Jong Hyeok Park

List of Publications by Citations

347 papers	16,849 citations	67 h-index	117 g-index
359 ext. papers	18,605 ext. citations	9.3 avg, IF	6.95 L-index

#	Paper	IF	Citations
347	Novel carbon-doped TiO2 nanotube arrays with high aspect ratios for efficient solar water splitting. *Nano Letters*, **2006**, 6, 24-8	11.5	1561
346	High-performance perovskite-graphene hybrid photodetector. *Advanced Materials*, **2015**, 27, 41-6	24	651
345	Green synthesis of biphasic TiO2-reduced graphene oxide nanocomposites with highly enhanced photocatalytic activity. *ACS Applied Materials & Interfaces*, **2012**, 4, 3893-901	9.5	457
344	Potassium Incorporation for Enhanced Performance and Stability of Fully Inorganic Cesium Lead Halide Perovskite Solar Cells. *Nano Letters*, **2017**, 17, 2028-2033	11.5	371
343	Efficient photoelectrochemical hydrogen production from bismuth vanadate-decorated tungsten trioxide helix nanostructures. *Nature Communications*, **2014**, 5, 4775	17.4	320
342	Enhancement of donor-acceptor polymer bulk heterojunction solar cell power conversion efficiencies by addition of Au nanoparticles. *Angewandte Chemie - International Edition*, **2011**, 50, 5519-23	16.4	310
341	Hierarchical MnCo-layered double hydroxides@Ni(OH)2 core-shell heterostructures as advanced electrodes for supercapacitors. *Journal of Materials Chemistry A*, **2017**, 5, 1043-1049	13	233
340	Water Splitting Progress in Tandem Devices: Moving Photolysis beyond Electrolysis. *Advanced Energy Materials*, **2016**, 6, 1600602	21.8	216
339	Enhanced Power Conversion Efficiency in PCDTBT/PC70BM Bulk Heterojunction Photovoltaic Devices with Embedded Silver Nanoparticle Clusters. *Advanced Energy Materials*, **2011**, 1, 766-770	21.8	215
338	Growth, detachment and transfer of highly-ordered TiO2 nanotube arrays: use in dye-sensitized solar cells. *Chemical Communications*, **2008**, 2867-9	5.8	209
337	Capacitance properties of graphite/polypyrrole composite electrode prepared by chemical polymerization of pyrrole on graphite fiber. *Journal of Power Sources*, **2002**, 105, 20-25	8.9	208
336	An order/disorder/water junction system for highly efficient co-catalyst-free photocatalytic hydrogen generation. *Energy and Environmental Science*, **2016**, 9, 499-503	35.4	201
335	Hybrid electrochemical capacitors based on polyaniline and activated carbon electrodes. *Journal of Power Sources*, **2002**, 111, 185-190	8.9	185
334	An Electrochemical Capacitor Based on a Ni(OH)[sub 2]/Activated Carbon Composite Electrode. *Electrochemical and Solid-State Letters*, **2002**, 5, H7		185
333	Single-step solvothermal synthesis of mesoporous Ag-TiO2-reduced graphene oxide ternary composites with enhanced photocatalytic activity. *Nanoscale*, **2013**, 5, 5093-101	7.7	178
332	Carbon Nanotube/RuO[sub 2] Nanocomposite Electrodes for Supercapacitors. *Journal of the Electrochemical Society*, **2003**, 150, A864	3.9	176
331	Polymer/Gold Nanoparticle Nanocomposite Light-Emitting Diodes: Enhancement of Electroluminescence Stability and Quantum Efficiency of Blue-Light-Emitting Polymers. *Chemistry of Materials*, **2004**, 16, 688-692	9.6	172

330	Transferred vertically aligned N-doped carbon nanotube arrays: use in dye-sensitized solar cells as counter electrodes. *Chemical Communications*, **2011**, 47, 4264-6	5.8	170
329	Dye-sensitized solar cells with Pt- and TCO-free counter electrodes. *Chemical Communications*, **2010**, 46, 4505-7	5.8	168
328	Balancing light absorptivity and carrier conductivity of graphene quantum dots for high-efficiency bulk heterojunction solar cells. *ACS Nano*, **2013**, 7, 7207-12	16.7	152
