistance for NH3-SCR of NOx. Applied Catalysis B: Environmental, 2019, 242, 161-170.	20.2	33
32	Mechanochemical Treatment Facilitates Two-Step Oxidative Depolymerization of Kraft Lignin. ACS Sustainable Chemistry and Engineering, 2018, 6, 5990-5998.	6.7	47
33	Understanding Lignin Fractionation and Characterization from Engineered Switchgrass Treated by an Aqueous Ionic Liquid. ACS Sustainable Chemistry and Engineering, 2018, 6, 6612-6623.	6.7	56
34	Effect of Cu promotion on cracking and methanation during the Ni-catalyzed deoxygenation of waste lipids and hemp seed oil to fuel-like hydrocarbons. Catalysis Today, 2018, 302, 261-271.	4.4	31
35	Gold-catalyzed conversion of lignin to low molecular weight aromatics. Chemical Science, 2018, 9, 8127-8133.	7.4	61
36	Mn-based mixed oxides for low temperature NOx adsorber applications. Applied Catalysis A: General, 2018, 567, 90-101.	4.3	22

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37	Oxidation of Benzylic Alcohols and Lignin Model Compounds with Layered Double Hydroxide Catalysts. Inorganics, 2018, 6, 75.	2.7	4
38	Regioselective Baeyerâ€“Villiger oxidation of lignin model compounds with tin beta zeolite catalyst and hydrogen peroxide. RSC Advances, 2017, 7, 25987-25997.	3.6	35
39	Non-thermal plasma enhanced NSR performance over Pt/M/Ba/Al2O3 (M = Mn, Co, Cu) catalysts. Chemical Engineering Journal, 2017, 314, 688-699.	12.7	21
40	Pt- and Pd-Promoted CeO₂â€“ZrO₂ for Passive NOx Adsorber Applications. Industrial & Engineering Chemistry Research, 2017, 56, 111-125.	3.7	67
41	Impact of Dilute Sulfuric Acid, Ammonium Hydroxide, and Ionic Liquid Pretreatments on the Fractionation and Characterization of Engineered Switchgrass. Bioenergy Research, 2017, 10, 1079-1093.	3.9	21
42	Use of Dual Detection in the Gas Chromatographic Analysis of Oleaginous Biomass Feeds and Biofuel Products To Enable Accurate Simulated Distillation and Lipid Profiling. Energy & Fuels, 2017, 31, 9498-9506.	5.1	10
43	The function of Pt in plasma-assisted NOx storage and reduction. Catalysis Communications, 2017, 102, 81-84.	3.3	4
44	Reducing biomass recalcitrance by heterologous expression of a bacterial peroxidase in tobacco (Nicotiana benthamiana). Scientific Reports, 2017, 7, 17104.	3.3	17
45	CeO2-M2O3 Passive NO x Adsorbers for Cold Start Applications. Emission Control Science and Technology, 2017, 3, 59-72.	1.5	33
46	Low-temperature H₂-plasma-assisted NO_x storage and reduction over a combined Pt/Ba/Al and LaMnFe catalyst. Catalysis Science and Technology, 2017, 7, 145-158.	4.1	13
47	Capture and recycle of industrial CO2 emissions using microalgae. Applied Petrochemical Research, 2016, 6, 279-293.	1.3	28
48	Application of recycled media and algae-based anaerobic digestate in Scenedesmus cultivation. Journal of Renewable and Sustainable Energy, 2016, 8, 013116.	2.0	11
49	Extraction, characterization, purification and catalytic upgrading of algae lipids to fuel-like hydrocarbons. Fuel, 2016, 180, 668-678.	6.4	45
50	A comparison of the oxidation of lignin model compounds in conventional and ionic liquid solvents and application to the oxidation of lignin. RSC Advances, 2016, 6, 104742-104753.	3.6	15
51	Ceria-Based Catalysts for Low Temperature NO x Storage and Release. Catalysis Letters, 2016, 146, 909-917.	2.6	53
52	Effect of Cu and Sn promotion on the catalytic deoxygenation of model and algal lipids to fuel-like hydrocarbons over supported Ni catalysts. Applied Catalysis B: Environmental, 2016, 191, 147-156.	20.2	102
53	Pt-free, non-thermal plasma-assisted NO storage and reduction over M/Ba/Al2O3 (M = Mn, Fe, Co, Ni,) Tj ETQq1 1 0.784314 rgBT /Overl	4.4	30
54	Structural Evolution of Molybdenum Carbides in Hot Aqueous Environments and Impact on Low-Temperature Hydroprocessing of Acetic Acid. Catalysts, 2015, 5, 406-423.	3.5	14

