Yung-Eun Sung

List of Publications by Year in Descending Order

489 papers	21,995 citations	77 h-index	126 g-index
513 ext. papers	25,044 ext. citations	8.5 avg, IF	7 L-index

#	Paper	IF	Citations
489	High-performance and durable water electrolysis using a highly conductive and stable anion-exchange membrane. *International Journal of Hydrogen Energy*, **2022**, 47, 9115-9126	6.7	2
488	Structural Insights into Multi-Metal Spinel Oxide Nanoparticles for Boosting Oxygen Reduction Electrocatalysis (Adv. Mater. 8/2022). *Advanced Materials*, **2022**, 34, 2270065	24	
487	High-performance long-term driving proton exchange membrane fuel cell implemented with chemically ordered Pt-based alloy catalyst at ultra-low Pt loading. *Journal of Power Sources*, **2022**, 533, 231378	8.9	1
486	Hierarchical porous single-wall carbon nanohorns with atomic-level designed single-atom Co sites toward oxygen reduction reaction. *Nano Energy*, **2022**, 97, 107206	17.1	1
485	Structural modification of electrode for anion exchange membrane fuel cell by controlling ionomer dispersion. *International Journal of Energy Research*, **2022**, 46, 6471-6479	4.5	1
484	Operando Visualization of Morphological Evolution in Mg Metal Anode: Insight into Dendrite Suppression for Stable Mg Metal Batteries. *ACS Energy Letters*, **2022**, 7, 162-170	20.1	6
483	Three-Dimensional Unified Electrode Design Using a NiFeOOH Catalyst for Superior Performance and Durable Anion-Exchange Membrane Water Electrolyzers. *ACS Catalysis*, **2022**, 12, 135-145	13.1	3
482	Effect of Precursor Status on the Transition from Complex to Carbon Shell in a Platinum Core-Carbon Shell Catalyst.. *ACS Omega*, **2022**, 7, 15615-15624	3.9	
481	Understandings about functionalized porous carbon via scanning transmission x-ray microscopy (STXM) for high sulfur utilization in lithium-sulfur batteries. *Nano Energy*, **2022**, 107446	17.1	0
480	Differences in the Electrochemical Performance of Pt-Based Catalysts Used for Polymer Electrolyte Membrane Fuel Cells in Liquid Half- and Full-Cells. *Chemical Reviews*, **2021**,	68.1	15
479	Effect of iridium oxide as an additive on catalysts with different Pt contents in cell reversal conditions of polymer electrolyte membrane fuel cells. *International Journal of Hydrogen Energy*, **2021**, 47, 1863-1863	6.7	0
478	Structural Insights into Multi-Metal Spinel Oxide Nanoparticles for Boosting Oxygen Reduction Electrocatalysis. *Advanced Materials*, **2021**, e2107868	24	4
477	The impact of the catalyst layer structure on the performance of anion exchange membrane fuel cell. *Electrochimica Acta*, **2021**, 400, 139439	6.7	1
476	Electrochemical behavior of residual salts and an effective method to remove impurities in the formation of porous copper electrode for lithium metal batteries. *International Journal of Energy Research*, **2021**, 45, 10738-10745	4.5	0
475	Amphiphilic Ti porous transport layer for highly effective PEM unitized regenerative fuel cells. *Science Advances*, **2021**, 7,	14.3	5
474	Nonprecious Metal Bifunctional Catalysts for Oxygen Electrocatalysis Using a Metal-Organic Framework. *Bulletin of the Korean Chemical Society*, **2021**, 42, 919	1.2	3
473	Effect of anode iridium oxide content on the electrochemical performance and resistance to cell reversal potential of polymer electrolyte membrane fuel cells. *International Journal of Hydrogen Energy*, **2021**, 46, 14713-14723	6.7	2

472	Synthesis of Heteroatom (B, N, and O)-Doped Carbons via Chlorination of a Carbonitride□Boride Mixture: Influence of Boron Addition on Structure and Electrochemical Properties of Carbon. *Journal of Physical Chemistry C*, **2021**, 125, 13850-13861	3.8	0
471	Electrochemical Regeneration of Free Chlorine Treated Nickel Oxide Catalysts for Oxidation of Aqueous Pollutants. *Catalysis Today*, **2021**, 375, 514-521	5.3	2
470	High-performance proton-exchange membrane water electrolysis using a sulfonated poly(arylene ether sulfone) membrane and ionomer. *Journal of Membrane Science*, **2021**, 620, 118871	9.6	22
469	Anionic Redox Reactions in Cathodes for Sodium-Ion Batteries. *ChemElectroChem*, **2021**, 8, 625-643	4.3	4
468	Electrochemical recovery of LiOH from used CO2 adsorbents. *Catalysis Today*, **2021**, 359, 83-89	5.3	2
467	Self-supported mesoscopic tin oxide nanofilms for electrocatalytic reduction of carbon dioxide to formate. *Chemical Communications*, **2021**, 57, 3445-3448	5.8	2
466	Maximizing the Active Site Densities of Single-Atomic Fe□□ Electrocatalysts for High-Performance Anion Membrane Fuel Cells. *ACS Applied Energy Materials*, **2021**, 4, 1459-1466	6.1	7
465	Recent progress in in situ/operando analysis tools for oxygen electrocatalysis. *Journal Physics D: Applied Physics*, **2021**, 54, 173001	3	6
464	Effects of Photochemical Oxidation of the Carbonaceous Additives on Li-S Cell Performance. *ACS Applied Materials & Interfaces*, **2021**, 13, 41517-41523	9.5	1
463	Origami-Based Flexible and Simple Tubular Polymer Electrolyte Membrane Fuel Cell Stack. *ACS Energy Letters*, **2021**, 6, 3195-3202	20.1	2
462	Single-atom M□□ catalysts for oxygen reduction electrocatalysis. *Trends in Chemistry*, **2021**, 3, 779-794	14.8	13
461	Polymer electrolyte membrane unitized regenerative fuel cells: Operational considerations for achieving high round trip efficiency at low catalyst loading. *Applied Catalysis B: Environmental*, **2021**, 297, 120458	21.8	3
460	End-group cross-linked membranes based on highly sulfonated poly(arylene ether sulfone) with vinyl functionalized graphene oxide as a cross-linker and a filler for proton exchange membrane fuel cell application. *Journal of Polymer Science*, **2020**, 58, 3456-3466	2.4	2
459	Recent Advances in Electrochemical Oxygen Reduction to H2O2: Catalyst and Cell Design. *ACS Energy Letters*, **2020**, 5, 1881-1892	20.1	74
458	Sn(salen)-derived SnS nanoparticles embedded in N-doped carbon for high performance lithium-ion battery anodes. *Chemical Communications*, **2020**, 56, 8095-8098	5.8	17
457	Correction to □ecent Advances in Electrochemical Oxygen Reduction to H2O2: Catalyst and Cell Design□*ACS Energy Letters*, **2020**, 5, 2130-2130	20.1	2
456	Integrated porous cobalt oxide/cobalt anode with micro- and nano-pores for lithium ion battery. *Applied Surface Science*, **2020**, 525, 146592	6.7	10
455	Bi-MOF derived micro/meso-porous Bi@C nanoplates for high performance lithium-ion batteries. *Nanoscale*, **2020**, 12, 15214-15221	7.7	12

454	Design considerations for lithium-sulfur batteries: mass transport of lithium polysulfides. *Nanoscale* , **2020**, 12, 15466-15472	7.7	8
453	Understanding the Behaviors of MnO in Electrochemical Lithium Recovery: Key Limiting Factors and a Route to the Enhanced Performance. *Environmental Science & Technology*, **2020**, 54, 9044-9051	10.3	11
452	Epitaxially Strained CeO /Mn O Nanocrystals as an Enhanced Antioxidant for Radioprotection. *Advanced Materials*, **2020**, 32, e2001566	24	33
451	Color-switchable electrochromic Co(OH)2/Ni(OH)2 nanofilms with ultrafast kinetics for multifunctional smart windows. *Nano Energy*, **2020**, 72, 104720	17.1	29
450	Directly integrated all-solid-state flexible lithium batteries on polymer substrate. *Journal of Power Sources*, **2020**, 455, 227978	8.9	5
449	Operando Identification of the Chemical and Structural Origin of Li-Ion Battery Aging at Near-Ambient Temperature. *Journal of the American Chemical Society*, **2020**, 142, 13406-13414	16.4	8
448	Sulfonated poly(arylene ether sulfone) composite membrane having sulfonated polytriazole grafted graphene oxide for high-performance proton exchange membrane fuel cells. *Journal of Membrane Science*, **2020**, 612, 118428	9.6	18
447	Structural and Thermodynamic Understandings in Mn-Based Sodium Layered Oxides during Anionic Redox. *Advanced Science*, **2020**, 7, 2001263	13.6	21
446	Revisiting the strategies for stabilizing lithium metal anodes. *Journal of Materials Chemistry A*, **2020** , 8, 13874-13895	13	24
445	Capacitive Deionization: Rapid Inversion of Surface Charges in Heteroatom-Doped Porous Carbon: A Route to Robust Electrochemical Desalination (Adv. Funct. Mater. 9/2020). *Advanced Functional Materials*, **2020**, 30, 2070054	15.6	
444	Effect of different surface functional groups on carbon supports toward methanol electro-oxidation of Pt nanoparticles. *Journal of Electroanalytical Chemistry*, **2020**, 875, 113931	4.1	3
443	Atomic-level tuning of Co-N-C catalyst for high-performance electrochemical HO production. *Nature Materials*, **2020**, 19, 436-442	27	315
442	A small-strain niobium nitride anode with ordered mesopores for ultra-stable potassium-ion batteries. *Journal of Materials Chemistry A*, **2020**, 8, 3119-3127	13	19
441	Design and synthesis of multigrain nanocrystals via geometric misfit strain. *Nature*, **2020**, 577, 359-363	50.4	36
440	Spirobiindane-Based Poly(arylene ether sulfone) Ionomers for Alkaline Anion Exchange Membrane Fuel Cells. *Macromolecular Research*, **2020**, 28, 275-281	1.9	4
439	Enhancement of service life of polymer electrolyte fuel cells through application of nanodispersed ionomer. *Science Advances*, **2020**, 6, eaaw0870	14.3	25
438	Low-loading IrO2 supported on Pt for catalysis of PEM water electrolysis and regenerative fuel cells. *Applied Catalysis B: Environmental*, **2020**, 272, 118955	21.8	20
437	Electrokinetic Analysis of Poorly Conductive Electrocatalytic Materials. *ACS Catalysis*, **2020**, 10, 4990-4996	13.1	21