327	Porphyrin Sensitizers with Donor Structural Engineering for Superior Performance Dye-Sensitized Solar Cells and Tandem Solar Cells for Water Splitting Applications. *Advanced Energy Materials*, **2017**, 7, 1602117	21.8	151
326	Unveiling the Crystal Formation of Cesium Lead Mixed-Halide Perovskites for Efficient and Stable Solar Cells. *Journal of Physical Chemistry Letters*, **2017**, 8, 2936-2940	6.4	144
325	Proton-conducting composite membranes derived from sulfonated hydrocarbon and inorganic materials. *Journal of Power Sources*, **2003**, 124, 18-25	8.9	141
324	Dual Oxygen and Tungsten Vacancies on a WO3 Photoanode for Enhanced Water Oxidation. *Angewandte Chemie - International Edition*, **2016**, 55, 11819-23	16.4	140
323	Conflicted Effects of a Solvent Additive on PTB7:PC71BM Bulk Heterojunction Solar Cells. *Journal of Physical Chemistry C*, **2015**, 119, 5954-5961	3.8	138
322	A roll-to-roll welding process for planarized silver nanowire electrodes. *Nanoscale*, **2014**, 6, 11828-34	7.7	132
321	Synthesis of transparent mesoporous tungsten trioxide films with enhanced photoelectrochemical response: application to unassisted solar water splitting. *Energy and Environmental Science*, **2011**, 4, 1465	35.4	132
320	Flexible and platinum-free dye-sensitized solar cells with conducting-polymer-coated graphene counter electrodes. *ChemSusChem*, **2012**, 5, 379-82	8.3	126
319	Rheological properties and dispersion stability of magnetorheological (MR) suspensions. *Rheologica Acta*, **2001**, 40, 211-219	2.3	124
318	Black phosphorene as a hole extraction layer boosting solar water splitting of oxygen evolution catalysts. *Nature Communications*, **2019**, 10, 2001	17.4	120
317	CdS or CdSe decorated TiO2 nanotube arrays from spray pyrolysis deposition: use in photoelectrochemical cells. *Chemical Communications*, **2010**, 46, 2385-7	5.8	120
316	Vertically Oriented MoS2 with Spatially Controlled Geometry on Nitrogenous Graphene Sheets for High-Performance Sodium-Ion Batteries. *Advanced Energy Materials*, **2018**, 8, 1703300	21.8	116
315	Unassisted photoelectrochemical water splitting beyond 5.7% solar-to-hydrogen conversion efficiency by a wireless monolithic photoanode/dye-sensitised solar cell tandem device. *Nano Energy*, **2015**, 13, 182-191	17.1	114
314	Flexible and transparent metallic grid electrodes prepared by evaporative assembly. *ACS Applied Materials & Interfaces*, **2014**, 6, 12380-7	9.5	111
313	Unassisted photoelectrochemical water splitting exceeding 7% solar-to-hydrogen conversion efficiency using photon recycling. *Nature Communications*, **2016**, 7, 11943	17.4	109

312	Plasmon-Sensitized Graphene/TiO Inverse Opal Nanostructures with Enhanced Charge Collection Efficiency for Water Splitting. *ACS Applied Materials & Interfaces*, **2017**, 9, 7075-7083	9.5	108
311	Conceptual design of three-dimensional CoN/Ni3N-coupled nanograsses integrated on N-doped carbon to serve as efficient and robust water splitting electrocatalysts. *Journal of Materials Chemistry A*, **2018**, 6, 4466-4476	13	107
310	Fabrication of an Efficient Dye-Sensitized Solar Cell with Stainless Steel Substrate. *Journal of the Electrochemical Society*, **2008**, 155, F145	3.9	107
309	Transferable graphene oxide by stamping nanotechnology: electron-transport layer for efficient bulk-heterojunction solar cells. *Angewandte Chemie - International Edition*, **2013**, 52, 2874-80	16.4	105
