Rui Chen

List of Publications by Year
in descending order

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Version: 2024-02-01

150	4,879	126858	118793
papers	citations	33 h-index	62 g-index

152	152	152	7883
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Oxygen transport in proton exchange membrane fuel cells with metal foam flow fields. Journal of Power Sources, 2022, 521, 230937.	4.0	13
2	Comparing Veterans Affairs and Private Sector Perioperative Outcomes After Noncardiac Surgery. JAMA Surgery, 2022, 157, 231.	2.2	24
3	Two-dimensional partitioned square ice confined in graphene/graphite nanocapillaries. Journal of Chemical Physics, 2022, 156, 154510.	1.2	3
4	Improving dust resistance of mine tailings using green biopolymer. Environmental Geotechnics, 2021, 8, 382-391.	1.3	9
5	A novel statistical method for interpreting the pathogenicity of rare variants. Genetics in Medicine, 2021, 23, 59-68.	1.1	3
6	Stratified Test Accurately Identifies Differentially Expressed Genes Under Batch Effects in Single-Cell Data. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2021, 18, 2072-2079.	1.9	3
7	Optical study on the effects of the hydrogen injection timing on lean combustion characteristics using a natural gas/hydrogen dual-fuel injected spark-ignition engine. International Journal of Hydrogen Energy, 2021, 46, 20777-20789.	3.8	34
8	Nuclear NAD ⁺ homeostasis governed by NMNAT1 prevents apoptosis of acute myeloid leukemia stem cells. Science Advances, 2021, 7, .	4.7	18
9	Age-related changes in the rhesus macaque eye. Experimental Eye Research, 2021, 212, 108754.	1.2	9
10	Point cloud denoising using non-local collaborative projections. Pattern Recognition, 2021, 120, 108128.	5.1	12
11	Association Between Patient Frailty and Postoperative Mortality Across Multiple Noncardiac Surgical Specialties. JAMA Surgery, 2021, 156, e205152.	2.2	53
12	Cwc27, associated with retinal degeneration, functions as a splicing factor in vivo. Human Molecular Genetics, 2021, , .	1.4	8
13	Effect of Nafion loading and the novel flow field designs on innovative anode electrocatalyst for improved Direct Methanol Fuel cells performance. Materials Letters, 2020, 276, 128222.	1.3	8
14	Stabilization of soft soil using low-carbon alkali-activated binder. Environmental Earth Sciences, 2020, 79, 1.	1.3	17
15	Effect of diluent gases on end-gas autoignition and combustion modes in a confined space. Combustion and Flame, 2020, 222, 48-60.	2.8	11
16	Positive and Negative Independent Predictive Factors of Weight Loss After Bariatric Surgery in a Veteran Population. Obesity Surgery, 2020, 30, 2124-2130.	1.1	21
17	Experimental investigation of flow and heat transfer characteristics on matrix ribbed channel. Thermal Science, 2020, 24, 1593-1600.	0.5	2
18	Single image super-resolution using deep hierarchical attention network. , 2020, , .		0