436	Rapid Inversion of Surface Charges in Heteroatom-Doped Porous Carbon: A Route to Robust Electrochemical Desalination. *Advanced Functional Materials*, **2020**, 30, 1909387	15.6	23
435	Boosting electrochemical stability of ultralow-Pt nanoparticle with Matryoshka-like structure in polymer electrolyte membrane fuel cells. *Applied Catalysis B: Environmental*, **2020**, 268, 118450	21.8	5
434	The keys for effective distribution of intergranular voids of peapod-like MnO@C core-shell for lithium ion batteries. *Journal of Alloys and Compounds*, **2020**, 817, 152760	5.7	4
433	Cross-linked sulfonated poly(ether ether ketone) membranes formed by poly(2,5-benzimidazole)-grafted graphene oxide as a novel cross-linker for direct methanol fuel cell applications. *Journal of Power Sources*, **2020**, 448, 227427	8.9	25
432	Controlling active sites of Fe□□ electrocatalysts for oxygen electrocatalysis. *Nano Energy*, **2020**, 78, 105395	17.1	14
431	Activity□Stability Relationship in [email□protected] Nanoparticles for Electrocatalysis. *ACS Energy Letters*, **2020**, 5, 2827-2834	20.1	22
430	Direct Synthesis of Intermetallic Platinum-Alloy Nanoparticles Highly Loaded on Carbon Supports for Efficient Electrocatalysis. *Journal of the American Chemical Society*, **2020**, 142, 14190-14200	16.4	62
429	Tunable Synthesis of N,C-Codoped Ti3+-Enriched Titanium Oxide Support for Highly Durable PEMFC Cathode. *ACS Catalysis*, **2020**, 10, 12080-12090	13.1	14
428	Poly(carbazole)-based anion-conducting materials with high performance and durability for energy conversion devices. *Energy and Environmental Science*, **2020**, 13, 3633-3645	35.4	52
427	Enhancing the of Performance of Lithium-Sulfur Batteries through Electrochemical Impregnation of Sulfur in Hierarchical Mesoporous Carbon Nanoparticles. *ChemElectroChem*, **2020**, 7, 3653-3655	4.3	4
426	Methanol Tolerant Pt-C Core-Shell Cathode Catalyst for Direct Methanol Fuel Cells. *ACS Applied Materials & Interfaces*, **2020**, 12, 44588-44596	9.5	16
425	Ball mill assisted synthesis of cobalt□ron sulfide/N-doped carbon for high performance asymmetric supercapacitors. *Journal of Applied Electrochemistry*, **2020**, 50, 1119-1128	2.6	6
424	Marginal Magnesium Doping for High-Performance Lithium Metal Batteries. *Advanced Energy Materials*, **2019**, 9, 1902278	21.8	26
423	Membrane/Electrode Interface Design for Effective Water Management in Alkaline Membrane Fuel Cells. *ACS Applied Materials & Interfaces*, **2019**, 11, 34805-34811	9.5	15
422	Three-dimensionally interconnected titanium foam anode for an energy-efficient zero gap-type chlor-alkali electrolyzer. *International Journal of Hydrogen Energy*, **2019**, 44, 16079-16086	6.7	6
421	Vertically aligned TiO2/ZnO nanotube arrays prepared by atomic layer deposition for photovoltaic applications. *Korean Journal of Chemical Engineering*, **2019**, 36, 1157-1163	2.8	8
420	Antiglare and antireflective coating of layer-by-layer SiO2 and TiZrO2 on surface-modified glass. *Applied Surface Science*, **2019**, 490, 278-282	6.7	3
419	Electrodeposited mesh-type dimensionally stable anode for oxygen evolution reaction in acidic and alkaline media. *Chemical Engineering Science*, **2019**, 206, 424-431	4.4	6

418	Bi-modified Pt supported on carbon black as electro-oxidation catalyst for 300 W formic acid fuel cell stack. *Applied Catalysis B: Environmental*, **2019**, 253, 187-195	21.8	31
417	Changes in the oxidation state of Pt single-atom catalysts upon removal of chloride ligands and their effect for electrochemical reactions. *Chemical Communications*, **2019**, 55, 6389-6392	5.8	37
416	Biomass-Derived Air Cathode Materials: Pore-Controlled S,N-Co-doped Carbon for Fuel Cells and Metal–Air Batteries. *ACS Catalysis*, **2019**, 9, 3389-3398	13.1	69
415	Freeze Casting is a Facile Method to Create Solid Solution Alloy Foams: Cu–Ni Alloy Foams via Freeze Casting. *Advanced Engineering Materials*, **2019**, 21, 1801265	3.5	2
414	Role and Potential of Metal Sulfide Catalysts in Lithium-Sulfur Battery Applications. *ChemCatChem*, **2019**, 11, 2373-2387	5.2	33
413	A study on electrode fabrication and operation variables affecting the performance of anion exchange membrane water electrolysis. *Journal of Industrial and Engineering Chemistry*, **2019**, 76, 410-418	6.3	42
412	Cross-linked highly sulfonated poly(arylene ether sulfone) membranes prepared by in-situ casting and thiol-ene click reaction for fuel cell application. *Journal of Membrane Science*, **2019**, 579, 70-78	9.6	41
411	Alternative Assembly of α-Synuclein Leading to Protein Film Formation and Its Application for Developing Polydiacetylene-Based Sensing Materials. *Langmuir*, **2019**, 35, 11923-11931	4	1
410	Iron sulfides with dopamine-derived carbon coating as superior performance anodes for sodium-ion batteries. *Nano Research*, **2019**, 12, 2609-2613	10	18
409	Achieving breakthrough performance caused by optimized metal foam flow field in fuel cells. *International Journal of Hydrogen Energy*, **2019**, 44, 22074-22084	6.7	23
408	A highly durable carbon-nanofiber-supported Pt–C core–shell cathode catalyst for ultra-low Pt loading proton exchange membrane fuel cells: facile carbon encapsulation. *Energy and Environmental Science*, **2019**, 12, 2820-2829	35.4	84
407	NaCrO2/Coffee Waste–Derived Nitrogen-doped Carbon Composite as High-Performance Cathode Material for Sodium Ion Batteries. *Bulletin of the Korean Chemical Society*, **2019**, 40, 857-862	1.2	2
406	Gas diffusion layer/flow-field unified membrane-electrode assembly in fuel cell using graphene foam. *Electrochimica Acta*, **2019**, 323, 134808	6.7	16
405	Development of high-performance membrane-electrode assembly in unitized regenerative fuel cells. *Journal of Industrial and Engineering Chemistry*, **2019**, 80, 527-534	6.3	5
404	Short-Chain Polyselenosulfide Copolymers as Cathode Materials for Lithium-Sulfur Batteries. *ACS Applied Materials & Interfaces*, **2019**, 11, 45785-45795	9.5	17
403	Rational Generation of Fe–Nx Active Sites in Fe–N–C Electrocatalysts Facilitated by Fe–N Coordinated Precursors for the Oxygen Reduction Reaction. *ChemCatChem*, **2019**, 11, 5982-5988	5.2	13
402	Synthesis and growth mechanism of carbon-supported nanoparticle catalysts by physical vapor deposition onto a liquid medium substrate. *Applied Surface Science*, **2019**, 471, 1083-1087	6.7	4
401	Acoustic emission analysis of the compressive deformation of iron foams and their biocompatibility study. *Materials Science and Engineering C*, **2019**, 97, 367-376	8.3	7

400	Recent Progress in the Design and Synthesis of Nitrides for Mesoscopic and Perovskite Solar Cells. *ChemSusChem*, **2019**, 12, 772-786	8.3	2
399	Ultra-low loading of IrO2 with an inverse-opal structure in a polymer-exchange membrane water electrolysis. *Nano Energy*, **2019**, 58, 158-166	17.1	38
398	Design Principle of Fe-N-C Electrocatalysts: How to Optimize Multimodal Porous Structures?. *Journal of the American Chemical Society*, **2019**, 141, 2035-2045	16.4	240
397	Spindle-like Fe7S8/N-doped carbon nanohybrids for high-performance sodium ion battery anodes. *Nano Research*, **2019**, 12, 695-700	10	34
396	High-performance anion-exchange membrane water electrolysis. *Electrochimica Acta*, **2019**, 295, 99-106	6.7	88
395	Nitrogen and sulfur co-doped graphene-like carbon sheets derived from coir pith bio-waste for symmetric supercapacitor applications. *Journal of Applied Electrochemistry*, **2019**, 49, 57-66	2.6	25
394	Optimization of cell components and operating conditions in primary and rechargeable zinc–air battery. *Journal of Industrial and Engineering Chemistry*, **2019**, 69, 161-170	6.3	10
393	Solvothermal-Derived S-Doped Graphene as an Anode Material for Sodium-Ion Batteries. *Advanced Science*, **2018**, 5, 1700880	13.6	91
392	Highly Efficient Bifacial Dye-Sensitized Solar Cells Employing Polymeric Counter Electrodes. *ACS Applied Materials & Interfaces*, **2018**, 10, 8611-8620	9.5	25
391	Understanding the Roles of Sulfur Dopants in Carbonaceous Electrocatalysts for the Oxygen Reduction Reaction: The Relationship between Catalytic Activity and Work Function. *ChemElectroChem*, **2018**, 5, 1905-1913	4.3	7
390	Simultaneous etching and transfer‐free multilayer graphene sheets derived from C60 thin films. *Journal of Industrial and Engineering Chemistry*, **2018**, 64, 70-75	6.3	1
389	Highly loaded PbS/Mn-doped CdS quantum dots for dual application in solar-to-electrical and solar-to-chemical energy conversion. *Applied Catalysis B: Environmental*, **2018**, 227, 409-417	21.8	45
388	Enhancement of mass transport in fuel cells using three-dimensional graphene foam as flow field. *Electrochimica Acta*, **2018**, 265, 488-496	6.7	38
387	Guided cracking of electrodes by stretching prism-patterned membrane electrode assemblies for high-performance fuel cells. *Scientific Reports*, **2018**, 8, 1257	4.9	24
386	Electrocatalysis: Electrochemically Synthesized Nanoporous Molybdenum Carbide as a Durable Electrocatalyst for Hydrogen Evolution Reaction (Adv. Sci. 1/2018). *Advanced Science*, **2018**, 5, 1870002	13.6	78
385	Highly Durable and Active Pt-Based Nanoscale Design for Fuel-Cell Oxygen-Reduction Electrocatalysts. *Advanced Materials*, **2018**, 30, e1704123	24	143
384	Room-Temperature Vapor Deposition of Cobalt Nitride Nanofilms for Mesoscopic and Perovskite Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1703114	21.8	23
383	A facile approach to improve the performance of alkaline anion exchange membrane fuel cells by reducing ionic resistance. *Journal of Industrial and Engineering Chemistry*, **2018**, 61, 437-444	6.3	7

382	Electrochemically Synthesized Nanoporous Molybdenum Carbide as a Durable Electrocatalyst for Hydrogen Evolution Reaction. *Advanced Science*, **2018**, 5, 1700601	13.6	35
381	Design of structural and functional nanomaterials for lithium-sulfur batteries. *Nano Today*, **2018**, 18, 35-64	17.9	82
380	Na/Vacancy Disordered P2-NaCoTiO: High-Energy and High-Power Cathode Materials for Sodium Ion Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 3562-3570	9.5	63
379	Effect of N-doped carbon coatings on the durability of highly loaded platinum and alloy catalysts with different carbon supports for polymer electrolyte membrane fuel cells. *International Journal of Hydrogen Energy*, **2018**, 43, 10070-10081	6.7	9
378	Nitrogen-rich hollow carbon spheres decorated with FeCo/fluorine-rich carbon for high performance symmetric supercapacitors. *Journal of Materials Chemistry A*, **2018**, 6, 7522-7531	13	25
377	Influence of TiO2 Particle Size on Dye-Sensitized Solar Cells Employing an Organic Sensitizer and a Cobalt(III/II) Redox Electrolyte. *Journal of Physical Chemistry C*, **2018**, 122, 7051-7060	3.8	24
376	Soft-template synthesis of mesoporous non-precious metal catalyst with Fe-N x /C active sites for oxygen reduction reaction in fuel cells. *Applied Catalysis B: Environmental*, **2018**, 222, 191-199	21.8	90
375	Electrochemically Synthesized Mesoscopic Nickel Oxide Films as Photocathodes for Dye-Sensitized Solar Cells. *ACS Applied Energy Materials*, **2018**, 1, 4178-4185	6.1	6
374	Direct formation of Pt catalyst on gas diffusion layer using sonochemical deposition method for the application in polymer electrolyte membrane fuel cell. *International Journal of Hydrogen Energy*, **2018**, 43, 10431-10439	6.7	4
373	Edge-Terminated MoS Nanoassembled Electrocatalyst via In Situ Hybridization with 3D Carbon Network. *Small*, **2018**, 14, e1802191	11	12
372	Cross-Linked Sulfonated Poly(arylene ether sulfone) Containing a Flexible and Hydrophobic Bishydroxy Perfluoropolyether Cross-Linker for High-Performance Proton Exchange Membrane. *ACS Applied Materials & Interfaces*, **2018**, 10, 21788-21793	9.5	30
371	Electrochemically synthesized nanostructured iron carbide/carbon composite as a low-cost counter electrode for dye-sensitized solar cells. *Journal of Power Sources*, **2018**, 396, 213-219	8.9	16
370	Biomass Waste, Coffee Grounds-derived Carbon for Lithium Storage. *Journal of Electrochemical Science and Technology*, **2018**, 9, 163-168	3.2	5
369	In-Situ Analysis of Overpotentials in Direct Methanol Fuel Cell by Using Membrane Electrode Assembly Composed of Three Electrodes. *Korean Journal of Materials Research*, **2018**, 28, 330-336	0.2	
368	Excellent Performances of Modified RuOs Bimetallic Materials as Anode Catalysts for Polymer Electrolyte Membrane Fuel Cells. *Electrocatalysis*, **2018**, 9, 352-358	2.7	2
367	Bioinspired Synthesis of Melaninlike Nanoparticles for Highly N-Doped Carbons Utilized as Enhanced CO2 Adsorbents and Efficient Oxygen Reduction Catalysts. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 2324-2333	8.3	10
366	Interface engineering for high-performance direct methanol fuel cells using multiscale patterned membranes and guided metal cracked layers. *Nano Energy*, **2018**, 43, 149-158	17.1	17
365	Porosity- and content-controlled metal/metal oxide/metal carbide@carbon (M/MO/MC@C) composites derived from MOFs: mechanism study and application for lithium-ion batteries. *New Journal of Chemistry*, **2018**, 42, 18678-18689	3.6	4