308	Hierarchical construction of self-standing anodized titania nanotube arrays and nanoparticles for efficient and cost-effective front-illuminated dye-sensitized solar cells. *ACS Nano*, **2011**, 5, 5088-93	16.7	105
307	Sequential processing: control of nanomorphology in bulk heterojunction solar cells. *Nano Letters*, **2011**, 11, 3163-8	11.5	105
306	Rheological Properties and Stabilization of Magnetorheological Fluids in a Water-in-Oil Emulsion. *Journal of Colloid and Interface Science*, **2001**, 240, 349-354	9.3	104
305	Conformal Coating Strategy Comprising N-doped Carbon and Conventional Graphene for Achieving Ultrahigh Power and Cyclability of LiFePO4. *Nano Letters*, **2015**, 15, 6756-63	11.5	101
304	Photoelectrochemical cells with tungsten trioxide/Mo-doped BiVO4 bilayers. *Physical Chemistry Chemical Physics*, **2012**, 14, 11119-24	3.6	100
303	Graphene/acid coassisted synthesis of ultrathin MoS2 nanosheets with outstanding rate capability for a lithium battery anode. *Inorganic Chemistry*, **2013**, 52, 9807-12	5.1	98
302	Controlled synthesis of vertically aligned hematite on conducting substrate for photoelectrochemical cells: nanorods versus nanotubes. *ACS Applied Materials & Interfaces*, **2011**, 3, 1852-8	9.5	94
301	Photoelectrochemical water splitting at titanium dioxide nanotubes coated with tungsten trioxide. *Applied Physics Letters*, **2006**, 89, 163106	3.4	93
300	Controllable sulfuration engineered NiO nanosheets with enhanced capacitance for high rate supercapacitors. *Journal of Materials Chemistry A*, **2017**, 5, 4543-4549	13	92
299	Amorphous Phosphorus-Incorporated Cobalt Molybdenum Sulfide on Carbon Cloth: An Efficient and Stable Electrocatalyst for Enhanced Overall Water Splitting over Entire pH Values. *ACS Applied Materials & Interfaces*, **2017**, 9, 37739-37749	9.5	88
298	White emission from polymer/quantum dot ternary nanocomposites by incomplete energy transfer. *Nanotechnology*, **2004**, 15, 1217-1220	3.4	87
297	Highly Efficient Solar Water Splitting from Transferred TiO2 Nanotube Arrays. *Nano Letters*, **2015**, 15, 5709-15	11.5	85
296	Stacked Porous Iron-Doped Nickel Cobalt Phosphide Nanoparticle: An Efficient and Stable Water Splitting Electrocatalyst. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 6146-6156	8.3	84
295	Molecular Chemistry-Controlled Hybrid Ink-Derived Efficient Cu2ZnSnS4 Photocathodes for Photoelectrochemical Water Splitting. *ACS Energy Letters*, **2016**, 1, 1127-1136	20.1	83

294	Enhancement of Donor–Acceptor Polymer Bulk Heterojunction Solar Cell Power Conversion Efficiencies by Addition of Au Nanoparticles. *Angewandte Chemie*, **2011**, 123, 5633-5637	3.6	83
293	Roles of interlayers in efficient organic photovoltaic devices. *Macromolecular Rapid Communications*, **2010**, 31, 2095-108	4.8	83
292	Double-Deck Inverse Opal Photoanodes: Efficient Light Absorption and Charge Separation in Heterojunction. *Chemistry of Materials*, **2014**, 26, 5592-5597	9.6	81
291	Cylindrical nanostructured MoS2 directly grown on CNT composites for lithium-ion batteries. *Nanoscale*, **2015**, 7, 3404-9	7.7	80
290	Surface Localization of Defects in Black TiO: Enhancing Photoactivity or Reactivity. *Journal of Physical Chemistry Letters*, **2017**, 8, 199-207	6.4	79
289	Solution-processed yolk–shell-shaped WO3/BiVO4 heterojunction photoelectrodes for efficient solar water splitting. *Journal of Materials Chemistry A*, **2018**, 6, 2585-2592	13	78
288	Defect-Induced Epitaxial Growth for Efficient Solar Hydrogen Production. *Nano Letters*, **2017**, 17, 6676-6683	11.5	77