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19	Stratified Test Alleviates Batch Effects in Single-Cell Data. Lecture Notes in Computer Science, 2020, , 167-177.	1.0	3
20	Catalytic oxidation of diesel soot particulates over Pt substituted LaMn1-xPtxO3 perovskite oxides. Catalysis Today, 2019, 327, 73-80.	2.2	35
21	Continuous salt stress-induced long non-coding RNAs and DNA methylation patterns in soybean roots. BMC Genomics, 2019, 20, 730.	1.2	56
22	Robust estimation for image noise based on eigenvalue distributions of large sample covariance matrices. Journal of Visual Communication and Image Representation, 2019, 63, 102604.	1.7	2
23	Numerical Study on the Effects of Multiple-Injection Coupled with EGR on Combustion and NOx Emissions in a Marine Diesel Engine. Energy Procedia, 2019, 158, 4429-4434.	1.8	26
24	Flameâ€“spray interaction and combustion features in split-injection spray flames under diesel engine-like conditions. Combustion and Flame, 2019, 210, 204-221.	2.8	20
25	Experimental investigation of the stochastic nature of end-gas autoignition with detonation development in confined combustion chamber. Combustion and Flame, 2019, 210, 324-338.	2.8	15
26	Transcriptome-Wide Analysis of Human Chondrocyte Expansion on Synoviocyte Matrix. Cells, 2019, 8, 85.	1.8	17
27	Application of a capillary crystalline material to enhance cement grout for sealing tunnel leakage. Construction and Building Materials, 2019, 214, 497-505.	3.2	40
28	Liquid Water Transport in Porous Metal Foam Flow-Field Fuel Cells: A Two-Phase Numerical Modelling and Ex-Situ Experimental Study. Energies, 2019, 12, 1186.	1.6	13
29	Experimental investigation on DMFCs using reduced noble metal loading with NiTiO3 as supportive material to enhance cell performances. International Journal of Hydrogen Energy, 2019, 44, 13415-13423.	3.8	19
30	Feasibility study on a vehicular thermoelectric generator for both waste heat recovery and engine oil warm-up. Applied Energy, 2019, 242, 273-284.	5.1	29
31	Accurate fullâ€resolution reconstruction of spikeâ€encoded image time series using random matrix theory. Electronics Letters, 2019, 55, 182-184.	0.5	0
32	Blind denoising for LiDAR signal based on high dimensional eigenvalue analysis. Optoelectronics Letters, 2019, 15, 406-410.	0.4	1
33	Experimental investigation on combustion characteristics in dual-fuel dual-injection engine. Energy Conversion and Management, 2019, 181, 15-25.	4.4	39
34	A nonhuman primate model of inherited retinal disease. Journal of Clinical Investigation, 2019, 129, 863-874.	3.9	78
35	Equivalent Stiffness Model of a Proton Exchange Membrane Fuel Cell Stack Including Hygrothermal Effects and Dimensional Tolerances. Journal of Electrochemical Energy Conversion and Storage, 2018, 15, .	1.1	7
36	Highly (110)â€Oriented Co_{1â€x}S Nanosheet Arrays on Carbon Fiber Paper as Highâ€Performance and Binderâ€Free Electrodes for Oxygen Production. ChemistrySelect, 2018, 3, 3970-3974.	0.7	5

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37	Distinct transcriptomic and exomic abnormalities within myelodysplastic syndrome marrow cells. Leukemia and Lymphoma, 2018, 59, 2952-2962.	0.6	16
38	Experimental and analytical analysis of polarization and water transport behaviors of hydrogen alkaline membrane fuel cell. Journal of Power Sources, 2018, 382, 1-12.	4.0	20
39	Learning a collaborative multiscale dictionary based on robust empirical mode decomposition. Neurocomputing, 2018, 287, 196-207.	3.5	2
40	The effects of gas diffusion layers structure on water transportation using X-ray computed tomography based Lattice Boltzmann method. Journal of Power Sources, 2018, 378, 53-65.	4.0	51
41	Turbulent flame propagation with pressure oscillation in the end gas region of confined combustion chamber equipped with different perforated plates. Combustion and Flame, 2018, 191, 453-467.	2.8	34
42	Influence of asymmetric valve strategy on large-scale and turbulent in-cylinder flows. International Journal of Engine Research, 2018, 19, 631-642.	1.4	9
43	A new model based on adiabatic flame temperature for evaluation of the upper flammable limit of alkane-air-CO2 mixtures. Journal of Hazardous Materials, 2018, 344, 450-457.	6.5	22
44	A dynamic model for thermoelectric generator applied to vehicle waste heat recovery. Applied Energy, 2018, 210, 327-338.	5.1	149
45	Longitudinal personal DNA methylome dynamics in a human with a chronic condition. Nature Medicine, 2018, 24, 1930-1939.	15.2	55
46	Experimental analysis of super-knock occurrence based on a spark ignition engine with high compression ratio. Energy, 2018, 165, 68-75.	4.5	28
47	Effects of applying EGR with split injection strategy on combustion performance and knock resistance in a spark assisted compression ignition (SACI) engine. Applied Thermal Engineering, 2018, 145, 98-109.	3.0	38
48	Prediction of the fuel economy potential for a skutterudite thermoelectric generator in light-duty vehicle applications. Applied Energy, 2018, 231, 68-79.	5.1	38
49	Characterization of Imprinted Genes in Rice Reveals Conservation of Regulation and Imprinting with Other Plant Species. Plant Physiology, 2018, 177, 1754-1771.	2.3	50
50	Noise Level Estimation for Overcomplete Dictionary Learning Based on Tight Asymptotic Bounds. Lecture Notes in Computer Science, 2018, , 257-267.	1.0	2
51	Content Adaptive Constraint Based Image Upsampling. Lecture Notes in Computer Science, 2018, , 827-837.	1.0	0
52	High cost-efficient and computational gigapixel video camera based on commercial lenses and CMOS chips. Applied Optics, 2018, 57, 8519.	0.9	1
53	De novo and rare mutations in the HSPA1L heat shock gene associated with inflammatory bowel disease. Genome Medicine, 2017, 9, 8.	3.6	27
54	Different combustion modes caused by flame-shock interactions in a confined chamber with a perforated plate. Combustion and Flame, 2017, 178, 277-285.	2.8	45