364	Tailoring the porosity of MOF-derived N-doped carbon electrocatalysts for highly efficient solar energy conversion. *Journal of Materials Chemistry A*, **2018**, 6, 20170-20183	13	18
363	Engineering Titanium Dioxide Nanostructures for Enhanced Lithium-Ion Storage. *Journal of the American Chemical Society*, **2018**, 140, 16676-16684	16.4	53
362	Vapor-Deposited Tungsten Carbide Nano-Dendrites as Sulfur-Tolerant Electrocatalysts for Quantum Dot-Sensitized Solar Cells. *Journal of the Electrochemical Society*, **2018**, 165, H954-H961	3.9	
361	From grass to battery anode: agricultural biomass hemp-derived carbon for lithium storage.. *RSC Advances*, **2018**, 8, 32231-32240	3.7	23
360	Application of spirobiindane-based microporous poly(ether sulfone)s as polymeric binder on solid alkaline exchange membrane fuel cells. *Journal of Membrane Science*, **2018**, 568, 67-75	9.6	21
359	Electrocatalysts: Highly Durable and Active Pt-Based Nanoscale Design for Fuel-Cell Oxygen-Reduction Electrocatalysts (Adv. Mater. 42/2018). *Advanced Materials*, **2018**, 30, 1870316	24	3
358	Graphitic carbon nitride-carbon nanofiber as oxygen catalyst in anion-exchange membrane water electrolyzer and rechargeable metal air cells. *Applied Catalysis B: Environmental*, **2018**, 237, 140-148	21.8	42
357	SnS/C nanocomposites for high-performance sodium ion battery anodes.. *RSC Advances*, **2018**, 8, 23847-23853	3.7	20
356	Tungsten Disulfide Catalysts Supported on a Carbon Cloth Interlayer for High Performance Li S Battery. *Advanced Energy Materials*, **2017**, 7, 1602567	21.8	233
355	Morphology and Gas-Sensing Properties of Tin Oxide Foams with Dual Pore Structure. *Journal of Electronic Materials*, **2017**, 46, 3748-3756	1.9	12
354	Factors in electrode fabrication for performance enhancement of anion exchange membrane water electrolysis. *Journal of Power Sources*, **2017**, 347, 283-290	8.9	35
353	The role of pre-defined microporosity in catalytic site formation for the oxygen reduction reaction in iron- and nitrogen-doped carbon materials. *Journal of Materials Chemistry A*, **2017**, 5, 4199-4206	13	24
352	A hierarchical cathode catalyst layer architecture for improving the performance of direct methanol fuel cell. *Applied Catalysis B: Environmental*, **2017**, 209, 91-97	21.8	13
351	High-Density Single-Layer Coating of Gold Nanoparticles onto Multiple Substrates by Using an Intrinsically Disordered Protein of Synuclein for Nanoapplications. *ACS Applied Materials & Interfaces*, **2017**, 9, 8519-8532	9.5	8
350	Large-Scale Synthesis of Carbon-Shell-Coated FeP Nanoparticles for Robust Hydrogen Evolution Reaction Electrocatalyst. *Journal of the American Chemical Society*, **2017**, 139, 6669-6674	16.4	369
349	Iron Oxide Photoelectrode with Multidimensional Architecture for Highly Efficient Photoelectrochemical Water Splitting. *Angewandte Chemie*, **2017**, 129, 6683-6688	3.6	15
348	Iron Oxide Photoelectrode with Multidimensional Architecture for Highly Efficient Photoelectrochemical Water Splitting. *Angewandte Chemie - International Edition*, **2017**, 56, 6583-6588	16.4	53
347	The Importance of Confined Sulfur Nanodomains and Adjoining Electron Conductive Pathways in Subreaction Regimes of Li-S Batteries. *Advanced Energy Materials*, **2017**, 7, 1700074	21.8	75

346	Lithium-Sulfur Batteries: Tungsten Disulfide Catalysts Supported on a Carbon Cloth Interlayer for High Performance Li S Battery (Adv. Energy Mater. 11/2017). *Advanced Energy Materials*, **2017**, 7,	21.8	2
345	Lithium manganese phosphate-carbon composite as a highly active and durable electrocatalyst for oxygen reduction reaction. *Electrochimica Acta*, **2017**, 245, 219-226	6.7	8
344	Sea Sand-Derived Magnesium Silicide as a Reactive Precursor for Silicon-Based Composite Electrodes of Lithium-Ion Battery. *Electrochimica Acta*, **2017**, 245, 893-901	6.7	9
343	Exploiting Lithium Ether Co-Intercalation in Graphite for High-Power Lithium-Ion Batteries. *Advanced Energy Materials*, **2017**, 7, 1700418	21.8	73
342	Self-Assembled Dendritic Pt Nanostructure with High-Index Facets as Highly Active and Durable Electrocatalyst for Oxygen Reduction. *ChemSusChem*, **2017**, 10, 3063-3068	8.3	17
341	Facile synthesis of metal hydroxide nanoplates and their application as lithium-ion battery anodes. *Journal of Materials Chemistry A*, **2017**, 5, 8744-8751	13	20
340	Low-Temperature and Gram-Scale Synthesis of Two-Dimensional Fe NC Carbon Sheets for Robust Electrochemical Oxygen Reduction Reaction. *Chemistry of Materials*, **2017**, 29, 2890-2898	9.6	45
339	Electrochemical synthesis of nanoporous tungsten carbide and its application as electrocatalysts for photoelectrochemical cells. *Nanoscale*, **2017**, 9, 5413-5424	7.7	22
338	Effect of Catalyst Layer Ionomer Content on Performance of Intermediate Temperature Proton Exchange Membrane Fuel Cells (IT-PEMFCs) under Reduced Humidity Conditions. *Electrochimica Acta*, **2017**, 224, 228-234	6.7	24
337	Hierarchical micro-lamella-structured 3D porous copper current collector coated with tin for advanced lithium-ion batteries. *Applied Surface Science*, **2017**, 399, 132-138	6.7	31
336	Synchrotron-based x-ray absorption spectroscopy for the electronic structure of LixMn0.8Fe0.2PO4 mesocrystal in Li+ batteries. *Nano Energy*, **2017**, 31, 495-503	17.1	22
335	Coffee Waste-Derived Hierarchical Porous Carbon as a Highly Active and Durable Electrocatalyst for Electrochemical Energy Applications. *ACS Applied Materials & Interfaces*, **2017**, 9, 41303-41313	9.5	49
334	Electrochemical Synthesis of NH3 at Low Temperature and Atmospheric Pressure Using a Fe2O3 Catalyst. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 10986-10995	8.3	183
333	Authors' reply to the comment on Novel synthesis of highly durable and active Pt catalyst encapsulated in nitrogen containing carbon for polymer electrolyte membrane fuel cell *Journal of Power Sources*, **2017**, 363, 482	8.9	
332	Hierarchical cobalt-nitride and -oxide co-doped porous carbon nanostructures for highly efficient and durable bifunctional oxygen reaction electrocatalysts. *Nanoscale*, **2017**, 9, 15846-15855	7.7	25
331	Multidimensional Anodized Titanium Foam Photoelectrode for Efficient Utilization of Photons in Mesoscopic Solar Cells. *Small*, **2017**, 13, 1701458	11	10
330	Novel synthesis of highly durable and active Pt catalyst encapsulated in nitrogen containing carbon for polymer electrolyte membrane fuel cell. *Journal of Power Sources*, **2017**, 362, 228-235	8.9	19
329	A facile synthetic strategy for iron, aniline-based non-precious metal catalysts for polymer electrolyte membrane fuel cells. *Scientific Reports*, **2017**, 7, 5396	4.9	24

328	Insights on the delithiation/lithiation reactions of LixMn0.8Fe0.2PO4 mesocrystals in Li+ batteries by in situ techniques. *Nano Energy*, **2017**, 39, 371-379	17.1	26
327	Rhodium□in Binary Nanoparticle□A Strategy to Develop an Alternative Electrocatalyst for Oxygen Reduction. *ACS Catalysis*, **2017**, 7, 5796-5801	13.1	16
326	Reduction of methanol crossover by thin cracked metal barriers at the interface between membrane and electrode in direct methanol fuel cells. *Journal of Power Sources*, **2017**, 363, 153-160	8.9	12
325	Enhancing p-Type Thermoelectric Performances of Polycrystalline SnSe via Tuning Phase Transition Temperature. *Journal of the American Chemical Society*, **2017**, 139, 10887-10896	16.4	79
324	A Review on Membranes and Catalysts for Anion Exchange Membrane Water Electrolysis Single Cells. *Journal of Electrochemical Science and Technology*, **2017**, 8, 183-196	3.2	27
323	A Review of Industrially Developed Components and Operation Conditions for Anion Exchange Membrane Water Electrolysis. *Journal of Electrochemical Science and Technology*, **2017**, 8, 265-273	3.2	11
322	Bismuth oxide as a high capacity anode material for sodium-ion batteries. *Chemical Communications* , **2016**, 52, 11775-11778	5.8	44
321	Application of Three-Dimensionally Ordered Mesoporous TiO2 Particles as Dual-function Scatterers in Dye-Sensitized Solar Cells. *Electrochimica Acta*, **2016**, 222, 1079-1085	6.7	7
320	Three-dimensional carbon foam/N-doped graphene@MoS2 hybrid nanostructures as effective electrocatalysts for the hydrogen evolution reaction. *Journal of Materials Chemistry A*, **2016**, 4, 12720-12725	13	75
319	Enhanced Light Harvesting in Mesoscopic Solar Cells by Multilevel Multiscale Patterned Photoelectrodes with Superpositioned Optical Properties. *Advanced Functional Materials*, **2016**, 26, 6584-6592	15.6	15
318	Charting the Outer Helmholtz Plane and the Role of Nitrogen Doping in the Oxygen Reduction Reaction Conducted in Alkaline Media Using Nonprecious Metal Catalysts. *Journal of Physical Chemistry C*, **2016**, 120, 24511-24520	3.8	3
317	Enhanced Cycling Properties of Carbon-Coated SnO2□Co3O4 Composite Nanowires for Lithium-Ion Batteries. *Journal of Nanoscience and Nanotechnology*, **2016**, 16, 10558-10562	1.3	5
316	Wrinkled silica/titania nanoparticles with tunable interwrinkle distances for efficient utilization of photons in dye-sensitized solar cells. *Scientific Reports*, **2016**, 6, 30829	4.9	25
315	3D macroporous electrode and high-performance in lithium-ion batteries using SnO2 coated on Cu foam. *Scientific Reports*, **2016**, 6, 18626	4.9	44
314	Facile synthesis of platinum alloy electrocatalyst via aluminum reducing agent and the effect of post heat treatment for oxygen reduction reaction. *International Journal of Hydrogen Energy*, **2016**, 41, 22952-22962	6.7	4
313	High-performance Fuel Cell with Stretched Catalyst-Coated Membrane: One-step Formation of Cracked Electrode. *Scientific Reports*, **2016**, 6, 26503	4.9	35
312	Conversion Reaction-Based Oxide Nanomaterials for Lithium Ion Battery Anodes. *Small*, **2016**, 12, 2146-72	12	310
311	Carbon-supported Pt-RuS2 nanocomposite as hydrogen oxidation reaction catalysts for fuel cells. *Journal of Applied Electrochemistry*, **2016**, 46, 77-83	2.6	3