287	Self-Position of Au NPs in Perovskite Solar Cells: Optical and Electrical Contribution. *ACS Applied Materials & Interfaces*, **2016**, 8, 449-54	9.5	77
286	The preparation of highly ordered TiO2 nanotube arrays by an anodization method and their applications. *Chemical Communications*, **2012**, 48, 6456-71	5.8	76
285	Inorganic thin layer coated porous separator with high thermal stability for safety reinforced Li-ion battery. *Journal of Power Sources*, **2012**, 212, 22-27	8.9	75
284	Tuning the charge transfer route by p–n junction catalysts embedded with CdS nanorods for simultaneous efficient hydrogen and oxygen evolution. *Journal of Materials Chemistry A*, **2015**, 3, 4803-4810	13	73
283	Preparation of a trilayer separator and its application to lithium-ion batteries. *Journal of Power Sources*, **2010**, 195, 8302-8305	8.9	73
282	Unconventional pore and defect generation in molybdenum disulfide: application in high-rate lithium-ion batteries and the hydrogen evolution reaction. *ChemSusChem*, **2014**, 7, 2489-95	8.3	72
281	Near-Complete Suppression of Oxygen Evolution for Photoelectrochemical HO Oxidative HO Synthesis. *Journal of the American Chemical Society*, **2020**, 142, 8641-8648	16.4	68
280	Inverse opal structured α-Fe2O3 on graphene thin films: enhanced photo-assisted water splitting. *Nanoscale*, **2013**, 5, 1939-44	7.7	66
279	Synthesis and photoelectrochemical cell properties of vertically grown α-Fe2O3 nanorod arrays on a gold nanorod substrate. *Journal of Materials Chemistry*, **2010**, 20, 2247		66
278	Mediator- and co-catalyst-free direct Z-scheme composites of BiWO-CuP for solar-water splitting. *Nanoscale*, **2018**, 10, 3026-3036	7.7	65
277	Hydrogen Peroxide Production from Solar Water Oxidation. *ACS Energy Letters*, **2019**, 4, 3018-3027	20.1	65

276	Tunable Bandgap Energy and Promotion of H2O2 Oxidation for Overall Water Splitting from Carbon Nitride Nanowire Bundles. *Advanced Energy Materials*, **2016**, 6, 1502352	21.8	65
275	Bulk layered heterojunction as an efficient electrocatalyst for hydrogen evolution. *Science Advances*, **2017**, 3, e1602215	14.3	64
274	Dual Oxygen and Tungsten Vacancies on a WO3 Photoanode for Enhanced Water Oxidation. *Angewandte Chemie*, **2016**, 128, 11998-12002	3.6	64
273	Edge-On MoS2 Thin Films by Atomic Layer Deposition for Understanding the Interplay between the Active Area and Hydrogen Evolution Reaction. *Chemistry of Materials*, **2017**, 29, 7604-7614	9.6	64
272	Metallic NiS Films Grown by Atomic Layer Deposition as an Efficient and Stable Electrocatalyst for Overall Water Splitting. *ACS Applied Materials & Interfaces*, **2018**, 10, 12807-12815	9.5	63
271	Controlled growth of vertically oriented hematite/Pt composite nanorod arrays: use for photoelectrochemical water splitting. *Nanotechnology*, **2011**, 22, 175703	3.4	61
270	Photoelectrochemical Tandem Cell with Bipolar Dye-Sensitized Electrodes for Vectorial Electron Transfer for Water Splitting. *Electrochemical and Solid-State Letters*, **2006**, 9, E5-E8		61
269	Opto-electronic properties of TiO2 nanohelices with embedded HC(NH2)2PbI3 perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 9179-9186	13	60
268	Enhancing Mo:BiVO4 Solar Water Splitting with Patterned Au Nanospheres by Plasmon-Induced Energy Transfer. *Advanced Energy Materials*, **2018**, 8, 1701765	21.8	60
267	Solution-processable polymer solar cells from a poly(3-hexylthiophene)/[6,6]-phenyl C61-butyric acidmethyl ester concentration graded bilayers. *Applied Physics Letters*, **2009**, 95, 043505	3.4	60