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55	Numerical study on transition of hydrogen/air flame triggered by auto-ignition under effect of pressure wave in an enclosed space. International Journal of Hydrogen Energy, 2017, 42, 16877-16886.	3.8	6
56	Blind restoration for nonuniform aerial images using nonlocal Retinex model and shearlet-based higher-order regularization. Journal of Electronic Imaging, 2017, 26, 033016.	0.5	6
57	Effects of the turbulence model and the spray model on predictions of the n-heptane jet fuelâ€“air mixing and the ignition characteristics with a reduced chemistry mechanism. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2017, 231, 1877-1888.	1.1	6
58	Effect of pressure wave disturbance on auto-ignition mode transition and knocking intensity under enclosed conditions. Combustion and Flame, 2017, 185, 63-74.	2.8	38
59	Energy- and exergy-based working fluid selection and performance analysis of a high-temperature PEMFC-based micro combined cooling heating and power system. Applied Energy, 2017, 204, 446-458.	5.1	86
60	Correlation preserving on graphs for image denoising. , 2017, , .		0
61	Bayer demosaicking using optimised mean curvature over RGB channels. Electronics Letters, 2017, 53, 1190-1192.	0.5	1
62	A Fuel Cell System Sizing Tool Based on Current Production Aircraft. , 2017, , .		6
63	An Impedance Model for EIS Analysis of Nickel Metal Hydride Batteries. Journal of the Electrochemical Society, 2017, 164, A1446-A1453.	1.3	17
64	Experimental study on stoichiometric laminar flame velocities and Markstein lengths of methane and PRF95 dual fuels. Fuel, 2016, 182, 721-731.	3.4	10
65	A structure-preserving image restoration method with high-level ensemble constraints. , 2016, , .		3
66	An impedance model for analysis of EIS of polymer electrolyte fuel cells under platinum oxidation and hydrogen peroxide formation in the cathode. Journal of Electroanalytical Chemistry, 2016, 771, 94-105.	1.9	17
67	PTFE mapping in gas diffusion media for PEMFCs using fluorescence microscopy. International Journal of Hydrogen Energy, 2016, 41, 17631-17643.	3.8	3
68	Experimental study on laminar flame characteristics of methane-PRF95 dual fuel under lean burn conditions. Fuel, 2016, 185, 254-262.	3.4	10
69	Experimental Investigation on the Laminar Burning Velocities and Markstein Lengths of Methane and PRF95 Dual Fuels. Energy & Fuels, 2016, 30, 6777-6789.	2.5	3
70	Structure preserving single image super-resolution. , 2016, , .		0
71	A Petri net approach for performance modelling of polymer electrolyte membrane fuel cell systems. International Journal of Hydrogen Energy, 2016, 41, 12242-12260.	3.8	20
72	Numerical study of turbulent flow inside a spark ignition engine cylinder. International Journal of Engineering Systems Modelling and Simulation, 2016, 8, 28.	0.2	0

