Josh A Pihl

List of Publications by Year
in descending order

57 papers	1,464 citations	331670 21 h-index	377865 34 g-index
57 all docs	57 docs citations	57 times ranked	1168 citing authors

#	Article	IF	Citations
1	What fuel properties enable higher thermal efficiency in spark-ignited engines?. Progress in Energy and Combustion Science, 2021, 82, 100876.	31.2	110
2	Study of the Theoretical Potential of Thermochemical Exhaust Heat Recuperation for Internal Combustion Engines. Energy & Fuels, 2010, 24, 1529-1537.	5.1	83
3	Condition-Dependent Pd Speciation and NO Adsorption in Pd/Zeolites. ACS Catalysis, 2020, 10, 12801-12818.	11.2	74
4	Evolution and Enabling Capabilities of Spatially Resolved Techniques for the Characterization of Heterogeneously Catalyzed Reactions. ACS Catalysis, 2016, 6, 1356-1381.	11.2	70
5	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
6	Passive-ammonia selective catalytic reduction (SCR): Understanding NH3 formation over close-coupled three way catalysts (TWC). Catalysis Today, 2014, 231, 33-45.	4.4	57
7	PGM based catalysts for exhaust-gas after-treatment under typical diesel, gasoline and gas engine conditions with focus on methane and formaldehyde oxidation. Applied Catalysis B: Environmental, 2020, 265, 118571.	20.2	56
8	Sulfur and temperature effects on the spatial distribution of reactions inside a lean NOx trap and resulting changes in global performance. Catalysis Today, 2008, 136, 173-182.	4.4	55
9	Spatiotemporal distribution of NOx storage and impact on NH3 and N2O selectivities during lean/rich cycling of a Ba-based lean NOx trap catalyst. Catalysis Today, 2012, 184, 20-26.	4.4	50
10	NH3 formation over a lean NOX trap (LNT) system: Effects of lean/rich cycle timing and temperature. Applied Catalysis B: Environmental, 2014, 147, 698-710.	20.2	50
11	Aftertreatment Protocols for Catalyst Characterization and Performance Evaluation: Low-Temperature Oxidation, Storage, Three-Way, and NH3-SCR Catalyst Test Protocols. Emission Control Science and Technology, 2019, 5, 183-214.	1.5	46
12	Negative Valve Overlap Reforming Chemistry in Low-Oxygen Environments. SAE International Journal of Engines, 0, 7, 418-433.	0.4	40
13	New insights on N2O formation pathways during lean/rich cycling of a commercial lean NO trap catalyst. Catalysis Today, 2014, 231, 145-154.	4.4	36
14	Kinetic modeling of NH3-SCR over a supported Cu zeolite catalyst using axial species distribution measurements. Applied Catalysis B: Environmental, 2015, 163, 393-403.	20.2	35
15	Lean NOx reduction over Ag/alumina catalysts via ethanol-SCR using ethanol/gasoline blends. Applied Catalysis B: Environmental, 2017, 202, 42-50.	20.2	35
16	Microkinetic modeling of lean NOx trap chemistry under reducing conditions. Catalysis Today, 2008, 136, 104-120.	4.4	33
17	Local ammonia storage and ammonia inhibition in a monolithic copper-beta zeolite SCR catalyst. Applied Catalysis B: Environmental, 2012, 126, 144-152.	20.2	31
18	Deactivation of accelerated engine-aged and field-aged Feâ€“zeolite SCR catalysts. Catalysis Today, 2010, 151, 257-265.	4.4	30

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19	Passive SCR for lean gasoline NOX control: Engine-based strategies to minimize fuel penalty associated with catalytic NH3 generation. Catalysis Today, 2016, 267, 202-209.	4.4	28
20	Ammonia Generation and Utilization in a Passive SCR (TWC+SCR) System on Lean Gasoline Engine. SAE International Journal of Engines, 0, 9, 1289-1295.	0.4	27
21	Effective Model for Prediction of N2O and NH3 Formation During the Regeneration of NO x Storage Catalyst. Topics in Catalysis, 2013, 56, 118-124.	2.8	26
22	Catalytic Steam and Partial Oxidation Reforming of Liquid Fuels for Application in Improving the Efficiency of Internal Combustion Engines. Energy & Fuels, 2018, 32, 2267-2281.	5.1	24
23	Ammonia Generation over TWC for Passive SCR NO_X Control for Lean Gasoline Engines. SAE International Journal of Engines, 0, 7, 1235-1243.	0.4	23
24	Response Characteristics of a Stable Mixed Potential Ammonia Sensor in Simulated Diesel Exhaust. Journal of the Electrochemical Society, 2017, 164, B448-B455.	2.9	23
25	Nature and spatial distribution of sulfur species in a sulfated barium-based commercial lean NOx trap catalyst. Catalysis Today, 2010, 151, 354-361.	4.4	22
26	Pre-oxidized and nitrided stainless steel alloy foil for proton exchange membrane fuel cell bipolar plates. Part 2: Single-cell fuel cell evaluation of stamped plates. Journal of Power Sources, 2010, 195, 5619-5627.	7.8	21
27	Catalytic Exhaust Gas Recirculation-Loop Reforming for High Efficiency in a Stoichiometric Spark-Ignited Engine through Thermochemical Recuperation and Dilution Limit Extension, Part 2: Engine Performance. Energy & Fuels, 2018, 32, 2257-2266.	5.1	21
28	Reactivity of novel high-performance fuels on commercial three-way catalysts for control of emissions from spark-ignition engines. Applied Energy, 2019, 255, 113640.	10.1	21
29	Slow Heterogeneous Charge Transfer Kinetics for the ClO2-/ClO2Redox Couple at Platinum, Gold, and Carbon Electrodes. Evidence for Nonadiabatic Electron Transfer. Journal of Physical Chemistry A, 1999, 103, 10461-10469.	2.5	20
30	Investigation of NO adsorption and desorption phenomena on a Pd/ZSM-5 passive NOx adsorber. Applied Catalysis B: Environmental, 2021, 298, 120561.	20.2	20
31	O2 dosage as a descriptor of TWC performance under lean/rich dithering in stoichiometric natural gas engines. Catalysis Today, 2021, 360, 294-304.	4.4	19
32	Catalytic Exhaust Gas Recirculation-Loop Reforming for High Efficiency in a Stoichiometric Spark-Ignited Engine through Thermochemical Recuperation and Dilution Limit Extension, Part 1: Catalyst Performance. Energy & Fuels, 2018, 32, 2245-2256.	5.1	17
33	Integration of an Oxidation Catalyst with Pd/Zeolite-Based Passive NOx Adsorbers: Impacts on Degradation Resistance and Desorption Characteristics. Industrial & Engineering Chemistry Research, 2021, 60, 6455-6464.	3.7	16
34	Selective catalytic reduction of nitric oxide with ethanol/gasoline blends over a silver/alumina catalyst. Catalysis Today, 2014, 231, 46-55.	4.4	15
35	Thermodynamic Analysis of Alternative Approaches to Chemical Looping Combustion. Energy & Fuels, 2011, 25, 656-669.	5.1	14
36	Co-optimization of Heavy-Duty Fuels and Engines: Cost Benefit Analysis and Implications. Environmental Science & Technology, 2019, 53, 12904-12913.	10.0	14

