

Patrick Kirchen

List of Publications by Year in descending order

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39
papers

734
citations

516561

16
h-index

580701

25
g-index

39
all docs

39
docs citations

39
times ranked

672
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical simulation of ion transport membrane reactors: Oxygen permeation and transport and fuel conversion. <i>Journal of Membrane Science</i> , 2012, 407-408, 71-85.	4.1	63
2	Production, analysis and combustion characterization of biomass fast pyrolysis oil " Biodiesel blends for use in diesel engines. <i>Fuel</i> , 2017, 199, 346-357.	3.4	46
3	A novel ion transport membrane reactor for fundamental investigations of oxygen permeation and oxy-combustion under reactive flow conditions. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 3463-3470.	2.4	45
4	A SKELETAL KINETIC MECHANISM FOR PRF COMBUSTION IN HCCI ENGINES. <i>Combustion Science and Technology</i> , 2007, 179, 1059-1083.	1.2	43
5	Measuring the oxygen profile and permeation flux across an ion transport membrane. <i>Journal of Membrane Science</i> , 2013, 446, 230-243.	4.1	40
6	Characterization of reaction zone growth in an optically accessible heavy-duty diesel/methane dual-fuel engine. <i>International Journal of Engine Research</i> , 2019, 20, 483-500.	1.4	33
7	Modeling of a combined ion transport and porous membrane reactor for oxy-combustion. <i>Journal of Membrane Science</i> , 2013, 446, 230-243.	4.1	32
8	Toward enhanced hydrogen generation from water using oxygen permeating LCF membranes. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 10093-10107.	1.3	30
9	Characterization of particulate matter emitted by a marine engine operated with liquefied natural gas and diesel fuels. <i>Atmospheric Environment</i> , 2020, 220, 117030.	1.9	30
10	CFD (computational fluid dynamics) analysis of a novel reactor design using ion transport membranes for oxy-fuel combustion. <i>Energy</i> , 2014, 77, 932-944.	4.5	29
11	Interactions between oxygen permeation and homogeneous-phase fuel conversion on the sweep side of an ion transport membrane. <i>Journal of Membrane Science</i> , 2013, 428, 309-322.	4.1	28
12	Comprehensive analysis of the air quality impacts of switching a marine vessel from diesel fuel to natural gas. <i>Environmental Pollution</i> , 2020, 266, 115404.	3.7	27
13	Effect of Fueling Control Parameters on Combustion and Emissions Characteristics of Diesel-Ignited Methane Dual-Fuel Combustion. , 0, , .		24
14	Size and morphology of soot produced by a dual-fuel marine engine. <i>Journal of Aerosol Science</i> , 2019, 138, 105448.	1.8	23
15	Characterization and Reduction of In-Use CH ₄ Emissions from a Dual Fuel Marine Engine Using Wavelength Modulation Spectroscopy. <i>Environmental Science & Technology</i> , 2019, 53, 2892-2899.	4.6	23
16	Parametric study of pilot-ignited direct-injection natural gas combustion in an optically accessible heavy-duty engine. <i>International Journal of Engine Research</i> , 2020, 21, 497-513.	1.4	23
17	Typical and Atypical Morphology of Non-volatile Particles from a Diesel and Natural Gas Marine Engine. <i>Aerosol and Air Quality Research</i> , 2020, 20, 730-740.	0.9	20
18	Effect of Injection Strategies on Emissions from a Pilot-Ignited Direct-Injection Natural-Gas Engine-Part I: Late Post Injection. , 0, , .		19

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19	Laminar oxy-fuel diffusion flame supported by an oxygen-permeable-ion-transport membrane. <i>Combustion and Flame</i> , 2013, 160, 704-717.	2.8	18
20	Soot Emission Measurements and Validation of a Mean Value Soot Model for Common-Rail Diesel Engines during Transient Operation. <i>SAE International Journal of Engines</i> , 0, 2, 1663-1678.	0.4	17
21	Analysis of heterogeneous oxygen exchange and fuel oxidation on the catalytic surface of perovskite membranes. <i>Journal of Membrane Science</i> , 2013, 445, 96-106.	4.1	13
22	Development and validation of a multi-angle light scattering method for fast engine soot mass and size measurements. <i>Aerosol Science and Technology</i> , 2020, 54, 1083-1101.	1.5	13
23	Exhaust-Stream and In-Cylinder Measurements and Analysis of the Soot Emissions From a Common Rail Diesel Engine Using Two Fuels. <i>Journal of Engineering for Gas Turbines and Power</i> , 2010, 132, .	0.5	12
24	Characterizing soot in TEM images using a convolutional neural network. <i>Powder Technology</i> , 2021, 387, 313-324.	2.1	12
25	Effect of Fuelling Control Parameters on Combustion Characteristics of Diesel-Ignited Natural Gas Dual-Fuel Combustion in an Optical Engine. , 2016, , .		10
26	New transform to project axisymmetric deflection fields along arbitrary rays. <i>Measurement Science and Technology</i> , 2022, 33, 035201.	1.4	10
27	Refinement of the two-color pyrometry method for application in a direct injection diesel and natural gas compression-ignition engine. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2019, 233, 3787-3800.	1.1	9
28	A Phenomenological Mean Value Soot Model for Transient Engine Operation. <i>MTZ Worldwide</i> , 2008, 69, 58-65.	0.1	8
29	Towards improved partial oxidation product yield in mixed ionic-electronic membrane reactors using CSTR and CFD modelling. <i>Chemical Engineering Science</i> , 2019, 195, 11-22.	1.9	7
30	Pyrometric imaging of soot processes in a pilot ignited direct injected natural gas engine. <i>International Journal of Engine Research</i> , 2021, 22, 1605-1623.	1.4	6
31	Measurement of cycle-resolved engine-out soot concentration from a diesel-pilot assisted natural gas direct-injection compression-ignition engine. <i>International Journal of Engine Research</i> , 2022, 23, 380-396.	1.4	4
32	Heat release rate and emissions regimes of stratified pilot-ignited direct-injection natural gas combustion. <i>International Journal of Engine Research</i> , 2023, 24, 265-285.	1.4	4
33	The coupling effect of gas-phase chemistry and surface reactions on oxygen permeation and fuel conversion in ITM reactors. <i>Journal of Membrane Science</i> , 2015, 488, 1-12.	4.1	3
34	Robust image segmentation for feature extraction from internal combustion engine in-cylinder images. <i>Measurement Science and Technology</i> , 2020, 32, 015302.	1.4	3
35	Fast Exhaust Nephelometer (FEN): A New Instrument for Measuring Cycle-Resolved Engine Particulate Emission. , 2016, , .		2
36	Discrete-Time Preview-Feedback H ∞ Control for Selective Catalytic Reduction Systems. <i>International Journal of Automotive Technology</i> , 2021, 22, 811-821.	0.7	2

#	ARTICLE	IF	CITATIONS
37	Two-Colour Pyrometry Measurements of Low-Temperature Combustion using Borescopic Imaging. , 0, , .		1
38	Characterization of Methane Emissions from a Natural Gas-Fuelled Marine Vessel under Transient Operation. , 0, , .		1
39	Optical characterization of stratified-premixed natural gas direct-injection combustion regimes. International Journal of Engine Research, 0, , 146808742211071.	1.4	1