

Tian-Shou Zhao

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458 papers	24,695 citations	85 h-index	127 g-index
477 ext. papers	28,282 ext. citations	8.3 avg, IF	7.69 L-index

#	Paper	IF	Citations
458	Mechanism study of the ethanol oxidation reaction on palladium in alkaline media. <i>Electrochimica Acta</i> , 2009 , 54, 2203-2208	6.7	650
457	Non-precious Co ₃ O ₄ nano-rod electrocatalyst for oxygen reduction reaction in anion-exchange membrane fuel cells. <i>Energy and Environmental Science</i> , 2012 , 5, 5333-5339	35.4	450
456	Lattice Boltzmann model for incompressible flows through porous media. <i>Physical Review E</i> , 2002 , 66, 036304	2.4	431
455	Synthesis of PdNi catalysts for the oxidation of ethanol in alkaline direct ethanol fuel cells. <i>Journal of Power Sources</i> , 2010 , 195, 1001-1006	8.9	362
454	Borophene: A promising anode material offering high specific capacity and high rate capability for lithium-ion batteries. <i>Nano Energy</i> , 2016 , 23, 97-104	17.1	340
453	Novel gel polymer electrolyte for high-performance lithium-sulfur batteries. <i>Nano Energy</i> , 2016 , 22, 278-289	17.1	289
452	Advances and challenges in alkaline anion exchange membrane fuel cells. <i>Progress in Energy and Combustion Science</i> , 2018 , 66, 141-175	33.6	281
451	Recent advances in inorganic 2D materials and their applications in lithium and sodium batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 3735-3758	13	259
450	Multiwalled carbon nanotube supported PtRu for the anode of direct methanol fuel cells. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 5245-52	3.4	259
449	The effect of methanol concentration on the performance of a passive DMFC. <i>Electrochemistry Communications</i> , 2005 , 7, 288-294	5.1	249
448	In situ visualization study of CO ₂ gas bubble behavior in DMFC anode flow fields. <i>Journal of Power Sources</i> , 2005 , 139, 79-90	8.9	234
447	A correlation of optimal heat rejection pressures in transcritical carbon dioxide cycles. <i>Applied Thermal Engineering</i> , 2000 , 20, 831-841	5.8	217
446	An experimental investigation of convection heat transfer to supercritical carbon dioxide in miniature tubes. <i>International Journal of Heat and Mass Transfer</i> , 2002 , 45, 5025-5034	4.9	213
445	Numerical investigations of flow field designs for vanadium redox flow batteries. <i>Applied Energy</i> , 2013 , 105, 47-56	10.7	211
444	Preparation and characterization of a PtRu/C nanocatalyst for direct methanol fuel cells. <i>Electrochimica Acta</i> , 2005 , 51, 754-763	6.7	209
443	Small direct methanol fuel cells with passive supply of reactants. <i>Journal of Power Sources</i> , 2009 , 191, 185-202	8.9	196
442	A LATTICE BOLTZMANN MODEL FOR CONVECTION HEAT TRANSFER IN POROUS MEDIA. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2005 , 47, 157-177	1.3	192

44 ¹	Measurements of Heat Transfer Coefficients From Supercritical Carbon Dioxide Flowing in Horizontal Mini/Micro Channels. <i>Journal of Heat Transfer</i> , 2002 , 124, 413-420	1.8	188
44 ⁰	Thermal lattice Boltzmann equation for low Mach number flows: decoupling model. <i>Physical Review E</i> , 2007 , 75, 036704	2.4	184
439	Co-current air/water two-phase flow patterns in vertical triangular microchannels. <i>International Journal of Multiphase Flow</i> , 2001 , 27, 765-782	3.6	179
43 ⁸	Mass transport phenomena in direct methanol fuel cells. <i>Progress in Energy and Combustion Science</i> , 2009 , 35, 275-292	33.6	177
437	Carbon-neutral sustainable energy technology: Direct ethanol fuel cells. <i>Renewable and Sustainable Energy Reviews</i> , 2015 , 50, 1462-1468	16.2	175
43 ⁶	Performance of alkaline electrolyte-membrane-based direct ethanol fuel cells. <i>Journal of Power Sources</i> , 2009 , 187, 387-392	8.9	171