310	Improved electrochemical performance of a three-dimensionally ordered mesoporous carbon based lithium ion battery using vinylene carbonate. *Materials Today Communications*, **2016**, 6, 69-73	2.5	6
309	Enhancement of electrochemical properties by polysulfide trapping in a graphene-coated sulfur cathode on patterned current collector. *Chemical Communications*, **2016**, 52, 3203-6	5.8	14
308	Organic-inorganic hybrid PtCo nanoparticle with high electrocatalytic activity and durability for oxygen reduction. *NPG Asia Materials*, **2016**, 8, e237-e237	10.3	47
307	Effect of post heat-treatment of composition-controlled PdFe nanoparticles for oxygen reduction reaction. *Journal of Power Sources*, **2016**, 303, 234-242	8.9	30
306	Conformal Polymeric Multilayer Coatings on Sulfur Cathodes via the Layer-by-Layer Deposition for High Capacity Retention in Li□S Batteries. *ACS Macro Letters*, **2016**, 5, 471-475	6.6	27
305	Simple size control of TiO2 nanoparticles and their electrochemical performance: emphasizing the contribution of the surface area to lithium storage at high-rates. *Nanoscale*, **2016**, 8, 5688-95	7.7	16
304	Understanding the Bifunctional Effect for Removal of CO Poisoning: Blend of a Platinum Nanocatalyst and Hydrous Ruthenium Oxide as a Model System. *ACS Catalysis*, **2016**, 6, 2398-2407	13.1	64
303	Morphological Study of Directionally Freeze-Cast Nickel Foams. *Metallurgical and Materials Transactions E*, **2016**, 3, 46-54		6
302	Activation of micropore-confined sulfur within hierarchical porous carbon for lithium-sulfur batteries. *Journal of Power Sources*, **2016**, 306, 617-622	8.9	35
301	Effect of PEDOT:PSS Coating on Manganese Oxide Nanowires for Lithium Ion Battery Anodes. *Electrochimica Acta*, **2016**, 187, 340-347	6.7	35
300	Enhancement of cycle performance of Li-S batteries by redistribution of sulfur. *Chemical Communications*, **2016**, 52, 1198-201	5.8	18
299	A simple synthesis of urchin-like Pt-Ni bimetallic nanostructures as enhanced electrocatalysts for the oxygen reduction reaction. *Chemical Communications*, **2016**, 52, 597-600	5.8	44
298	Elemental Sulfur and Molybdenum Disulfide Composites for Li-S Batteries with Long Cycle Life and High-Rate Capability. *ACS Applied Materials & Interfaces*, **2016**, 8, 13437-48	9.5	92
297	Scaffold-Like Titanium Nitride Nanotubes with a Highly Conductive Porous Architecture as a Nanoparticle Catalyst Support for Oxygen Reduction. *ACS Catalysis*, **2016**, 6, 3914-3920	13.1	42
296	Graphene quantum dots: structural integrity and oxygen functional groups for high sulfur/sulfide utilization in lithium sulfur batteries. *NPG Asia Materials*, **2016**, 8, e272-e272	10.3	78
295	Preparation of onion-like Pt-terminated Pt□u bimetallic nano-sized electrocatalysts for oxygen reduction reaction in fuel cells. *Journal of Power Sources*, **2016**, 316, 124-131	8.9	21
294	Methanol Electro-Oxidation on the Pt Surface: Revisiting the Cyclic Voltammetry Interpretation. *Journal of Physical Chemistry C*, **2016**, 120, 9028-9035	3.8	190
293	Nitrogen and boron co-doped hollow carbon catalyst for the oxygen reduction reaction. *Carbon*, **2016**, 105, 1-7	10.4	48

292	Prism-patterned Nafion membrane for enhanced water transport in polymer electrolyte membrane fuel cell. *Journal of Power Sources*, **2016**, 317, 19-24	8.9	20
291	Facile Multiscale Patterning by Creep-Assisted Sequential Imprinting and Fuel Cell Application. *ACS Applied Materials & Interfaces*, **2016**, 8, 11459-65	9.5	22
290	Light Harvesting: Enhanced Light Harvesting in Mesoscopic Solar Cells by Multilevel Multiscale Patterned Photoelectrodes with Superpositioned Optical Properties (Adv. Funct. Mater. 36/2016). *Advanced Functional Materials*, **2016**, 26, 6583-6583	15.6	2
289	Functional link between surface low-coordination sites and the electrochemical durability of Pt nanoparticles. *Journal of Power Sources*, **2016**, 334, 52-57	8.9	11
288	Modified polyol method for a highly alloyed PtRu/C electrocatalyst: Effect of hot injection of metal precursor and NaOH. *Materials Chemistry and Physics*, **2016**, 183, 11-17	4.4	7
287	Highly uniform and vertically aligned SnO2 nanochannel arrays for photovoltaic applications. *Nanoscale*, **2015**, 7, 8368-77	7.7	33
286	Heterogeneous rhodium□in nanoparticles: highly active and durable electrocatalysts for the oxidation of ethanol. *Journal of Materials Chemistry A*, **2015**, 3, 17130-17134	13	12
285	Effects of Ag-embedment on electronic and ionic conductivities of LiMnPO4 and its performance as a cathode for lithium-ion batteries. *Nanoscale*, **2015**, 7, 13860-7	7.7	18
284	An electrochemical approach to graphene oxide coated sulfur for long cycle life. *Nanoscale*, **2015**, 7, 13249-55	7.7	19
283	Understanding Interface between Electrode and Electrolyte: Organic/Inorganic Hybrid Design for Fast Ion Conductivity. *Journal of Physical Chemistry C*, **2015**, 119, 9169-9176	3.8	8
282	Elucidating Relationships between Structural Properties of Nanoporous Carbonaceous Shells and Electrochemical Performances of [email□protected] Anodes for Lithium-Ion Batteries. *Journal of Physical Chemistry C*, **2015**, 119, 10255-10265	3.8	14
281	How Pore Parameters Affect Li Ion Depletion in Mesoporous Materials for Lithium-Ion Batteries. *Journal of Physical Chemistry C*, **2015**, 119, 7604-7613	3.8	12
280	Soft template strategy to synthesize iron oxide-titania yolk-shell nanoparticles as high-performance anode materials for lithium-ion battery applications. *Chemistry - A European Journal*, **2015**, 21, 7954-61	4.8	12
279	Development of Highly Stable and Mass Transfer-Enhanced Cathode Catalysts: Support-Free Electrospun Intermetallic FePt Nanotubes for Polymer Electrolyte Membrane Fuel Cells. *Advanced Energy Materials*, **2015**, 5, 1402093	21.8	54
278	Hollow Nanostructured Metal Silicates with Tunable Properties for Lithium Ion Battery Anodes. *ACS Applied Materials & Interfaces*, **2015**, 7, 25725-32	9.5	56
277	Copolymerization of Polythiophene and Sulfur To Improve the Electrochemical Performance in Lithium□Sulfur Batteries. *Chemistry of Materials*, **2015**, 27, 7011-7017	9.6	99
276	Multiplex lithography for multilevel multiscale architectures and its application to polymer electrolyte membrane fuel cell. *Nature Communications*, **2015**, 6, 8484	17.4	49
275	Hybrid Cellular Nanosheets for High-Performance Lithium-Ion Battery Anodes. *Journal of the American Chemical Society*, **2015**, 137, 11954-61	16.4	100

274	Nanosized Pt□a alloy electrocatalysts with high activity and stability for the oxygen reduction reaction. *Surface Science*, **2015**, 631, 272-277	1.8	9
273	Titanium Silicide Coated Porous Silicon Nanospheres as Anode Materials for Lithium Ion Batteries. *Electrochimica Acta*, **2015**, 151, 256-262	6.7	42
272	Synthesis and dielectric properties of strontium substituted calcium niobate ceramics. *Journal of Alloys and Compounds*, **2015**, 622, 373-378	5.7	4
271	Alveoli-Inspired Facile Transport Structure of N-Doped Porous Carbon for Electrochemical Energy Applications. *Advanced Energy Materials*, **2015**, 5, 1401309	21.8	89
270	The Electrochemical Analysis using Critical Parameters in Li□ Battery. *Bulletin of the Korean Chemical Society*, **2015**, 36, 2596-2600	1.2	5
269	Long Vertically Aligned TiO2 Nanotube Electrodes Prepared via Two-Step Anodization for Highly Efficient Photovoltaics. *Israel Journal of Chemistry*, **2015**, 55, 1034-1040	3.4	4
268	Preparation of WO3 Thin Film by Successive Dip Coating for Electrochromic and Photoelectrochromic Devices. *Bulletin of the Korean Chemical Society*, **2015**, 36, 2213-2220	1.2	5
267	Metal-coated Polyether Ether Ketone Monopolar Plates for Polymer Electrolyte Membrane Fuel Cell. *Bulletin of the Korean Chemical Society*, **2015**, 36, 2815-2818	1.2	
266	Facile and gram-scale synthesis of metal-free catalysts: toward realistic applications for fuel cells. *Scientific Reports*, **2015**, 5, 8376	4.9	44
265	Realization of Both High-Performance and Enhanced Durability of Fuel Cells: Pt-Exoskeleton Structure Electrocatalysts. *ACS Applied Materials & Interfaces*, **2015**, 7, 14053-63	9.5	11
264	Synthesis of Pt and bimetallic PtPd nanostructures on Au nanoparticles for use as methanol tolerant oxygen reduction reaction catalysts. *New Journal of Chemistry*, **2015**, 39, 6034-6039	3.6	14
263	Electronic structure modification of platinum on titanium nitride resulting in enhanced catalytic activity and durability for oxygen reduction and formic acid oxidation. *Applied Catalysis B: Environmental*, **2015**, 174-175, 35-42	21.8	50
262	Enhanced Methanol Tolerance of Highly Pd rich Pd-Pt Cathode Electrocatalysts in Direct Methanol Fuel Cells. *Electrochimica Acta*, **2015**, 164, 235-242	6.7	45
261	Reactively sputtered nickel nitride as electrocatalytic counter electrode for dye- and quantum dot-sensitized solar cells. *Scientific Reports*, **2015**, 5, 10450	4.9	66
260	Highly Durable and Active PtFe Nanocatalyst for Electrochemical Oxygen Reduction Reaction. *Journal of the American Chemical Society*, **2015**, 137, 15478-85	16.4	393
259	SnO2 nanotube arrays embedded in a carbon layer for high-performance lithium-ion battery applications. *New Journal of Chemistry*, **2015**, 39, 2541-2546	3.6	9
258	Lithium recovery from brine using a □MnO2/activated carbon hybrid supercapacitor system. *Chemosphere*, **2015**, 125, 50-6	8.4	105
257	Structure dependent active sites of NixSy as electrocatalysts for hydrogen evolution reaction. *Nanoscale*, **2015**, 7, 5157-63	7.7	100