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37	Sulfation of potassium-based lean NOx trap while cycling between lean and rich conditions. Catalysis Today, 2008, 136, 164-172.	4.4	13
38	Production, fuel properties and combustion testing of an iso-olefins blendstock for modern vehicles. Fuel, 2022, 310, 122314.	6.4	13
39	Progression of Soot Cake Layer Properties During the Systematic Regeneration of Diesel Particulate Filters Measured with Neutron Tomography. Emission Control Science and Technology, 2015, 1, 24-31.	1.5	11
40	Impact of Selected High-Performance Fuel Blends on Three-Way Catalyst Light Off under Synthetic Spark-Ignition Engine-Exhaust Conditions. Energy & Fuels, 2020, 34, 12900-12910.	5.1	11
41	Measurement and Modeling of the effects of exhaust composition and hydrothermal aging on the ammonia storage capacity of a commercial Cu-SSZ-13 catalyst. Applied Catalysis B: Environmental, 2022, 303, 120898.	20.2	9
42	Response Characteristics of Stable Mixed-Potential NH3 Sensors in Diesel Engine Exhaust. Emission Control Science and Technology, 2017, 3, 112-121.	1.5	8
43	Lean NOx Trap Chemistry Under Lean-Gasoline Exhaust Conditions: Impact of High NOx Concentrations and High Temperature. Topics in Catalysis, 2013, 56, 89-93.	2.8	7
44	The selective catalytic reduction of NO over Ag/Al2O3 with isobutanol as the reductant. Catalysis Today, 2016, 267, 65-75.	4.4	7
45	Effects of NO_X Storage Component on Ammonia Formation in TWC for Passive SCR NO_X Control inÂLean Gasoline Engines. , 0, , .		7
46	Passive SCR Performance Under Pseudo-Transient Cycle: Challenges and Opportunities for Meeting Tier 3 Emissions. Emission Control Science and Technology, 2019, 5, 253-262.	1.5	7
47	Impact of dopants on the sulfation, desulfation and NOx reduction performance of Ba-based NOx storage-reduction catalystsâ˜†. Catalysis Today, 2011, 160, 131-136.	4.4	6
48	A SCR Model Calibration Approach with Spatially Resolved Measurements and NH3 Storage Distributions. Emission Control Science and Technology, 2015, 1, 98-107.	1.5	6
49	Development of a Global Kinetic Model for a Commercial Lean NOx Trap Automotive Catalyst Based on Laboratory Measurements. Emission Control Science and Technology, 2017, 3, 73-92.	1.5	6
50	The effects of ceria loading on three-way catalysts for passive SCR operation. Catalysis Communications, 2021, 156, 106308.	3.3	6
51	Hydrocarbon Fouling of SCR During PCCI Combustion. SAE International Journal of Engines, 0, 5, 947-957.	0.4	5
52	Nonuniform Oxidation Behavior of Loaded Gasoline Particulate Filters. Emission Control Science and Technology, 2020, 6, 301-314.	1.5	5
53	Nanoarray-Based Monolithic Adsorbers for SO2 Removal. Emission Control Science and Technology, 2020, 6, 315-323.	1.5	3
54	Development of a Surface Area Dependent Rate Expression for Soot Oxidation in Diesel Particulate Filters. Topics in Catalysis, 2013, 56, 499-503.	2.8	2

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55	Selective Catalytic Reduction of Oxides of Nitrogen with Ethanol/Gasoline Blends over a Silver/Alumina Catalyst in Lean Gasoline Engine Exhaust. , 0, , .		1
56	2017 DOE-Crosscut Lean/Low-Temperature Exhaust Emissions Reduction Simulation (CLEERS) Workshop. Emission Control Science and Technology, 2018, 4, 135-135.	1.5	0
57	Performance Comparison of LPG and Gasoline in an Engine Configured for EGR-Loop Catalytic Reforming. , 0, , .		0