435	A comparative study of all-vanadium and iron-chromium redox flow batteries for large-scale energy storage. <i>Journal of Power Sources</i> , 2015 , 300, 438-443	8.9	162
434	Effect of membrane thickness on the performance and efficiency of passive direct methanol fuel cells. <i>Journal of Power Sources</i> , 2006 , 153, 61-67	8.9	159
433	A high-energy and long-cycling lithium-sulfur pouch cell via a macroporous catalytic cathode with double-end binding sites. <i>Nature Nanotechnology</i> , 2021 , 16, 166-173	28.7	153
43 ²	Preparation and characterization of carbon-supported sub-monolayer palladium decorated gold nanoparticles for the electro-oxidation of ethanol in alkaline media. <i>Journal of Power Sources</i> , 2009 , 187, 80-84	8.9	151
43 ¹	The use of polybenzimidazole membranes in vanadium redox flow batteries leading to increased coulombic efficiency and cycling performance. <i>Electrochimica Acta</i> , 2015 , 153, 492-498	6.7	147
43 ⁰	Boron phosphide monolayer as a potential anode material for alkali metal-based batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 672-679	13	144
429	Measurements of water uptake and transport properties in anion-exchange membranes. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 5656-5665	6.7	144
42 ⁸	A new flow field design for polymer electrolyte-based fuel cells. <i>Electrochemistry Communications</i> , 2007 , 9, 497-503	5.1	14 ⁰
427	Physical symmetry, spatial accuracy, and relaxation time of the lattice Boltzmann equation for microgas flows. <i>Journal of Applied Physics</i> , 2006 , 99, 074903	2.5	14 ⁰
42 ⁶	Effect of anode flow field design on the performance of liquid feed direct methanol fuel cells. <i>Electrochimica Acta</i> , 2005 , 50, 3243-3252	6.7	137
425	Gas/liquid two-phase flow regimes in rectangular channels with mini/micro gaps. <i>International Journal of Multiphase Flow</i> , 1999 , 25, 411-432	3.6	133
424	Mathematical modeling of a passive-feed DMFC with heat transfer effect. <i>Journal of Power Sources</i> , 2005 , 152, 122-130	8.9	132

423	First-Principles Study of Nitrogen-, Boron-Doped Graphene and Co-Doped Graphene as the Potential Catalysts in Nonaqueous LiD2 Batteries. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 6612-6618	3.8	131
422	A two-dimensional, two-phase mass transport model for liquid-feed DMFCs. <i>Electrochimica Acta</i> , 2007 , 52, 6125-6140	6.7	130
421	Lattice Boltzmann model for the convection-diffusion equation. <i>Physical Review E</i> , 2013 , 87, 063309	2.4	129
420	Advances and challenges in lithium-air batteries. <i>Applied Energy</i> , 2017 , 204, 780-806	10.7	128
419	Explicit finite-difference lattice Boltzmann method for curvilinear coordinates. <i>Physical Review E</i> , 2003 , 67, 066709	2.4	124
418	Critical transport issues for improving the performance of aqueous redox flow batteries. <i>Journal of Power Sources</i> , 2017 , 339, 1-12	8.9	123
417	Magnetic phase transitions, magnetocrystalline anisotropy, and crystal-field interactions in the RFe11Ti series (where R=Y, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er, or Tm). <i>Physical Review B</i> , 1993 , 47, 3231-3242	3.3	123
416	A high-performance dual-scale porous electrode for vanadium redox flow batteries. <i>Journal of Power Sources</i> , 2016 , 325, 329-336	8.9	122
415	Performance of a direct ethylene glycol fuel cell with an anion-exchange membrane. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 4329-4335	6.7	120
414	Stabilization of the palladium electrocatalyst with alloyed gold for ethanol oxidation. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 6490-6500	6.7	120
413	A nano-structured RuO2/NiO cathode enables the operation of non-aqueous lithium-air batteries in ambient air. <i>Energy and Environmental Science</i> , 2016 , 9, 1783-1793	35.4	119