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55	Oxidation of lignin and lignin Î²-O-4 model compounds via activated dimethyl sulfoxide. RSC Advances, 2015, 5, 105136-105148.	3.6	21
56	Al2O3-based passive NOx adsorbers for low temperature applications. Applied Catalysis B: Environmental, 2015, 170-171, 283-292.	20.2	118
57	Selective cleavage of the C_{Î±}â€"C_{Î²} linkage in lignin model compounds via Baeyerâ€"Villiger oxidation. Organic and Biomolecular Chemistry, 2015, 13, 3243-3254.	2.8	68
58	Continuous catalytic deoxygenation of model and algal lipids to fuel-like hydrocarbons over Niâ€"Al layered double hydroxide. Catalysis Today, 2015, 258, 284-293.	4.4	42
59	Characterization of Endocarp Biomass and Extracted Lignin Using Pyrolysis and Spectroscopic Methods. Bioenergy Research, 2015, 8, 350-368.	3.9	20
60	An energy-efficient catalytic process for the tandem removal of formaldehyde and benzene by metal/HZSM-5 catalysts. Catalysis Science and Technology, 2015, 5, 4968-4972.	4.1	13
61	Activated Carbon, Carbon Nanofiber and Carbon Nanotube Supported Molybdenum Carbide Catalysts for the Hydrodeoxygenation of Guaiacol. Catalysts, 2015, 5, 424-441.	3.5	64
62	Non-thermal plasma assisted NO storage and reduction over a cobalt-containing Pd catalyst using H2 and/or CO as reductants. Catalysis Today, 2015, 258, 175-182.	4.4	11
63	Non-thermal plasma-assisted NO storage and reduction over cobalt-containing LNT catalysts. Catalysis Today, 2015, 258, 386-395.	4.4	19
64	Understanding on the origins of hydroxyapatite stabilized gold nanoparticles as high-efficiency catalysts for formaldehyde and benzene oxidation. Catalysis Communications, 2015, 59, 195-200.	3.3	43
65	NO storage and reduction properties of model manganese-based lean NO trap catalysts. Applied Catalysis B: Environmental, 2015, 165, 232-244.	20.2	41
66	Pt/Ce Pr1â^'O2 (x= 1 or 0.9) NO storageâ€"reduction (NSR) catalysts. Applied Catalysis B: Environmental, 2015, 163, 313-322.	20.2	13
67	Adsorption and desorption of propene on a commercial Cu-SSZ-13 SCR catalyst. Catalysis Today, 2014, 231, 83-89.	4.4	15
68	Roles of C3H6 in NH3 generation and NOx reduction over a Cu-chabazite SCR catalyst under lean/rich cycling conditions. Catalysis Today, 2014, 231, 90-98.	4.4	14
69	Lipid extraction from Scenedesmus sp. microalgae for biodiesel production using hot compressed hexane. Fuel, 2014, 130, 66-69.	6.4	49
70	Effect of aging on NOx reduction in coupled LNTâ€"SCR systems. Applied Catalysis B: Environmental, 2014, 148-149, 51-61.	20.2	31
71	Mutagenesis Breeding for Increased 3-Deoxyanthocyanidin Accumulation in Leaves of Sorghum bicolor (L.) Moench: A Source of Natural Food Pigment. Journal of Agricultural and Food Chemistry, 2014, 62, 1227-1232.	5.2	29
72	Simulated Distillation Approach to the Gas Chromatographic Analysis of Feedstock and Products in the Deoxygenation of Lipids to Hydrocarbon Biofuels. Energy & Fuels, 2014, 28, 2654-2662.	5.1	10

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73	CO2 recycling using microalgae for the production of fuels. Applied Petrochemical Research, 2014, 4, 41-53.	1.3	54
74	Catalytic deoxygenation of triglycerides and fatty acids to hydrocarbons over Niâ€"Al layered double hydroxide. Catalysis Today, 2014, 237, 136-144.	4.4	76
75	FeOx-supported gold catalysts for catalytic removal of formaldehyde at room temperature. Applied Catalysis B: Environmental, 2014, 154-155, 73-81.	20.2	137
76	A comparative study of the catalytic oxidation of HCHO and CO over Mn0.75Co2.25O4 catalyst: The effect of moisture. Applied Catalysis B: Environmental, 2014, 160-161, 542-551.	20.2	85
77	Isocyanate formation and reactivity on a Ba-based LNT catalyst studied by DRIFTS. Applied Catalysis B: Environmental, 2013, 140-141, 265-275.	20.2	17
78	Complete oxidation of formaldehyde at ambient temperature over Î³-Al2O3 supported Au catalyst. Catalysis Communications, 2013, 42, 93-97.	3.3	102