256	Inhibition of CO poisoning on Pt catalyst coupled with the reduction of toxic hexavalent chromium in a dual-functional fuel cell. *Scientific Reports*, **2014**, 4, 7450	4.9	52
255	Single source precursor-based solvothermal synthesis of heteroatom-doped graphene and its energy storage and conversion applications. *Scientific Reports*, **2014**, 4, 5639	4.9	92
254	Inverse Vulcanization of Elemental Sulfur to Prepare Polymeric Electrode Materials for Li-S Batteries.. *ACS Macro Letters*, **2014**, 3, 229-232	6.6	217
253	Edge-exposed MoS2 nano-assembled structures as efficient electrocatalysts for hydrogen evolution reaction. *Nanoscale*, **2014**, 6, 2131-6	7.7	225
252	In Situ Hydrothermal Synthesis of Mn3O4 Nanoparticles on Nitrogen-doped Graphene as High-Performance Anode materials for Lithium Ion Batteries. *Electrochimica Acta*, **2014**, 120, 452-459	6.7	124
251	Carbon treated self-ordered TiO2 nanotube arrays with enhanced lithium-ion intercalation performance. *Journal of Alloys and Compounds*, **2014**, 597, 275-281	5.7	16
250	Facile synthesis of nanostructured carbon nanotube/iron oxide hybrids for lithium-ion battery anodes. *RSC Advances*, **2014**, 4, 37365-37370	3.7	18
249	3D interconnected SnO2-coated Cu foam as a high-performance anode for lithium-ion battery applications. *RSC Advances*, **2014**, 4, 58059-58063	3.7	32
248	Facile synthesis of carbon supported metal nanoparticles via sputtering onto a liquid substrate and their electrochemical application. *RSC Advances*, **2014**, 4, 38575	3.7	18
247	Tuning the oxygen reduction activity of the Pt-Ni nanoparticles upon specific anion adsorption by varying heat treatment atmospheres. *Physical Chemistry Chemical Physics*, **2014**, 16, 13726-32	3.6	15
246	Two-dimensional assemblies of ultrathin titanate nanosheets for lithium ion battery anodes. *RSC Advances*, **2014**, 4, 12087	3.7	19
245	Blue TiO2 Nanotube Array as an Oxidant Generating Novel Anode Material Fabricated by Simple Cathodic Polarization. *Electrochimica Acta*, **2014**, 141, 113-119	6.7	70
244	Enhancement of hydrogen production and power density in a bio-reformed formic acid fuel cell (BrFAFC) using genetically modified Enterobacter asburiae SNU-1. *International Journal of Hydrogen Energy*, **2014**, 39, 11731-11737	6.7	8
243	Plasmon-enhanced dye-sensitized solar cells using SiO2 spheres decorated with tightly assembled silver nanoparticles. *RSC Advances*, **2014**, 4, 19851	3.7	15
242	Origin of the Enhanced Electrocatalysis for Thermally Controlled Nanostructure of Bimetallic Nanoparticles. *Journal of Physical Chemistry C*, **2014**, 118, 9939-9945	3.8	22
241	Effect of particle shape on the electrochemical properties of CaSnO3 as an anode material for lithium-ion batteries. *Journal of Applied Electrochemistry*, **2014**, 44, 789-796	2.6	4
240	Three-dimensional hemisphere-structured LiSn0.0125Mn1.975O4 thin-film cathodes. *Electrochemistry Communications*, **2014**, 43, 36-39	5.1	7
239	Next-generation polymer-electrolyte-membrane fuel cells using titanium foam as gas diffusion layer. *ACS Applied Materials & Interfaces*, **2014**, 6, 7665-71	9.5	34

238	Effect of surface composition of PtFe nanoparticles for oxygen reduction reactions. *International Journal of Hydrogen Energy*, **2014**, 39, 14751-14759	6.7	25
237	Pt-based nanoarchitecture and catalyst design for fuel cell applications. *Nano Today*, **2014**, 9, 433-456	17.9	204
236	Si7Ti4Ni4 as a buffer material for Si and its electrochemical study for lithium ion batteries. *Journal of Power Sources*, **2014**, 246, 729-735	8.9	25
235	TiO2-core/Sn-shell Nanotube Arrays Based on Monolithic Negative Electrode for Li-ion Batteries. *Electrochimica Acta*, **2014**, 130, 600-605	6.7	18
234	Anode electrode with carbon buffer layer for improving methanol oxidation reaction in direct methanol fuel cell. *Applied Surface Science*, **2014**, 290, 246-251	6.7	17
233	PtPdCo ternary electrocatalyst for methanol tolerant oxygen reduction reaction in direct methanol fuel cell. *Applied Catalysis B: Environmental*, **2014**, 154-155, 309-315	21.8	47
232	Dye-sensitized solar cells with silica-coated quantum dot-embedded nanoparticles used as a light-harvesting layer. *New Journal of Chemistry*, **2014**, 38, 910	3.6	5
231	Preparation of uniform carbon nanoshell coated monodispersed iron oxide nanocrystals as an anode material for lithium-ion batteries. *Electrochimica Acta*, **2014**, 136, 47-51	6.7	7
230	Poly(3,4-Ethylenedioxythiophene) Inverse Opal Electrode Fabricated from Poly(3,4-Ethylenedioxythiophene):Poly(Styrene Sulfonate)-Filled Polystyrene Template for Dye-Sensitized Solar Cells. *Electrochimica Acta*, **2014**, 137, 661-667	6.7	20
229	Highly ordered and vertically oriented TiO2/Al2O3 nanotube electrodes for application in dye-sensitized solar cells. *Nanotechnology*, **2014**, 25, 504003	3.4	34
228	Nickel-nitride-coated nickel foam as a counter electrode for dye-sensitized solar cells. *Surface and Coatings Technology*, **2014**, 259, 560-569	4.4	40
227	Poly(arylene ether sulfone) with tetra(quaternary ammonium) moiety in the polymer repeating unit for application in solid alkaline exchange membrane fuel cells. *International Journal of Hydrogen Energy*, **2014**, 39, 21223-21230	6.7	24
226	Analysis of the spatially distributed performance degradation of a polymer electrolyte membrane fuel cell stack. *International Journal of Hydrogen Energy*, **2014**, 39, 16548-16555	6.7	2
225	High performance direct methanol fuel cells with micro/nano-patterned polymer electrolyte membrane. *Journal of Membrane Science*, **2014**, 467, 36-40	9.6	11
224	Novel method of powder-based processing of copper nanofoams for their potential use in energy applications. *Materials Chemistry and Physics*, **2014**, 145, 6-11	4.4	24
223	Electrocatalyst for the Oxygen Reduction Reaction: from the Nanoscale to the Macroscale. *Journal of Electrochemical Science and Technology*, **2014**, 5, 65-72	3.2	2
222	Electrocatalyst for the Oxygen Reduction Reaction: from the Nanoscale to the Macroscale. *Journal of Electrochemical Science and Technology*, **2014**, 5, 65-72	3.2	5
221	Highly electrocatalytic hybrid silver nanowire-graphene counter electrode for Co3+/2+ redox mediator based dye-sensitized solar cells. *Synthetic Metals*, **2013**, 177, 77-81	3.6	8

220	A chemically activated graphene-encapsulated LiFePO4 composite for high-performance lithium ion batteries. *Nanoscale*, **2013**, 5, 8647-55	7.7	106
219	Pd nanocrystals on WC as a synergistic electrocatalyst for hydrogen oxidation reactions. *Physical Chemistry Chemical Physics*, **2013**, 15, 2125-30	3.6	12
218	Chemical tuning of electrochemical properties of Pt-skin surfaces for highly active oxygen reduction reactions. *Physical Chemistry Chemical Physics*, **2013**, 15, 17079-83	3.6	25
217	Correlation between platinum nanoparticle surface rearrangement induced by heat treatment and activity for an oxygen reduction reaction. *Physical Chemistry Chemical Physics*, **2013**, 15, 13658-63	3.6	25
216	Self-assembled Fe3O4 nanoparticle clusters as high-performance anodes for lithium ion batteries via geometric confinement. *Nano Letters*, **2013**, 13, 4249-56	11.5	302
215	Thermal stability of charged LiNi0.5Co0.2Mn0.3O2 cathode for Li-ion batteries investigated by synchrotron based in situ X-ray diffraction. *Journal of Alloys and Compounds*, **2013**, 562, 219-223	5.7	57
214	Ordered macroporous platinum electrode and enhanced mass transfer in fuel cells using inverse opal structure. *Nature Communications*, **2013**, 4, 2473	17.4	184
213	Effect of Se modification on RuSey/C electrocatalyst for oxygen reduction with phosphoric acid. *Electrochemistry Communications*, **2013**, 27, 46-49	5.1	6
212	Electrochemical determination of the surface composition of Pd□Pt core□shell nanoparticles. *Electrochemistry Communications*, **2013**, 28, 114-117	5.1	5
211	Supported core@shell electrocatalysts for fuel cells: close encounter with reality. *Scientific Reports*, **2013**, 3, 1309	4.9	56
210	The use of elemental sulfur as an alternative feedstock for polymeric materials. *Nature Chemistry*, **2013**, 5, 518-24	17.6	748
209	Improved electrocatalytic stability in ethanol oxidation by microwave-assisted selective deposition of SnO2 and Pt onto carbon. *RSC Advances*, **2013**, 3, 7001	3.7	14
208	Structure-Properties Relationship in Iron Oxide-Reduced Graphene Oxide Nanostructures for Li-Ion Batteries. *Advanced Functional Materials*, **2013**, 23, 4293-4305	15.6	84
207	Tailoring the Electronic Structure of Nanoelectrocatalysts Induced by a Surface-Capping Organic Molecule for the Oxygen Reduction Reaction. *Journal of Physical Chemistry Letters*, **2013**, 4, 1304-9	6.4	41
206	Galvanic replacement reactions in metal oxide nanocrystals. *Science*, **2013**, 340, 964-8	33.3	421
205	Highly selective lithium recovery from brine using a □MnO2-Ag battery. *Physical Chemistry Chemical Physics*, **2013**, 15, 7690-5	3.6	119
204	Synthesis and characterization of poly(benzimidazolium) membranes for anion exchange membrane fuel cells. *Polymer Bulletin*, **2013**, 70, 2619-2631	2.4	22
203	High-Performance Hybrid Catalyst with Selectively Functionalized Carbon by Temperature-Directed Switchable Polymer. *Chemistry of Materials*, **2013**, 25, 1526-1532	9.6	27

202	Continuous activation of Li2MnO3 component upon cycling in Li1.167Ni0.233Co0.100Mn0.467Mo0.033O2 cathode material for lithium ion batteries. *Journal of Materials Chemistry A*, **2013**, 1, 2833	13	99
201	Enhancement of oxygen reduction reaction on PtAu nanoparticles via CO induced surface Pt enrichment. *Applied Catalysis B: Environmental*, **2013**, 129, 375-381	21.8	40
200	The effects of radio frequency sputtering of TiO2 on Li[Li0.07Nio.38Co0.15Mn0.4]O2 cathode for lithium ion batteries. *Journal of Nanoscience and Nanotechnology*, **2013**, 13, 7924-31	1.3	6
199	Effect of particle size of PtRu nanoparticles embedded in WO3 on electrocatalysis. *Journal of Nanoscience and Nanotechnology*, **2013**, 13, 3591-6	1.3	
198	Porosity and cycling retention in composite-based three-dimensional disc electrodes for Li ion battery. *Journal of Composite Materials*, **2013**, 47, 1677-1682	2.7	
197	Graphene□old Nanoparticle Composite Counter Electrode for Cobalt-electrolyte-based Dye-sensitized Solar Cells. *Chemistry Letters*, **2013**, 42, 31-33	1.7	5
196	Metal Hexacyanoferrate Nanoparticles as Electrode Materials for Lithium Ion Batteries. *Nanoscience and Nanotechnology Letters*, **2013**, 5, 770-774	0.8	29
195	Preparation and Characterization of Palladium Nanoparticles Supported on Nickel Hexacyanoferrate for Fuel Cell Application. *Bulletin of the Korean Chemical Society*, **2013**, 34, 1195-1198	1.2	13
194	Heterogeneous Suzuki Cross-Coupling Reaction Catalyzed by Magnetically Recyclable Nanocatalyst. *Bulletin of the Korean Chemical Society*, **2013**, 34, 1477-1480	1.2	47
193	Pt3Y electrocatalyst for oxygen reduction reaction in proton exchange membrane fuel cells. *International Journal of Hydrogen Energy*, **2012**, 37, 9758-9765	6.7	40
192	Stability characteristics of Pt1Ni1/C as cathode catalysts in membrane electrode assembly of polymer electrolyte membrane fuel cell. *Electrochimica Acta*, **2012**, 59, 264-269	6.7	20
191	Performance enhancement of polymer electrolyte membrane fuel cell by employing line-patterned Nafion membrane. *Journal of Industrial and Engineering Chemistry*, **2012**, 18, 876-879	6.3	35
190	Improved mass transfer using a pore former in cathode catalyst layer in the direct methanol fuel cell. *International Journal of Hydrogen Energy*, **2012**, 37, 11969-11974	6.7	32
189	Selective deposition of Pt onto supported metal clusters for fuel cell electrocatalysts. *Nanoscale*, **2012**, 4, 6461-9	7.7	16
188	Surface Structures and Electrochemical Activities of PtRu Overlayers on Ir Nanoparticles. *ACS Catalysis*, **2012**, 2, 739-745	13.1	7
187	The application of camphorsulfonic acid doped polyaniline films prepared on TCO-free glass for counter electrode of bifacial dye-sensitized solar cells. *Journal of Photochemistry and Photobiology A: Chemistry*, **2012**, 245, 1-8	4.7	26
186	A facile and green strategy for the synthesis of MoS2 nanospheres with excellent Li-ion storage properties. *CrystEngComm*, **2012**, 14, 8323	3.3	88
185	Vertically aligned iron oxide nanotube arrays and porous magnetite nanostructures as three-dimensional electrodes for lithium ion microbatteries. *RSC Advances*, **2012**, 2, 12177	3.7	13