412	Preparation and the physical/electrochemical properties of a Pt/C nanocatalyst stabilized by citric acid for polymer electrolyte fuel cells. <i>Electrochimica Acta</i> , 2005 , 50, 1973-1983	6.7	118
411	A simple method for the synthesis of PtRu nanoparticles on the multi-walled carbon nanotube for the anode of a DMFC. <i>Electrochimica Acta</i> , 2007 , 52, 2649-2656	6.7	117
410	Lattice Boltzmann modeling of transport phenomena in fuel cells and flow batteries. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2017 , 33, 555-574	2	117
409	Copper nanoparticle-deposited graphite felt electrodes for all vanadium redox flow batteries. <i>Applied Energy</i> , 2016 , 180, 386-391	10.7	113
408	Facile Preparation of AuPt Alloy Nanoparticles from Organometallic Complex Precursor. <i>Chemistry of Materials</i> , 2008 , 20, 1688-1690	9.6	112
407	A high-performance carbon nanoparticle-decorated graphite felt electrode for vanadium redox flow batteries. <i>Applied Energy</i> , 2016 , 176, 74-79	10.7	111
406	Alkaline direct oxidation fuel cell with non-platinum catalysts capable of converting glucose to electricity at high power output. <i>Journal of Power Sources</i> , 2011 , 196, 186-190	8.9	110

405	Ab initio prediction of a silicene and graphene heterostructure as an anode material for Li- and Na-ion batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 16377-16382	13	108
404	Electronic structure of Ni-based superconducting quaternary compounds: YNi ₂ B ₂ X (X=B, C, N, and O). <i>Physical Review B</i> , 1994 , 50, 4030-4033	3.3	107
403	Effect of methanol crossover on the cathode behavior of a DMFC: A half-cell investigation. <i>Electrochimica Acta</i> , 2007 , 52, 5266-5271	6.7	105
402	A high-performance flow-field structured iron-chromium redox flow battery. <i>Journal of Power Sources</i> , 2016 , 324, 738-744	8.9	104
401	A palladium-alloy deposited Nafion membrane for direct methanol fuel cells. <i>Journal of Membrane Science</i> , 2003 , 215, 327-336	9.6	104
400	A monolayer graphene [Nafion sandwich membrane for direct methanol fuel cells. <i>Journal of Power Sources</i> , 2016 , 311, 188-194	8.9	103
399	Synthesis and characterization of the Au-modified Pd cathode catalyst for alkaline direct ethanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 9693-9700	6.7	103
398	Synthesis and physical/electrochemical characterization of Pt/C nanocatalyst for polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2004 , 134, 1-6	8.9	103
397	A high power density and long cycle life vanadium redox flow battery. <i>Energy Storage Materials</i> , 2020 , 24, 529-540	19.4	103
396	Highly catalytic and stabilized titanium nitride nanowire array-decorated graphite felt electrodes for all vanadium redox flow batteries. <i>Journal of Power Sources</i> , 2017 , 341, 318-326	8.9	101
395	A high-rate and long cycle life solid-state lithium-air battery. <i>Energy and Environmental Science</i> , 2015 , 8, 3745-3754	35.4	100
394	Discrete effects on boundary conditions for the lattice Boltzmann equation in simulating microscale gas flows. <i>Physical Review E</i> , 2007 , 76, 056704	2.4	100
393	Performance of a vanadium redox flow battery with and without flow fields. <i>Electrochimica Acta</i> , 2014 , 142, 61-67	6.7	99
392	Development of PtRu-CeO ₂ /C anode electrocatalyst for direct methanol fuel cells. <i>Journal of Power Sources</i> , 2006 , 156, 345-354	8.9	99
391	Preparation of silica nanocomposite anion-exchange membranes with low vanadium-ion crossover for vanadium redox flow batteries. <i>Electrochimica Acta</i> , 2013 , 105, 584-592	6.7	98
390	Fundamental models for flow batteries. <i>Progress in Energy and Combustion Science</i> , 2015 , 49, 40-58	33.6	96
389	Effects of operating temperature on the performance of vanadium redox flow batteries. <i>Applied Energy</i> , 2015 , 155, 349-353	10.7	92