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73	Powerpath controller for fuel cell & battery hybridisation. International Journal of Hydrogen Energy, 2016, 41, 4229-4238.	3.8	15
74	Anode partial flooding modelling of proton exchange membrane fuel cells: Model development and validation. Energy, 2016, 96, 80-95.	4.5	75
75	A HVS-guided approach for real-time image interpolation. , 2015, , .		0
76	Robust image/video super-resolution display. , 2015, , .		4
77	Comparison of electrical and mechanical water pump performance in internal combustion engine. International Journal of Vehicle Systems Modelling and Testing, 2015, 10, 205.	0.1	17
78	Modelling of Transient Stretched Laminar Flame Speed of Hydrogen-air Mixtures Using Combustion Kinetics. Energy Procedia, 2015, 66, 137-140.	1.8	0
79	A fast super-resolution method based on sparsity properties. , 2015, , .		1
80	Whole-Exome Enrichment with the Agilent SureSelect Human All Exon Platform. Cold Spring Harbor Protocols, 2015, 2015, pdb.prot083659.	0.2	38
81	Whole-Exome Enrichment with the Roche NimbleGen SeqCap EZ Exome Library SR Platform. Cold Spring Harbor Protocols, 2015, 2015, pdb.prot084855.	0.2	13
82	Whole-Exome Enrichment with the Illumina TruSeq Exome Enrichment Platform. Cold Spring Harbor Protocols, 2015, 2015, pdb.prot084863.	0.2	11
83	Method to improve catalyst layer model for modelling proton exchange membrane fuel cell. Journal of Power Sources, 2015, 289, 114-128.	4.0	18
84	An impedance model for analysis of EIS of polymer electrolyte fuel cells under hydrogen peroxide formation in the cathode. Journal of Electroanalytical Chemistry, 2015, 745, 28-36.	1.9	22
85	Experimental Assessment of Vapour Chamber Heater Spreader Implementation in Avionic Cooling. , 2015, , .		6
86	Development of a Full Scale Experimental and Simulation Tool for Environmental Control System Optimisation and Fault Detection. , 2015, , .		5
87	Flow properties of an intact MPL from nano-tomography and pore network modelling. Fuel, 2014, 136, 307-315.	3.4	32
88	A proposed agglomerate model for oxygen reduction in the catalyst layer of proton exchange membrane fuel cells. Electrochimica Acta, 2014, 150, 320-328.	2.6	10
89	Reliability of the spherical agglomerate models for catalyst layer in polymer electrolyte membrane fuel cells. Electrochimica Acta, 2014, 133, 475-483.	2.6	23
90	Whole-genome haplotyping using long reads and statistical methods. Nature Biotechnology, 2014, 32, 261-266.	9.4	170