184	A facile hydrazine-assisted hydrothermal method for the deposition of monodisperse SnO2 nanoparticles onto graphene for lithium ion batteries. *Journal of Materials Chemistry*, **2012**, 22, 2520-2525		113
183	Structural design of 3-dimensional disk electrode based on Cu-CoO composite for Li-ion battery. *Korean Journal of Chemical Engineering*, **2012**, 29, 985-988	2.8	2
182	Role of electronic perturbation in stability and activity of Pt-based alloy nanocatalysts for oxygen reduction. *Journal of the American Chemical Society*, **2012**, 134, 19508-11	16.4	176
181	Facile and economical synthesis of hierarchical carbon-coated magnetite nanocomposite particles and their applications in lithium ion battery anodes. *Energy and Environmental Science*, **2012**, 5, 9528	35.4	109
180	Electrocatalytic effects of carbon dissolution in Pd nanoparticles. *Langmuir*, **2012**, 28, 3664-70	4	14
179	Promoting effects of La for improved oxygen reduction activity and high stability of Pt on Pt□a alloy electrodes. *Energy and Environmental Science*, **2012**, 5, 7521	35.4	68
178	3,4-dihydroxy-L-phenylalanine as a cell adhesion molecule in serum-free cell culture. *Biotechnology Progress*, **2012**, 28, 1055-60	2.8	10
177	The dependence of performance degradation of membrane electrode assembly on platinum loading in polymer electrolyte membrane fuel cell. *International Journal of Hydrogen Energy*, **2012**, 37, 2490-2497	6.7	20
176	Performance of membrane electrode assemblies using PdPt alloy as anode catalysts in polymer electrolyte membrane fuel cell. *International Journal of Hydrogen Energy*, **2012**, 37, 5884-5890	6.7	20
175	Ionic Resistance of a Cathode Catalyst Layer with Various Thicknesses by Electrochemical Impedance Spectroscopy for PEMFC. *Journal of the Electrochemical Society*, **2012**, 159, B378-B384	3.9	31
174	Morphology Controlled Cathode Catalyst Layer with AAO Template in Polymer Electrolyte Membrane Fuel Cells. *Journal of the Korean Electrochemical Society*, **2012**, 15, 109-114		
173	Enhanced activity of Pt-based electrocatalysts for oxygen reduction via a selective Pt deposition process. *Journal of Electroanalytical Chemistry*, **2011**, 662, 70-79	4.1	20
172	Enhanced Photovoltaic Properties of a Cobalt Bipyridyl Redox Electrolyte in Dye-Sensitized Solar Cells Employing Vertically Aligned TiO2 Nanotube Electrodes. *Journal of Physical Chemistry C*, **2011**, 115, 19979-19985	3.8	51
171	A one-pot microwave-assisted non-aqueous sol□gel approach to metal oxide/graphene nanocomposites for Li-ion batteries. *RSC Advances*, **2011**, 1, 1687	3.7	72
170	Large-Scale Synthesis of Ultrathin Manganese Oxide Nanoplates and Their Applications to T1 MRI Contrast Agents. *Chemistry of Materials*, **2011**, 23, 3318-3324	9.6	83
169	Surfactant-free nonaqueous synthesis of lithium titanium oxide (LTO) nanostructures for lithium ion battery applications. *Journal of Materials Chemistry*, **2011**, 21, 806-810		73
168	Enhanced efficiency of dye-sensitized solar cells through TiCl4-treated, nanoporous-layer-covered TiO2 nanotube arrays. *Journal of Power Sources*, **2011**, 196, 8904-8908	8.9	56
167	Effect of the amount of reducing agent on surface structures, electrochemical activity and stability of PtRu catalysts. *Electrochimica Acta*, **2011**, 56, 8688-8694	6.7	5

166	Phosphate adsorption and its effect on oxygen reduction reaction for PtxCoy alloy and Aucore□Ptshell electrocatalysts. *Electrochimica Acta*, **2011**, 56, 8802-8810	6.7	22
165	Methanol-tolerant cathode electrode structure composed of heterogeneous composites to overcome methanol crossover effects for direct methanol fuel cell. *International Journal of Hydrogen Energy*, **2011**, 36, 15731-15738	6.7	27
164	Electrocatalytic Properties of TiO2-Embedded Pt Nanoparticles in Oxidation of Methanol: Particle Size Effect and Proton Spillover Effect. *Electrocatalysis*, **2011**, 2, 297-306	2.7	23
163	Catalytic Reactions in Direct Ethanol Fuel Cells. *Angewandte Chemie*, **2011**, 123, 2318-2322	3.6	9
162	Elemental Sulfur as a Reactive Medium for Gold Nanoparticles and Nanocomposite Materials. *Angewandte Chemie*, **2011**, 123, 11611-11614	3.6	9
161	Titelbild: Elemental Sulfur as a Reactive Medium for Gold Nanoparticles and Nanocomposite Materials (Angew. Chem. 48/2011). *Angewandte Chemie*, **2011**, 123, 11459-11459	3.6	1
160	Cover Picture: Elemental Sulfur as a Reactive Medium for Gold Nanoparticles and Nanocomposite Materials (Angew. Chem. Int. Ed. 48/2011). *Angewandte Chemie - International Edition*, **2011**, 50, 11263-11263	16.4	
159	Morphological conversion of dipolar core□shell Au□Co nanoparticles into beaded Au□Co3O4 nanowires. *Journal of Materials Chemistry*, **2011**, 21, 14163		14
158	Preparation of MEA with the Polybenzimidazole Membrane for High Temperature PEM Fuel Cell. *Electrochemical and Solid-State Letters*, **2011**, 14, B38		13
157	Enhanced stability and activity of Pt-Y alloy catalysts for electrocatalytic oxygen reduction. *Chemical Communications*, **2011**, 47, 11414-6	5.8	80
156	Surface structures and electrochemical activities of Pt overlayers on Ir nanoparticles. *Langmuir*, **2011**, 27, 3128-37	4	19
155	Influence of hydrophilicity in micro-porous layer for polymer electrolyte membrane fuel cells. *Electrochimica Acta*, **2011**, 56, 2450-2457	6.7	52
154	Performance and stability characteristics of MEAs with carbon-supported Pt and Pt1Ni1 nanoparticles as cathode catalysts in PEM fuel cell. *International Journal of Hydrogen Energy*, **2011**, 36, 4394-4399	6.7	21
153	Effect of PtRu alloying degree on electrocatalytic activities and stabilities. *Applied Catalysis B: Environmental*, **2011**, 102, 334-342	21.8	36
152	Structural Modification of a Membrane Electrode Assembly via a Spray Coating in PEMFCs. *Journal of the Electrochemical Society*, **2011**, 159, B145-B149	3.9	4
151	Effect of Porosity on Cycle Performance in Three-Dimensional Disk Electrode for Li Ion Battery. *Japanese Journal of Applied Physics*, **2011**, 50, 100201	1.4	
150	Layered Nickel-Based Oxides on Partially Oxidized Metallic Copper Foils for Lithium Ion Batteries. *Journal of Electrochemical Science and Technology*, **2011**, 2, 204-210	3.2	
149	Enhanced Electrochromic Properties of Ir□a Oxide Grown Using a Cosputtering System. *Journal of the Electrochemical Society*, **2010**, 157, J256	3.9	7

148	Multilayered Pt/Ru nanorods with controllable bimetallic sites as methanol oxidation catalysts. *Physical Chemistry Chemical Physics*, **2010**, 12, 15240-6	3.6	31
147	Facile scalable synthesis of magnetite nanocrystals embedded in carbon matrix as superior anode materials for lithium-ion batteries. *Chemical Communications*, **2010**, 46, 118-20	5.8	184
146	Effect of surface segregation on the methanol oxidation reaction in carbon-supported Pt-Ru alloy nanoparticles. *Langmuir*, **2010**, 26, 9123-9	4	43
145	Characteristics and performance of membrane electrode assemblies with operating conditions in polymer electrolyte membrane fuel cell. *Electrochimica Acta*, **2010**, 56, 717-721	6.7	7
144	Facile synthesis of highly active and stable Pt-Ir/C electrocatalysts for oxygen reduction and liquid fuel oxidation reaction. *Chemical Communications*, **2010**, 46, 8401-3	5.8	48
143	Preparation of highly ordered mesoporous Al2O3/TiO2 and its application in dye-sensitized solar cells. *Langmuir*, **2010**, 26, 2864-70	4	66
142	Particle size effects of PtRu nanoparticles embedded in TiO2 on methanol electrooxidation. *Electrochimica Acta*, **2010**, 55, 7939-7944	6.7	21
141	Tungsten oxide bilayer electrodes for photoelectrochemical cells. *Journal of Power Sources*, **2010**, 195, 5422-5425	8.9	10
140	Enhanced photocurrent of nitrogen-doped TiO2 film for dye-sensitized solar cells. *Materials Chemistry and Physics*, **2010**, 124, 422-426	4.4	53
139	Design of Palladium-Based Alloy Electrocatalysts for Hydrogen Oxidation Reaction in Fuel Cells **2010**, 111-146		2
138	Modified polyol synthesis of PtRu/C for high metal loading and effect of post-treatment. *Journal of Power Sources*, **2010**, 195, 1031-1037	8.9	22
137	Enhancement of polymer electrolyte membrane fuel cell performance by boiling a membrane electrode assembly in sulfuric acid solution. *Journal of Power Sources*, **2010**, 195, 5952-5956	8.9	4
136	Performance enhancement of membrane electrode assemblies with plasma etched polymer electrolyte membrane in PEM fuel cell. *International Journal of Hydrogen Energy*, **2010**, 35, 10452-10456	6.7	26
135	The effect of the geometric area ratio between working and counter PEM electrodes for electrochemical hydrogen reactions. *International Journal of Hydrogen Energy*, **2010**, 35, 12449-12453	6.7	2
134	Uniform hematite nanocapsules based on an anode material for lithium ion batteries. *Electrochemistry Communications*, **2010**, 12, 382-385	5.1	115
133	High contrast ratio and fast switching polymeric electrochromic films based on water-dispersible polyaniline-poly(4-styrenesulfonate) nanoparticles. *Electrochemistry Communications*, **2010**, 12, 164-167	5.1	62
132	Preparation process for improving cathode electrode structure in direct methanol fuel cell. *Electrochemistry Communications*, **2010**, 12, 754-757	5.1	11
131	Effect of de-alloying of PtNi bimetallic nanoparticles on the oxygen reduction reaction. *Electrochemistry Communications*, **2010**, 12, 1796-1799	5.1	20