388	Synthesis of Active Platinum-Silver Alloy Electrocatalyst toward the Formic Acid Oxidation Reaction. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 17362-17367	3.8	92

- 387 A novel electrode architecture for passive direct methanol fuel cells. *Electrochemistry Communications*, **2007**, 9, 718-724 5.1 92
- 386 Thermal lattice Bhatnagar-Gross-Krook model for flows with viscous heat dissipation in the incompressible limit. *Physical Review E*, **2004**, 70, 066310 2.4 92
- 385 An experimental study of flow and heat transfer of supercritical carbon dioxide in multi-port mini channels under cooling conditions. *Chemical Engineering Science*, **2005**, 60, 3337-3345 4.4 92
- 384 A novel solid-state LiD2 battery with an integrated electrolyte and cathode structure. *Energy and Environmental Science*, **2015**, 8, 2782-2790 35.4 90
- 383 High performance of a carbon supported ternary PdIrNi catalyst for ethanol electro-oxidation in anion-exchange membrane direct ethanol fuel cells. *Energy and Environmental Science*, **2011**, 4, 1428 35.4 89
- 382 Sulfonation of carbon-nanotube supported platinum catalysts for polymer electrolyte fuel cells. *Journal of Power Sources*, **2008**, 176, 9-15 8.9 89
- 381 Modeling of water transport through the membrane electrode assembly for direct methanol fuel cells. *Journal of Power Sources*, **2008**, 178, 291-308 8.9 88
- 380 Carbon supported platinum-gold alloy catalyst for direct formic acid fuel cells. *Journal of Power Sources*, **2008**, 185, 857-861 8.9 88
- 379 Borophene and defective borophene as potential anchoring materials for lithium-sulfur batteries: a first-principles study. *Journal of Materials Chemistry A*, **2018**, 6, 2107-2114 13 87
- 378 A novel direct ethanol fuel cell with high power density. *Journal of Power Sources*, **2011**, 196, 6219-6222 8.9 87
- 377 Towards operating direct methanol fuel cells with highly concentrated fuel. *Journal of Power Sources*, **2010**, 195, 3451-3462 8.9 86
- 376 On capillary-driven flow and phase-change heat transfer in a porous structure heated by a finned surface: measurements and modeling. *International Journal of Heat and Mass Transfer*, **2000**, 43, 1141-1153 11.5 86
- 375 Ab initio prediction of borophene as an extraordinary anode material exhibiting ultrafast directional sodium diffusion for sodium-based batteries. *Science Bulletin*, **2016**, 61, 1138-1144 10.6 85
- 374 Effect of polymer binders in anode catalyst layer on performance of alkaline direct ethanol fuel cells. *Journal of Power Sources*, **2009**, 190, 223-229 8.9 85
- 373 Carbon-supported bimetallic PdIr catalysts for ethanol oxidation in alkaline media. *Electrochimica Acta*, **2010**, 55, 9179-9184 6.7 85
- 372 Accelerated lattice Boltzmann simulation using GPU and OpenACC with data management. *International Journal of Heat and Mass Transfer*, **2017**, 109, 577-588 4.9 84
- 371 A highly permeable and enhanced surface area carbon-cloth electrode for vanadium redox flow batteries. *Journal of Power Sources*, **2016**, 329, 247-254 8.9 83
- 370 In situ measurements of water crossover through the membrane for direct methanol fuel cells. *Journal of Power Sources*, **2007**, 168, 143-153 8.9 83

369	A vanadium redox flow battery model incorporating the effect of ion concentrations on ion mobility. <i>Applied Energy</i> , 2015 , 158, 157-166	10.7	82
368	Performance of an alkaline-acid direct ethanol fuel cell. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 9994-9999	6.7	82
367	Density Functional Theory Studies of the Structure Sensitivity of Ethanol Oxidation on Palladium Surfaces. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 10489-10497	3.8	82
366	Theoretical analysis of film condensation heat transfer inside vertical mini triangular channels. <i>International Journal of Heat and Mass Transfer</i> , 2002 , 45, 2829-2842	4.9	82