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91	Mutations in NGLY1 cause an inherited disorder of the endoplasmic reticulumâ€“associated degradation pathway. Genetics in Medicine, 2014, 16, 751-758.	1.1	191
92	Modelling water intrusion and oxygen diffusion in a reconstructed microporous layer of PEM fuel cells. International Journal of Hydrogen Energy, 2014, 39, 17222-17230.	3.8	56
93	Whole-exome sequencing identifies tetratricopeptide repeat domain 7A (TTC7A) mutations for combined immunodeficiency with intestinal atresias. Journal of Allergy and Clinical Immunology, 2013, 132, 656-664.e17.	1.5	140
94	Promise of personalized omics to precision medicine. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2013, 5, 73-82.	6.6	245
95	Electrochemical impedance study on estimating the mass transport resistance in the polymer electrolyte fuel cell cathode catalyst layer. Journal of Electroanalytical Chemistry, 2013, 702, 45-48.	1.9	14
96	Study of current distribution and oxygen diffusion in the fuel cell cathode catalyst layer through electrochemical impedance spectroscopy. International Journal of Hydrogen Energy, 2013, 38, 1702-1713.	3.8	36
97	A generic electrical circuit for performance analysis of the fuel cell cathode catalyst layer through electrochemical impedance spectroscopy. Journal of Electroanalytical Chemistry, 2013, 694, 45-55.	1.9	46
98	Lattice Boltzmann simulation of water and gas flow in porous gas diffusion layers in fuel cells reconstructed from micro-tomography. Computers and Mathematics With Applications, 2013, 65, 891-900.	1.4	38
99	Numerical Simulation of Liquid Water Behavior in Microchannel With a 90Â° Bend. , 2013, , .		0
100	Conductive materials for polymeric bipolar plates: Electrical, thermal and mechanical properties of polyethylene-carbon black/graphite/magnetite blends. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2013, 227, 226-242.	0.7	4
101	An Electrical Circuit for Performance Analysis of Polymer Electrolyte Fuel Cell Stacks Using Electrochemical Impedance Spectroscopy. Journal of the Electrochemical Society, 2013, 160, F1109-F1115.	1.3	19
102	Turbocharger Performance Simulation with Optimized 1D Model. Advanced Materials Research, 2012, 516-517, 692-708.	0.3	1
103	Inductive Effect on the Fuel Cell Cathode Impedance Spectrum at High Frequencies. Journal of Fuel Cell Science and Technology, 2012, 9, .	0.8	28
104	An Improved MRT Lattice Boltzmann Model for Calculating Anisotropic Permeability of Compressed and Uncompressed Carbon Cloth Gas Diffusion Layers Based on X-Ray Computed Micro-Tomography. Journal of Fuel Cell Science and Technology, 2012, 9, .	0.8	16
105	Systems biology: personalized medicine for the future?. Current Opinion in Pharmacology, 2012, 12, 623-628.	1.7	90
106	Onset of cellular instabilities in spherically propagating hydrogen-air premixed laminar flames. International Journal of Hydrogen Energy, 2012, 37, 11458-11465.	3.8	55
107	Personal Omics Profiling Reveals Dynamic Molecular and Medical Phenotypes. Cell, 2012, 148, 1293-1307.	13.5	1,134
108	Freshwater algal cultivation with animal waste for nutrient removal and biomass production. Biomass and Bioenergy, 2012, 39, 128-138.	2.9	73

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109	Use of an algal hydrolysate to improve enzymatic hydrolysis of lignocellulose. Bioresource Technology, 2012, 108, 149-154.	4.8	22
110	Calculating the Anisotropic Permeability of Porous Media Using the Lattice Boltzmann Method and X-ray Computed Tomography. Transport in Porous Media, 2012, 92, 457-472.	1.2	40
111	3D visualization and characterization of nano structured materials. , 2011, , .		1
112	Thermodynamic Study on the Solubility of NaBH4 and NaBO2 in NaOH Solutions. , 2011, , .		2
113	Dedifferentiation-Reprogrammed Mesenchymal Stem Cells with Improved Therapeutic Potential. Stem Cells, 2011, 29, 2077-2089.	1.4	36
114	Threshold Fine-Tuning and 3D Characterisation of Porous Media Using X-ray Nanotomography. Current Nanoscience, 2010, 6, 226-231.	0.7	6
115	Polymer Electrolyte Fuel Cell Transport Mechanisms: A Universal Approach to Multilayer Two-Phase Modeling Through the General Transport Equation. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	3
116	Yeast proteomics and protein microarrays. Journal of Proteomics, 2010, 73, 2147-2157.	1.2	31
117	A multi-function compact fuel reforming reactor for fuel cell applications. Fuel, 2010, 89, 949-957.	3.4	5
118	Ionisation and Ionisation Rate of a Two-Stroke HCCI Engine Fuelled with E85 for Control Feedback. , 2010, , .		1
119	Systems Biology Approaches to Disease Marker Discovery. Disease Markers, 2010, 28, 209-224.	0.6	18
120	An X-Ray Tomography Based Lattice Boltzmann Simulation Study on Gas Diffusion Layers of Polymer Electrolyte Fuel Cells. Journal of Fuel Cell Science and Technology, 2010, 7, .	0.8	42
121	Multiscale Simulation of Single-Phase Multicomponent Transport in the Cathode Gas Diffusion Layer of a Polymer Electrolyte Fuel Cell. ECS Transactions, 2010, 28, 103-111.	0.3	6
122	The Low Current Electrochemical Mechanisms of the Fuel Cell Cathode Catalyst Layer Through an Impedance Study. Journal of the Electrochemical Society, 2010, 157, B400.	1.3	13
123	Multiscale Modeling of Single-Phase Multicomponent Transport in the Cathode Gas Diffusion Layer of a Polymer Electrolyte Fuel Cell. Energy & Fuels, 2010, 24, 3130-3143.	2.5	20
124	Impedance Study on Oxygen Diffusion Through Fuel Cell Cathode Catalyst Layer at High Current. Journal of the Electrochemical Society, 2010, 157, B1865.	1.3	8
125	Quasi-Constant Volume (QCV) Spark Ignition Combustion. , 2009, , .		4
126	A Zero-Dimensional Combustion Model with Reduced Kinetics for SI Engine Knock Simulation. Combustion Science and Technology, 2009, 181, 828-852.	1.2	33