130	Electrocatalytic properties of Pd clusters on Au nanoparticles in formic acid electro-oxidation. *Electrochimica Acta*, **2010**, 55, 4339-4345	6.7	35
129	High Alloying Degree of Carbon Supported Pt-Ru Alloy Nanoparticles Applying Anhydrous Ethanol as a Solvent. *Journal of Electrochemical Science and Technology*, **2010**, 1, 19-24	3.2	5
128	PtRu-Modified Au Nanoparticles as Electrocatalysts for Direct Methanol Fuel Cells. *Journal of the Electrochemical Society*, **2009**, 156, B1150	3.9	11
127	High Performance CeO[sub 2]- and Ce[sub 0.8]Sm[sub 0.2]O[sub 2]-Modified Pt/C Catalysts for the Cathode of a DMFC. *Journal of the Electrochemical Society*, **2009**, 156, B801	3.9	3
126	Electrochemical behavior of carbon-coated SnS2 for use as the anode in lithium-ion batteries. *Electrochimica Acta*, **2009**, 54, 3606-3610	6.7	125
125	Photoelectrochemical oxidative polymerization of aniline and its application to transparent TiO2 solar cells. *Journal of Photochemistry and Photobiology A: Chemistry*, **2009**, 204, 110-114	4.7	8
124	PtRu overlayers on Au nanoparticles for methanol electro-oxidation. *Catalysis Today*, **2009**, 146, 20-24	5.3	11
123	Influence of Oxide on the Oxygen Reduction Reaction of Carbon-Supported PtNi Alloy Nanoparticles. *Journal of Physical Chemistry C*, **2009**, 113, 19732-19739	3.8	64
122	An investigation on electron behavior employing vertically-aligned TiO2 nanotube electrodes for dye-sensitized solar cells. *Nanotechnology*, **2009**, 20, 355307	3.4	37
121	Photo and Electrochemical Characteristics Dependent on the Phase Ratio of Nanocolumnar Structured TiO2 Films by RF Magnetron Sputtering Technique. *Chemistry of Materials*, **2009**, 21, 2777-2788	8.6	53
120	Hyaluronic acid-quantum dot conjugates for in vivo lymphatic vessel imaging. *ACS Nano*, **2009**, 3, 1389-98	16.7	146
119	TiO2 nanotubes with a ZnO thin energy barrier for improved current efficiency of CdSe quantum-dot-sensitized solar cells. *Nanotechnology*, **2009**, 20, 335706	3.4	58
118	Comparison between CFD Analysis and Experiments According to Various PEMFC Flow-field Designs. *Journal of the Korean Electrochemical Society*, **2009**, 12, 61-67		1
117	Theory & Design of Electrocatalyst for Polymer Electrolyte Membrane Fuel Cell. *Journal of the Korean Electrochemical Society*, **2009**, 12, 11-25		1
116	Fabrication of Nickel Oxide Thin Film for Lithium Based Electrolyte by Sol-Gel Method and Electrochromic Properties in Lithium Based Electrolyte. *Journal of the Korean Electrochemical Society*, **2009**, 12, 251-257		1
115	Electrocatalytic activity and stability of Pt supported on Sb-doped SnO2 nanoparticles for direct alcohol fuel cells. *Journal of Catalysis*, **2008**, 258, 143-152	7.3	203
114	Synthesis of 3 nm Pt Nanowire Using MCM-41 and Electrocatalytic Activity in Methanol Electro-oxidation. *Electrochemical and Solid-State Letters*, **2008**, 11, B71		17
113	Effect of Annealing PtNi Nanophases on Extended TiO2 Nanotubes for the Electrochemical Oxygen Reduction Reaction. *Journal of the Electrochemical Society*, **2008**, 155, B1058	3.9	26

112	Modified Decal Method and Its Related Study of Microporous Layer in PEM Fuel Cells. *Journal of the Electrochemical Society*, **2008**, 155, B455	3.9	23
111	The Operation Characteristics of MEAs with Pinholes for Polymer Electrolyte Membrane Fuel Cells. *Electrochemical and Solid-State Letters*, **2008**, 11, B153		8
110	The Effectiveness of Sputtered PtCo Catalysts on TiO[sub 2] Nanotube Arrays for the Oxygen Reduction Reaction. *Journal of the Electrochemical Society*, **2008**, 155, B1128	3.9	31
109	Crystalline Ag Nanocluster-Incorporated RuO[sub 2] as an Electrode Material for Thin-Film Micropseudocapacitors. *Electrochemical and Solid-State Letters*, **2008**, 11, A112		18
108	Formation and mechanistic study of self-ordered TiO2 nanotubes on Ti substrate. *Journal of Industrial and Engineering Chemistry*, **2008**, 14, 52-59	6.3	65
107	High utilization of Pt nanocatalysts fabricated using a high-pressure sputtering technique. *Journal of Power Sources*, **2008**, 178, 547-553	8.9	22
106	Promotional effect of palladium on the hydrogen oxidation reaction at a PtPd alloy electrode. *Angewandte Chemie - International Edition*, **2008**, 47, 9307-10	16.4	44
105	Promotional Effect of Palladium on the Hydrogen Oxidation Reaction at a PtPd Alloy Electrode. *Angewandte Chemie*, **2008**, 120, 9447-9450	3.6	8
104	Columnar rutile TiO2 based dye-sensitized solar cells by radio-frequency magnetron sputtering. *Journal of Power Sources*, **2008**, 184, 331-335	8.9	50
103	Solid-state dye-sensitized TiO2 solar cells using poly(3,4-ethylenedioxythiophene) as substitutes of iodine/iodide electrolytes and noble metal catalysts on FTO counter electrodes. *Journal of Photochemistry and Photobiology A: Chemistry*, **2008**, 193, 77-80	4.7	43
102	Influence of light scattering particles in the TiO2 photoelectrode for solid-state dye-sensitized solar cell. *Journal of Photochemistry and Photobiology A: Chemistry*, **2008**, 200, 294-300	4.7	71
101	Influence of Au contents of AuPt anode catalyst on the performance of direct formic acid fuel cell. *Electrochimica Acta*, **2008**, 53, 3474-3478	6.7	53
100	Methanol electro-oxidation on carbon-supported and Pt-modified Au nanoparticles. *Catalysis Today* , **2008**, 132, 127-131	5.3	23
99	Porous cobalt oxide thin films from low temperature solution phase synthesis for electrochromic electrode. *Thin Solid Films*, **2008**, 516, 8573-8578	2.2	54
98	Improved charge transport in dye-sensitized solar cells employing viscous non-volatile electrolytes. *Electrochemistry Communications*, **2008**, 10, 1326-1329	5.1	14
97	Co-sensitization of vertically aligned TiO2 nanotubes with two different sizes of CdSe quantum dots for broad spectrum. *Electrochemistry Communications*, **2008**, 10, 1579-1582	5.1	89
96	Enhanced performance and improved interfacial properties of polymer electrolyte membrane fuel cells fabricated using sputter-deposited Pt thin layers. *Electrochimica Acta*, **2008**, 53, 6111-6116	6.7	18
95	Ethanol Electro-Oxidation and Stability of Pt Supported on Sb-Doped Tin Oxide. *Journal of the Korean Electrochemical Society*, **2008**, 11, 141-146		1

94	Probing spatially-resolved Pt distribution in PtRu nanoparticles with 195Pt EC-NMR. *Journal of the American Chemical Society*, **2007**, 129, 13806-7	16.4	13
93	Fast switchable electrochromic properties of tungsten oxide nanowire bundles. *Applied Physics Letters*, **2007**, 90, 173126	3.4	85
92	Electrocatalytic enhancement of methanol oxidation by graphite nanofibers with a high loading of PtRu alloy nanoparticles. *Carbon*, **2007**, 45, 28-33	10.4	89
91	Highly dispersed Pt nanoparticles on nitrogen-doped magnetic carbon nanoparticles and their enhanced activity for methanol oxidation. *Carbon*, **2007**, 45, 2496-2501	10.4	92
90	Pd-based PdPt(19:1)/C electrocatalyst as an electrode in PEM fuel cell. *Electrochemistry Communications*, **2007**, 9, 378-381	5.1	88
89	Electrochemical performance of nano-Pt-supported carbon anode for lithium ion batteries. *Electrochimica Acta*, **2007**, 52, 4566-4571	6.7	9
88	Role of surface state on the electron flow in modified TiO2 film incorporating carbon powder for a dye-sensitized solar cell. *Electrochimica Acta*, **2007**, 52, 5242-5250	6.7	47
87	Performance enhancement of PEMFC through temperature control in catalyst layer fabrication. *Electrochimica Acta*, **2007**, 53, 763-767	6.7	33
86	Influence of annealing of membrane electrode assembly (MEA) on performance of direct methanol fuel cell (DMFC). *Journal of Power Sources*, **2007**, 163, 952-956	8.9	26
85	Tandem dye-sensitized solar cell-powered electrochromic devices for the photovoltaic-powered smart window. *Journal of Power Sources*, **2007**, 168, 533-536	8.9	80
84	Effect of platinum amount in carbon supported platinum catalyst on performance of polymer electrolyte membrane fuel cell. *Journal of Power Sources*, **2007**, 172, 89-93	8.9	59
83	Effects of the incorporation of carbon powder into nanostructured TiO2 film for dye-sensitized solar cell. *Journal of Photochemistry and Photobiology A: Chemistry*, **2007**, 186, 234-241	4.7	38
82	Dye-sensitized solar cells with Pt□NiO and Pt□TiO2 biphase counter electrodes. *Journal of Photochemistry and Photobiology A: Chemistry*, **2007**, 189, 301-306	4.7	32
81	Electrocatalytic activity of carbon-supported Pt□Au nanoparticles for methanol electro-oxidation. *Electrochimica Acta*, **2007**, 52, 5599-5605	6.7	97
80	The enhanced anodic performance of highly crimped and crystalline nanofibrillar carbon in lithium-ion batteries. *Electrochimica Acta*, **2007**, 53, 944-950	6.7	5
79	Preparation of PtRu nanoparticles on various carbon supports using surfactants and their catalytic activities for methanol electro-oxidation. *Journal of Power Sources*, **2007**, 171, 404-411	8.9	22
78	Electrochromism of Sn-Modified WO[sub 3] Electrodes Prepared from Sol-Gel Method. *Electrochemical and Solid-State Letters*, **2007**, 10, E27		14
77	Surface Structure of Pt-Modified Au Nanoparticles and Electrocatalytic Activity in Formic Acid Electro-Oxidation. *Journal of Physical Chemistry C*, **2007**, 111, 19126-19133	3.8	120

76	Surface Modification of Stretched TiO2Nanotubes for Solid-State Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2007**, 111, 9614-9623	3.8	205
75	Electrochromic Properties of Li+-Modified Prussian Blue. *Journal of the Korean Electrochemical Society*, **2007**, 10, 126-131		1
74	CdSe Quantum Dots Sensitized TiO2Electrodes for Photovoltaic Cells. *Journal of the Korean Electrochemical Society*, **2007**, 10, 257-261		7
73	CO Tolerance Improvement of MEA Using Metal Thin Film by Sputtering Method in PEM Fuel Cell. *Journal of the Korean Electrochemical Society*, **2007**, 10, 279-282		1
72	Formation and characterization of Cu5Si nanocomposite electrodes for rechargeable Li batteries. *Journal of Power Sources*, **2006**, 163, 211-214	8.9	30
71	PtRh alloy nanoparticle electrocatalysts for oxygen reduction for use in direct methanol fuel cells. *Journal of Power Sources*, **2006**, 163, 82-86	8.9	64
70	A PtAu Nanoparticle Electrocatalyst for Methanol Electro-oxidation in Direct Methanol Fuel Cells. *Journal of the Electrochemical Society*, **2006**, 153, A1812	3.9	77
69	Modified electrochromism of tungsten oxide via platinum nanophases. *Applied Physics Letters*, **2006**, 88, 211107	3.4	17
68	Simultaneous phase- and size-controlled synthesis of TiO(2) nanorods via non-hydrolytic sol-gel reaction of syringe pump delivered precursors. *Journal of Physical Chemistry B*, **2006**, 110, 24318-23	3.4	105
67	High Contrast Ratio and Rapid Switching Organic Polymeric Electrochromic Thin Films Based on Triarylamine Derivatives from Layer-by-Layer Assembly. *Chemistry of Materials*, **2006**, 18, 5823-5825	9.6	60
66	Structural effect of PtRu□WO3 alloy nanostructures on methanol electrooxidation. *Electrochemistry Communications*, **2006**, 8, 359-363	5.1	23
65	Characterization of electrodeposited CuInSe2 (CIS) film. *Electrochimica Acta*, **2006**, 51, 4433-4438	6.7	70
64	Preparation and characterization of successively deposited Pt/Ru bimetallic electrocatalysts for the methanol oxidation. *Electrochimica Acta*, **2006**, 52, 1683-1687	6.7	18
63	Synthesis of size-controlled CdSe quantum dots and characterization of CdSe□onjugated polymer blends for hybrid solar cells. *Journal of Photochemistry and Photobiology A: Chemistry*, **2006**, 179, 135-141	4.7	68
62	Preparation and charateristics of Nafion membrane coated with a PVdF copolymer/recast Nafion blend for direct methanol fuel cell. *Journal of Power Sources*, **2006**, 159, 524-528	8.9	55
61	Electro-oxidation of methanol and formic acid on PtRu and PtAu for direct liquid fuel cells. *Journal of Power Sources*, **2006**, 163, 71-75	8.9	193
60	Ta2O5-Incorporated WO3 nanocomposite film for improved electrochromic performance in an acidic condition. *Journal of Nanoscience and Nanotechnology*, **2006**, 6, 3572-6	1.3	
59	Catalytic activity of platinum on ruthenium electrodes with modified (electro)chemical states. *Journal of Physical Chemistry B*, **2005**, 109, 13585-9	3.4	33