365	A three-dimensional pseudo-potential-based lattice Boltzmann model for multiphase flows with large density ratio and variable surface tension. <i>International Journal of Heat and Fluid Flow</i> , 2015 , 56, 261-271	2.4	81
364	Poly (vinyl alcohol)/3-(trimethylammonium) propyl-functionalized silica hybrid membranes for alkaline direct ethanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 2183-2189	6.7	80
363	Effects of the electric field on ion crossover in vanadium redox flow batteries. <i>Applied Energy</i> , 2015 , 145, 306-319	10.7	79
362	Carbon supported PtRh catalysts for ethanol oxidation in alkaline direct ethanol fuel cell. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 12911-12917	6.7	79
361	Two-dimensional two-phase thermal model for passive direct methanol fuel cells. <i>Journal of Power Sources</i> , 2008 , 175, 276-287	8.9	79
360	A small mono-polar direct methanol fuel cell stack with passive operation. <i>Journal of Power Sources</i> , 2008 , 178, 118-124	8.9	78
359	Transport phenomena in alkaline direct ethanol fuel cells for sustainable energy production. <i>Journal of Power Sources</i> , 2017 , 341, 199-211	8.9	77
358	A high-performance integrated electrode for anion-exchange membrane direct ethanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 7707-7713	6.7	77
357	An extension of Darcy's law to non-Stokes flow in porous media. <i>Chemical Engineering Science</i> , 2000 , 55, 2727-2735	4.4	76
356	Anion-exchange membrane direct ethanol fuel cells: Status and perspective. <i>Frontiers of Energy and Power Engineering in China</i> , 2010 , 4, 443-458		75
355	Effect of surface composition of Pt-Au alloy cathode catalyst on the performance of direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 8699-8706	6.7	75
354	Porous current collectors for passive direct methanol fuel cells. <i>Electrochimica Acta</i> , 2007 , 52, 4317-4324	6.7	74
353	Pressure drop characteristics of gas-liquid two-phase flow in vertical miniature triangular channels. <i>International Journal of Heat and Mass Transfer</i> , 2001 , 44, 2523-2534	4.9	74
352	Highly stable pyridinium-functionalized cross-linked anion exchange membranes for all vanadium redox flow batteries. <i>Journal of Power Sources</i> , 2016 , 331, 452-461	8.9	74

351	In-situ investigation of hydrogen evolution behavior in vanadium redox flow batteries. <i>Applied Energy</i> , 2017 , 190, 1112-1118	10.7	72
350	An alkaline direct ethanol fuel cell with a cation exchange membrane. <i>Energy and Environmental Science</i> , 2011 , 4, 2213	35.4	72
349	Effect of cell orientation on the performance of passive direct methanol fuel cells. <i>Journal of Power Sources</i> , 2006 , 157, 351-357	8.9	72
348	High-performance zinc bromine flow battery via improved design of electrolyte and electrode. <i>Journal of Power Sources</i> , 2017 , 355, 62-68	8.9	71
347	The dual role of hydrogen peroxide in fuel cells. <i>Science Bulletin</i> , 2015 , 60, 55-64	10.6	70
346	An experimental study of two phase flow and boiling heat transfer in bi-dispersed porous channels. <i>International Communications in Heat and Mass Transfer</i> , 2000 , 27, 293-302	5.8	70
345	First-Principles Investigations of the Working Mechanism of 2D h-BN as an Interfacial Layer for the Anode of Lithium Metal Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 1987-1994	9.5	69
344	Effects of SOC-dependent electrolyte viscosity on performance of vanadium redox flow batteries. <i>Applied Energy</i> , 2014 , 130, 139-147	10.7	69
343	Product analysis of the ethanol oxidation reaction on palladium-based catalysts in an anion-exchange membrane fuel cell environment. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 575-582	6.7	69
342	An alkaline direct ethylene glycol fuel cell with an alkali-doped polybenzimidazole membrane. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 10602-10606	6.7	68