79	A study of the mechanism of low-temperature SCR of NO with NH3 on MnOx/CeO2. Journal of Molecular Catalysis A, 2013, 378, 82-90.	4.8	108
80	Non-thermal plasma-assisted NOx storage and reduction on a LaMn0.9Fe0.1O3 perovskite catalyst. Catalysis Today, 2013, 211, 96-103.	4.4	44
81	Catalytic deoxygenation of triglycerides and fatty acids to hydrocarbons over carbon-supported nickel. Fuel, 2013, 103, 1010-1017.	6.4	173
82	Microalgae as a renewable fuel source: Fast pyrolysis of ScenedesmusÂsp.. Renewable Energy, 2013, 60, 625-632.	8.9	146
83	Catalytic removal of formaldehyde at room temperature over supported gold catalysts. Applied Catalysis B: Environmental, 2013, 132-133, 245-255.	20.2	212
84	Three-dimensional ordered mesoporous Coâ€"Mn oxide: A highly active catalyst for â€œstorageâ€"oxidationâ€• cycling for the removal of formaldehyde. Catalysis Communications, 2013, 36, 52-57.	3.3	71
85	Pyrolysisâ€"GC/MS of sinapyl and coniferyl alcohol. Journal of Analytical and Applied Pyrolysis, 2013, 99, 161-169.	5.5	36
86	Global bioenergy potential from high-lignin agricultural residue. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4014-4019.	7.1	66
87	N2O Mitigation in a Coupled LNTâ€"SCR System. Catalysis Letters, 2012, 142, 1167-1174.	2.6	8
88	Application of spaciMS to the study of ammonia formation in lean NOx trap catalysts. Applied Catalysis B: Environmental, 2012, 123-124, 339-350.	20.2	21
89	Influence of media composition on the growth rate of Chlorella vulgaris and Scenedesmus acutus utilized for CO2 mitigation. , 2012, , .		3
90	Catalytic deoxygenation of fatty acids and their derivatives to hydrocarbon fuels via decarboxylation/decarbonylation. Journal of Chemical Technology and Biotechnology, 2012, 87, 1041-1050.	3.2	262

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91	Catalytic deoxygenation of triglycerides to hydrocarbons over supported nickel catalysts. Chemical Engineering Journal, 2012, 189-190, 346-355.	12.7	132
92	A non-NH3 pathway for NOx conversion in coupled LNT-SCR systems. Applied Catalysis B: Environmental, 2012, 111-112, 562-570.	20.2	44
93	NOx storage and reduction properties of model ceria-based lean NOx trap catalysts. Applied Catalysis B: Environmental, 2012, 119-120, 183-196.	20.2	58
94	Carbon Nanotube-Supported Metal Catalysts for NOxReduction Using Hydrocarbon Reductants: Gas Switching and Adsorption Studies. Industrial & Engineering Chemistry Research, 2011, 50, 7191-7200.	3.7	13
95	The effect of regeneration conditions on the selectivity of NOx reduction in a fully formulated lean NOx trap catalyst. Catalysis Today, 2011, 175, 83-92.	4.4	20
96	Identification and thermochemical analysis of high-lignin feedstocks for biofuel and biochemical production. Biotechnology for Biofuels, 2011, 4, 43.	6.2	72
97	NOx Reduction on Fully Formulated Lean NOx Trap Catalysts Subjected to Simulated Road Aging: Insights from Steady-State Experiments. Chinese Journal of Catalysis, 2011, 32, 736-745.	14.0	5
98	Effect of aging on the NOx storage and regeneration characteristics of fully formulated lean NOx trap catalysts. Applied Catalysis B: Environmental, 2011, 103, 413-427.	20.2	33
99	Carbon nanotube-supported metal catalysts for NOx reduction using hydrocarbon reductants. Part 1: Catalyst preparation, characterization and NOx reduction characteristics. Applied Catalysis B: Environmental, 2011, 102, 1-8.	20.2	36
100	Conversion of Triglycerides to Hydrocarbons Over Supported Metal Catalysts. Topics in Catalysis, 2010, 53, 820-829.	2.8	183
101	Tripodal titanium silsesquioxane complexes immobilized in polydimethylsiloxane (PDMS) membrane: Selective catalysts for epoxidation of cyclohexene and 1-octene with aqueous hydrogen peroxide. Journal of Catalysis, 2010, 273, 66-72.	6.2	22
102	Effect of ceria on the desulfation characteristics of model lean NOx trap catalysts. Catalysis Today, 2010, 151, 338-346.	4.4	18