58	Structure and electrocatalysis of sputtered RuPt thin-film electrodes. *Journal of Physical Chemistry B*, **2005**, 109, 12845-9	3.4	9
57	Flexible dye-sensitized solar cells using ZnO coated TiO2 nanoparticles. *Journal of Photochemistry and Photobiology A: Chemistry*, **2005**, 171, 269-273	4.7	98
56	Electrophoretically deposited TiO2 photo-electrodes for use in flexible dye-sensitized solar cells. *Journal of Photochemistry and Photobiology A: Chemistry*, **2005**, 173, 1-6	4.7	98
55	A coated Nafion membrane with a PVdF copolymer/Nafion blend for direct methanol fuel cells (DMFCs). *Solid State Ionics*, **2005**, 176, 3027-3030	3.3	28
54	Polymer-Laminated Electrochromic Devices Composed of WO[sub 3] and Ni(OH)[sub 2] on Glass and PET Substrates. *Journal of the Electrochemical Society*, **2005**, 152, H201	3.9	8
53	Full Color Screen by EPD Combined with Photolithography for Flat Panel Displays. *Journal of the Electrochemical Society*, **2004**, 151, H27	3.9	11
52	Electrochemical and Electrochromic Properties of Ni Oxide Thin Films Prepared by a Sol□Gel Method. *Journal of Sol-Gel Science and Technology*, **2004**, 31, 323-328	2.3	32
51	Methanol electro-oxidation and direct methanol fuel cell using Pt/Rh and Pt/Ru/Rh alloy catalysts. *Electrochimica Acta*, **2004**, 50, 787-790	6.7	93
50	Proton conducting semi-IPN based on Nafion and crosslinked poly(AMPS) for direct methanol fuel cell. *Electrochimica Acta*, **2004**, 50, 588-593	6.7	23
49	Characteristics of PVdF copolymer/Nafion blend membrane for direct methanol fuel cell (DMFC). *Electrochimica Acta*, **2004**, 50, 583-588	6.7	92
48	PtRuRhNi nanoparticle electrocatalyst for methanol electrooxidation in direct methanol fuel cell. *Journal of Catalysis*, **2004**, 224, 236-242	7.3	121
47	Failure Modes of Silicon Powder Negative Electrode in Lithium Secondary Batteries. *Electrochemical and Solid-State Letters*, **2004**, 7, A306		513
46	Origin of the Enhanced Catalytic Activity of Carbon Nanocoil-Supported PtRu Alloy Electrocatalysts. *Journal of Physical Chemistry B*, **2004**, 108, 939-944	3.4	170
45	Synthesis and Characterization of Sn Nanophases in a Ta2O5 Matrix. *Chemistry of Materials*, **2004**, 16, 1991-1995	9.6	29
44	PtRu Alloy and PtRu□O3 Nanocomposite Electrodes for Methanol Electrooxidation Fabricated by a Sputtering Deposition Method. *Journal of Physical Chemistry B*, **2004**, 108, 5989-5994	3.4	98
43	Ordered Porous Carbons with Tunable Pore Sizes as Catalyst Supports in Direct Methanol Fuel Cell. *Journal of Physical Chemistry B*, **2004**, 108, 7074-7079	3.4	302
42	Characterization of the structures of size-selected TiO2 nanoparticles using X-ray absorption spectroscopy. *Applied Spectroscopy*, **2004**, 58, 598-602	3.1	48
41	Investigation of the Structural and Electrochemical Properties of Size-Controlled SnO2 Nanoparticles. *Journal of Physical Chemistry B*, **2004**, 108, 9815-9820	3.4	244

40	Adhesion Improvement of Phosphor Layer by Combining Electrophoretic Deposition and UV Curing. *Journal of the Electrochemical Society*, **2003**, 150, H43	3.9	12
39	High-performance direct methanol fuel cell electrodes using solid-phase-synthesized carbon nanocoils. *Angewandte Chemie - International Edition*, **2003**, 42, 4352-6	16.4	268
38	Nano-composite of PtRu alloy electrocatalyst and electronically conducting polymer for use as the anode in a direct methanol fuel cell. *Electrochimica Acta*, **2003**, 48, 2781-2789	6.7	105
37	Effect of interfacial property on electrochromic response speed of Ta2O5/NiO and Ta2O5/Ni(OH)2. *Solid State Ionics*, **2003**, 165, 155-160	3.3	11
36	Effects of tantalum oxide films on stability and optical memory in electrochromic tungsten oxide films. *Solid State Ionics*, **2003**, 165, 229-233	3.3	21
35	Synthesis and charge□discharge properties of LiNi1□□CoxMyO2 (M=Al, Ga) compounds. *Journal of Power Sources*, **2003**, 115, 101-109	8.9	20
34	A Pd-impregnated nanocomposite Nafion membrane for use in high-concentration methanol fuel in DMFC. *Electrochemistry Communications*, **2003**, 5, 571-574	5.1	122
33	The role of defects on the electrochromic response time of sputter-deposited Ni oxide films. *Solid State Ionics*, **2003**, 156, 433-437	3.3	8
32	Electrocatalytic Enhancement of Methanol Oxidation at Pt□WOx Nanophase Electrodes and In-Situ Observation of Hydrogen Spillover Using Electrochromism. *Journal of Physical Chemistry B*, **2003**, 107, 4352-4355	3.4	86
31	PtRu□WO3 nanostructured alloy electrode for use in thin-film fuel cells. *Applied Physics Letters*, **2003**, 82, 1090-1092	3.4	32
30	Structural, Chemical, and Electronic Properties of Pt/Ni Thin Film Electrodes for Methanol Electrooxidation. *Journal of Physical Chemistry B*, **2003**, 107, 5851-5856	3.4	126
29	Methanol Oxidation on Pt/Ru, Pt/Ni, and Pt/Ru/Ni Anode Electrocatalysts at Different Temperatures for DMFCs. *Journal of the Electrochemical Society*, **2003**, 150, A973	3.9	126
28	Y[sub 3]Al[sub 5]O[sub 12]:Ce[sub 0.05] Phosphor Coatings on Gallium Nitride for White Light Emitting Diodes. *Journal of the Electrochemical Society*, **2003**, 150, H47	3.9	180
27	Bleached state transmittance in charge-unbalanced all-solid-state electrochromic devices. *Applied Physics Letters*, **2003**, 82, 3379-3381	3.4	33
26	Modulation of electrode performance and in situ observation of proton transport in Pt□RuO2 nanocomposite thin-film electrodes. *Journal of Applied Physics*, **2003**, 94, 7276-7280	2.5	13
25	Surface morphological, microstructural, and electrochromic properties of short-range ordered and crystalline nickel oxide thin films. *Applied Surface Science*, **2002**, 199, 259-269	6.7	48
24	Suppressive effect of Li2CO3 on initial irreversibility at carbon anode in Li-ion batteries. *Journal of Power Sources*, **2002**, 104, 132-139	8.9	64
23	New RuO2 and carbon□RuO2 composite diffusion layer for use in direct methanol fuel cells. *Journal of Power Sources*, **2002**, 109, 439-445	8.9	59

22	All-solid-state supercapacitor using a Nafion polymer membrane and its hybridization with a direct methanol fuel cell. *Journal of Power Sources*, **2002**, 109, 500-506	8.9	60
21	Suppressive effect of lithium phosphorous oxynitride at carbon anode on solvent decomposition in liquid electrolyte. *Journal of Power Sources*, **2002**, 112, 626-633	8.9	15
20	Studies on heat-treated MPCF anodes in Li ion batteries. *Microchemical Journal*, **2002**, 72, 185-192	4.8	14
19	All-solid-state electrochromic device composed of WO3 and Ni(OH)2 with a Ta2O5 protective layer. *Applied Physics Letters*, **2002**, 81, 3930-3932	3.4	59
18	The Effect of Ar/O2 Ratio on Electrochromic Response Time of Ni Oxides Grown Using an RF Sputtering System. *Japanese Journal of Applied Physics*, **2002**, 41, L212-L215	1.4	21
17	Microstructural and electrochromic properties of sputter-deposited Ni oxide films grown at different working pressures. *Journal of Applied Physics*, **2002**, 92, 1268-1273	2.5	18
16	PtWOx electrode structure for thin-film fuel cells. *Applied Physics Letters*, **2002**, 81, 907-909	3.4	50
15	Chemical and Electronic Effects of Ni in Pt/Ni and Pt/Ru/Ni Alloy Nanoparticles in Methanol Electrooxidation. *Journal of Physical Chemistry B*, **2002**, 106, 1869-1877	3.4	717
14	Nanoparticle Synthesis and Electrocatalytic Activity of Pt Alloys for Direct Methanol Fuel Cells. *Journal of the Electrochemical Society*, **2002**, 149, A1299	3.9	126
13	Electrochromic properties of SnO2-incorporated Ni oxide films grown using a cosputtering system. *Journal of Applied Physics*, **2002**, 92, 7128-7132	2.5	14
12	The Effect of RF Power on the Electrochromic Response Time of Sputter-Deposited Ni Oxide Films. *Japanese Journal of Applied Physics*, **2002**, 41, L533-L535	1.4	17
11	Characterization of Methanol Crossover through Nafion Membranes by Direct Cell Performance Measurement. *Journal of the Korean Electrochemical Society*, **2002**, 5, 226-231		2
10	Electrochemical properties of passivation film on mesophase pitch-based carbon fiber electrode. *Microchemical Journal*, **2001**, 68, 61-70	4.8	31
9	Improved Electrochromic Response Time of Nickel Hydroxide Thin Film by Ultra-Thin Nickel Metal Layer. *Japanese Journal of Applied Physics*, **2001**, 40, L708-L710	1.4	23
8	Electroluminescence of oxide-covered tantalum electrode as inorganic and organic probes. *Synthetic Metals*, **2001**, 117, 253-254	3.6	1
7	Hot Electron Generation in Aqueous Solution at Oxide-Covered Tantalum Electrodes. Reduction of Methylpyridinium and Electrogenerated Chemiluminescence of Ru(bpy)32+. *Journal of Physical Chemistry B*, **1999**, 103, 667-674	3.4	33
6	Demonstration of Electrochemical Generation of Solution-Phase Hot Electrons at Oxide-Covered Tantalum Electrodes by Direct Electrogenerated Chemiluminescence. *Journal of Physical Chemistry B*, **1998**, 102, 9797-9805	3.4	26
5	Enhancement of Electrochemical Hot Electron Injection into Electrolyte Solutions at Oxide-Covered Tantalum Electrodes by Thin Platinum Films. *Journal of Physical Chemistry B*, **1998**, 102, 9806-9811	3.4	21

4	Coadsorption of sulfate anions and silver adatoms on the Au(111) single crystal electrode. Ex situ and in situ comparison. *Electrochimica Acta*, **1995**, 40, 17-28	6.7	56
3	Atomic Structure Modification of Fe-N-C Catalysts via Morphology Engineering of Graphene for Enhanced Conversion Kinetics of Lithium–Sulfur Batteries. *Advanced Functional Materials*,2110857	15.6	5
2	(Fe, Ni, Co)9S8@CS catalyst decorated on N-doped carbon as an efficient electrocatalyst for oxygen evolution reaction. *International Journal of Energy Research*,	4.5	1
1	Oligomeric chain extender-derived anion conducting membrane materials with poly(p-phenylene)-based architecture for fuel cells and water electrolyzers. *Journal of Materials Chemistry A*,	13	3