341	Oscillatory pressure drops through a woven-screen packed column subjected to a cyclic flow. <i>Cryogenics</i> , 1996 , 36, 333-341	1.8	67
340	New DMFC Anode Structure Consisting of Platinum Nanowires Deposited into a Nafion Membrane. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 8128-8134	3.8	66
339	A lattice Boltzmann algorithm for electro-osmotic flows in microfluidic devices. <i>Journal of Chemical Physics</i> , 2005 , 122, 144907	3.9	66
338	Experimental investigations of the anode flow field of a micro direct methanol fuel cell. <i>Journal of Power Sources</i> , 2006 , 155, 291-296	8.9	66
337	Performance enhancement of iron-chromium redox flow batteries by employing interdigitated flow fields. <i>Journal of Power Sources</i> , 2016 , 327, 258-264	8.9	65
336	Modeling of lithium-sulfur batteries incorporating the effect of Li ₂ S precipitation. <i>Journal of Power Sources</i> , 2016 , 336, 115-125	8.9	65
335	An efficient Li ₂ S-based lithium-ion sulfur battery realized by a bifunctional electrolyte additive. <i>Nano Energy</i> , 2017 , 40, 240-247	17.1	65
334	Synthesis and characterization of crosslinked poly (vinyl alcohol)/layered double hydroxide composite polymer membranes for alkaline direct ethanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 18425-18432	6.7	65

333	Effect of cathode gas diffusion layer on water transport and cell performance in direct methanol fuel cells. <i>Journal of Power Sources</i> , 2007 , 171, 268-274	8.9	64
332	Analysis of Mass Transport of Methanol at the Anode of a Direct Methanol Fuel Cell. <i>Journal of the Electrochemical Society</i> , 2006 , 153, A1358	3.9	64
331	An analytical study of pulsating laminar heat convection in a circular tube with constant heat flux. <i>International Journal of Heat and Mass Transfer</i> , 2004 , 47, 5297-5301	4.9	64
330	Electrochemical Reactions in a DMFC under Open-Circuit Conditions. <i>Electrochemical and Solid-State Letters</i> , 2005 , 8, A52		64
329	Improved electrolyte for zinc-bromine flow batteries. <i>Journal of Power Sources</i> , 2018 , 384, 232-239	8.9	63
328	Comparison of different types of membrane in alkaline direct ethanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 14536-14542	6.7	63
327	Two-phase, mass-transport model for direct methanol fuel cells with effect of non-equilibrium evaporation and condensation. <i>Journal of Power Sources</i> , 2007 , 174, 136-147	8.9	63
326	Rational design of spontaneous reactions for protecting porous lithium electrodes in lithium-sulfur batteries. <i>Nature Communications</i> , 2019 , 10, 3249	17.4	62
325	Three-dimensional two-phase mass transport model for direct methanol fuel cells. <i>Electrochimica Acta</i> , 2007 , 53, 853-862	6.7	62
324	A numerical solution of laminar forced convection in a heated pipe subjected to a reciprocating flow. <i>International Journal of Heat and Mass Transfer</i> , 1995 , 38, 3011-3022	4.9	62
323	Performance of an alkaline direct ethanol fuel cell with hydrogen peroxide as oxidant. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 2320-2324	6.7	61
322	Highly efficient and ultra-stable boron-doped graphite felt electrodes for vanadium redox flow batteries. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 13244-13253	13	60
321	A high-performance supportless silver nanowire catalyst for anion exchange membrane fuel cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 1410-1416	13	60
320	In-situ Fabrication of a Freestanding Acrylate-based Hierarchical Electrolyte for Lithium-sulfur Batteries. <i>Electrochimica Acta</i> , 2016 , 213, 871-878	6.7	60
319	Anion exchange membranes for aqueous acid-based redox flow batteries: Current status and challenges. <i>Applied Energy</i> , 2019 , 233-234, 622-643	10.7	60