103	NOx storageâ€“reduction characteristics of Ba-based lean NOx trap catalysts subjected to simulated road aging. Catalysis Today, 2010, 151, 362-375.	4.4	31
104	Effect of Ceria on the Sulfation and Desulfation Characteristics of a Model Lean NO x Trap Catalyst. Catalysis Letters, 2009, 127, 55-62.	2.6	20
105	Bio-oil upgrading over platinum catalysts using in situ generated hydrogen. Applied Catalysis A: General, 2009, 358, 150-156.	4.3	240
106	NOx storage and reduction in model lean NOx trap catalysts studied by in situ DRIFTS. Applied Catalysis B: Environmental, 2009, 91, 329-338.	20.2	69
107	Single-step synthesis of germanium nanowires encapsulated within multi-walled carbon nanotubes. Carbon, 2009, 47, 1708-1714.	10.3	20
108	Biodiesel synthesis using calcined layered double hydroxide catalysts. Applied Catalysis B: Environmental, 2008, 82, 120-130.	20.2	149

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109	Influence of ceria on the NOx storage/reduction behavior of lean NOx trap catalysts. Catalysis Today, 2008, 136, 146-155.	4.4	71
110	New sulfur adsorbents derived from layered double hydroxides. Applied Catalysis B: Environmental, 2008, 82, 190-198.	20.2	43
111	New sulfur adsorbents derived from layered double hydroxides. Applied Catalysis B: Environmental, 2008, 82, 199-207.	20.2	50
112	Preparation and characterization of cerium oxide templated from activated carbon. Journal of Materials Science, 2007, 42, 3454-3464.	3.7	24
113	Biodiesel production from soybean oil using calcined Liâ€“Al layered double hydroxide catalysts. Catalysis Letters, 2007, 115, 56-61.	2.6	81
114	Effect of Ceria on the Storage and Regeneration Behavior of a Model Lean NO x Trap Catalyst. Catalysis Letters, 2007, 119, 257-264.	2.6	64
115	Supported bismuth oxide catalysts for the selective reduction of NO with propene in lean conditions. Catalysis Communications, 2006, 7, 122-126.	3.3	5
116	Surface Organometallic Chemistry of Titanium:Â Synthesis, Characterization, and Reactivity of (â‹®Siâ^'O)nTi(CH2C(CH3)3)4-n(n= 1, 2) Grafted on Aerosil Silica and MCM-41. Organometallics, 2006, 25, 3743-3760.	2.3	39
117	A kinetic and DRIFTS study of supported Pt catalysts for NO oxidation. Catalysis Letters, 2006, 110, 29-37.	2.6	61
118	Bi2O3/Al2O3 catalysts for the selective reduction of NO with hydrocarbons in lean conditions. Applied Catalysis B: Environmental, 2006, 65, 44-54.	20.2	11
119	Photoluminescence of Titanosilsesquioxanes in Solution and Its Relevance for the Understanding of the Emission of Titanosilicates. ChemPhysChem, 2000, 1, 93-97.	2.1	1
120	Sulfur dioxide as a chemical probe for titanyl groups in titanium silicalites. Journal of Molecular Catalysis A, 1996, 110, L7-L11.	4.8	8
121	Reactions of nucleophiles with cationic bridging alkylidyne complexes. Journal of Organometallic Chemistry, 1990, 394, 339-347.	1.8	17
122	Reactions of coordinated ligands. Part 47. Synthesis, structure, and reactivity of [.eta.4(5e)-butadienyl]ruthenium complexes: crystal structures of CpRu:C(Ph)-.eta.3-[C(Ph)C(Ph)CH(Ph)], CpRuC(Ph):C(Ph)-.eta.2-[C(Ph):CH(Ph)]P(OMe)3, and CpRu2[.mu.-(Z)-C(Ph):CH(Ph)](CO)2(.eta.4-C4Ph4). Organometallics, 1990, 9, 1422-1434.	2.3	33
123	Reactions of organocopper reagents with the cationic bridging acylium complex [C5H5(CO)Fe]2(.mu.-CO)(.mu.-CHCO)+. Organometallics, 1989, 8, 278-282.	2.3	15
124	Formation of bridging acylium and nitrilium complexes by reaction of carbon monoxide and tert-butyl isocyanide with a bridging diiron methylidyne complex. Evidence for strong electron donation from the Fe2C core onto the .mu.-CHC.tplbond.O and .mu.-CHC.tplbond.NR ligands. Journal of the American Chemical Society, 1988, 110, 6070-6076.	13.7	32
125	Reactions of heteroatom and carbon nucleophiles with the cationic bridging methylidyne complex {[(C5H5)(CO)Fe]2(.mu.-CO)(.mu.-CH)}+ PF6-. Organometallics, 1988, 7, 670-675.	2.3	23