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127	Failure Analysis of Polymer Electrolyte Fuel Cells. , 2008, , .		6
128	Semiempirical Hydrogen Generation Model Using Concentrated Sodium Borohydride Solution. Energy & Fuels, 2006, 20, 2149-2154.	2.5	51
129	Ion Current Signal Interpretation via Artificial Neural Networks for Gasoline HCCI Control. , 2006, , .		3
130	The Thermal Effect of Internal Exhaust Gas Recirculation on Controlled Auto Ignition. , 2003, , .		35
131	A computational study into the effect of exhaust gas recycling onÂhomogeneous charge compression ignition combustion in internal combustion engines fuelled with methane. International Journal of Thermal Sciences, 2002, 41, 805-813.	2.6	92
132	A Review of Experimental and Simulation Studies on Controlled Auto-Ignition Combustion. , 2001, , .		50
133	Piezo-fluidic Gaseous Fuel MPI System for Natural Gas Fuelled IC Engines.. JSME International Journal Series B, 2001, 44, 158-165.	0.3	2
134	An Investigation into the Use of Piezo-Fluidic Combined Units as Fuel Injectors for Natural Gas Engines. , 1996, , .		2
135	On the Mechanism of Controlled Auto Ignition. , 0, , .		21
136	A Comparison of the Flow Fields Generated for Spark and Controlled Auto-ignition. , 0, , .		5
137	Influence of the Variable Valve Timing Strategy on the Control of a Homogeneous Charge Compression (HCCI) Engine. , 0, , .		60
138	Enlarging the Operational Range of a Gasoline HCCI Engine By Controlling the Coolant Temperature. , 0, , .		39
139	Analysis of SI Combustion Diagnostics Methods Using Ion-Current Sensing Techniques. , 0, , .		14
140	Using Ion-current Sensing to Interpret Gasoline HCCI Combustion Processes. , 0, , .		16
141	A CFD Model with Optical Validation on In-cylinder Charge Performances of CAI Engines. , 0, , .		1
142	Polymer Electrolyte Fuel Cell Transport Mechanisms: Simulation Study of Hydrogen Crossover and Water Content. , 0, , .		0
143	Multi-Zone Kinetic Model of Controlled Auto Ignition Combustion. , 0, , .		0
144	The Impact of Biodiesel on Particle Number, Size and Mass Emissions from a Euro4 Diesel Vehicle. SAE International Journal of Engines, 0, 3, 597-608.	0.4	21

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145	Feasibility Study of Operating 2-Stroke Miller Cycles on a 4-Stroke Platform through Variable Valve Train. , 0, , .		8
146	Experimental Study on the Burning Rate of Methane and PRF95 Dual Fuels. SAE International Journal of Engines, 0, 9, 1117-1129.	0.4	3
147	Experimental Investigation of Turbulent Flame Propagation and Pressure Oscillation in a Constant Volume Chamber Equipped With an Orifice Plate. Combustion Science and Technology, 0, , 1-17.	1.2	6
148	A Comparison of Four Modelling Techniques for Thermoelectric Generator. , 0, , .		7
149	Improved Thermoelectric Generator Performance Using High Temperature Thermoelectric Materials. , 0, , .		15
150	The Potential of Thermoelectric Generator in Parallel Hybrid Vehicle Applications. , 0, , .		10