318	Fabrication of small-sized silver NPs/graphene sheets for high-quality surface-enhanced Raman scattering. <i>Journal of Colloid and Interface Science</i> , 2012 , 375, 30-4	9.3	59
317	Diphenylsilicate-incorporated Nafion [®] membranes for reduction of methanol crossover in direct methanol fuel cells. <i>Journal of Membrane Science</i> , 2006 , 283, 219-224	9.6	59
316	Transient Capillary Blocking in the Flow Field of a Micro-DMFC and Its Effect on Cell Performance. <i>Journal of the Electrochemical Society</i> , 2005 , 152, A1600	3.9	59

3 ¹⁵	Effect of the forcing term in the multiple-relaxation-time lattice Boltzmann equation on the shear stress or the strain rate tensor. <i>Physical Review E</i> , 2012 , 86, 016705	2.4	58
3 ¹⁴	Highly active, bi-functional and metal-free B 4 C-nanoparticle-modified graphite felt electrodes for vanadium redox flow batteries. <i>Journal of Power Sources</i> , 2017 , 365, 34-42	8.9	57
3 ¹³	Stabilization of the platinum-ruthenium electrocatalyst against the dissolution of ruthenium with the incorporation of gold. <i>Journal of Power Sources</i> , 2008 , 185, 166-170	8.9	57
3 ¹²	Pd and Pd-Cu Alloy Deposited Nafion Membranes for Reduction of Methanol Crossover in Direct Methanol Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2005 , 152, A1390	3.9	57
3 ¹¹	Performance of a vanadium redox flow battery with a VANADion membrane. <i>Applied Energy</i> , 2016 , 180, 353-359	10.7	57
3 ¹⁰	Towards a uniform distribution of zinc in the negative electrode for zinc bromine flow batteries. <i>Applied Energy</i> , 2018 , 213, 366-374	10.7	56
3 ⁰⁹	Modeling of ion transport through a porous separator in vanadium redox flow batteries. <i>Journal of Power Sources</i> , 2016 , 327, 67-76	8.9	56
3 ⁰⁸	A bi-functional cathode structure for alkaline-acid direct ethanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 13089-13095	6.7	56
3 ⁰⁷	Physicochemical properties of alkaline doped polybenzimidazole membranes for anion exchange membrane fuel cells. <i>Journal of Membrane Science</i> , 2015 , 493, 340-348	9.6	55
3 ⁰⁶	Charge carriers in alkaline direct oxidation fuel cells. <i>Energy and Environmental Science</i> , 2012 , 5, 7536	35.4	55
3 ⁰⁵	IMPLICIT-EXPLICIT FINITE-DIFFERENCE LATTICE BOLTZMANN METHOD FOR COMPRESSIBLE FLOWS. <i>International Journal of Modern Physics C</i> , 2007 , 18, 1961-1983	1.1	55
3 ⁰⁴	Experimental Study of Evaporative Heat Transfer in Sintered Copper Bidispersed Wick Structures. <i>Journal of Thermophysics and Heat Transfer</i> , 2002 , 16, 547-552	1.3	54
3 ⁰³	Mathematical modeling of alkaline direct ethanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 14067-14075	6.7	53
3 ⁰²	Understanding the performance degradation of anion-exchange membrane direct ethanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 4413-4421	6.7	53
3 ⁰¹	Mesoporous carbon with uniquely combined electrochemical and mass transport characteristics for polymer electrolyte membrane fuel cells. <i>RSC Advances</i> , 2013 , 3, 16-24	3.7	53
3 ⁰⁰	Effects of anode microporous layers made of carbon powder and nanotubes on water transport in direct methanol fuel cells. <i>Journal of Power Sources</i> , 2009 , 191, 304-311	8.9	53
2 ⁹⁹	Polyoxyethylene (PEO) PEO-Perovskite PEO Composite Electrolyte for All-Solid-State Lithium Metal Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 46930-46937	9.5	53
2 ⁹⁸	The effects of design parameters on the charge-discharge performance of iron-chromium redox flow batteries. <i>Applied Energy</i> , 2016 , 182, 204-209	10.7	52

297	Performance characterization of passive direct methanol fuel cells. <i>Journal of Power Sources</i> , 2007 , 167, 455-460	8.9	52
296	Effect of anode backing layer on the cell performance of a direct methanol fuel cell. <i>Electrochimica Acta</i> , 2006 , 51, 5524-5531	6.7	52
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