266	Nanopatterned conductive polymer films as a Pt, TCO-free counter electrode for low-cost dye-sensitized solar cells. *Nanoscale*, **2013**, 5, 7838-43	7.7	59
265	A Structurable Gel-Polymer Electrolyte for Sodium Ion Batteries. *Advanced Functional Materials*, **2017**, 27, 1701768	15.6	59
264	Improved electrorheological effect in polyaniline nanocomposite suspensions. *Journal of Colloid and Interface Science*, **2002**, 245, 198-203	9.3	59
263	Enhanced High-Temperature Long-Term Stability of Polymer Solar Cells with a Thermally Stable TiOx Interlayer. *Journal of Physical Chemistry C*, **2009**, 113, 17268-17273	3.8	58
262	Controlled TiO[sub 2] Nanotube Arrays as an Active Material for High Power Energy-Storage Devices. *Journal of the Electrochemical Society*, **2009**, 156, A584	3.9	57
261	Oriented Grains with Preferred Low-Angle Grain Boundaries in Halide Perovskite Films by Pressure-Induced Crystallization. *Advanced Energy Materials*, **2018**, 8, 1702369	21.8	56
260	Design of TiO2 nanotube array-based water-splitting reactor for hydrogen generation. *Journal of Power Sources*, **2008**, 184, 284-287	8.9	55
259	Resolving Hysteresis in Perovskite Solar Cells with Rapid Flame-Processed Cobalt-Doped TiO2. *Advanced Energy Materials*, **2018**, 8, 1801717	21.8	54

258	Controlled dissolution of polystyrene nanobeads: transition from liquid electrolyte to gel electrolyte. *Nano Letters*, **2012**, 12, 2233-7	11.5	53
257	Overcoming Charge Collection Limitation at Solid/Liquid Interface by a Controllable Crystal Deficient Overlayer. *Advanced Energy Materials*, **2017**, 7, 1600923	21.8	51
256	General Characterization Methods for Photoelectrochemical Cells for Solar Water Splitting. *ChemSusChem*, **2015**, 8, 3192-203	8.3	51
255	Enhanced light harvesting in bulk heterojunction photovoltaic devices with shape-controlled Ag nanomaterials: Ag nanoparticles versus Ag nanoplates. *RSC Advances*, **2012**, 2, 7268	3.7	51
254	Delocalized Electron Accumulation at Nanorod Tips: Origin of Efficient H2 Generation. *Advanced Functional Materials*, **2016**, 26, 4527-4534	15.6	51
253	Graphene oxide-assisted production of carbon nitrides using a solution process and their photocatalytic activity. *Carbon*, **2014**, 66, 119-125	10.4	49
252	Highly conductive freestanding graphene films as anode current collectors for flexible lithium-ion batteries. *ACS Applied Materials & Interfaces*, **2014**, 6, 11158-66	9.5	48
251	Surface-Engineered Graphene Quantum Dots Incorporated into Polymer Layers for High Performance Organic Photovoltaics. *Scientific Reports*, **2015**, 5, 14276	4.9	48
250	Nano carbon conformal coating strategy for enhanced photoelectrochemical responses and long-term stability of ZnO quantum dots. *Nano Energy*, **2015**, 13, 258-266	17.1	48
249	Origin of White Electroluminescence in Graphene Quantum Dots Embedded Host/Guest Polymer Light Emitting Diodes. *Scientific Reports*, **2015**, 5, 11032	4.9	46
248	Halide Perovskite Nanopillar Photodetector. *ACS Nano*, **2018**, 12, 8564-8571	16.7	46
247	Understanding the positive effects of (CoPi) co-catalyst modification in inverse-opal structured Fe2O3-based photoelectrochemical cells. *International Journal of Hydrogen Energy*, **2013**, 38, 12725-12732	6.7	46
246	Stability comparison: A PCDTBT/PC71BM bulk-heterojunction versus a P3HT/PC71BM bulk-heterojunction. *Solar Energy Materials and Solar Cells*, **2012**, 101, 249-255	6.4	45
245	Ultrahigh Electrocatalytic Conversion of Methane at Room Temperature. *Advanced Science*, **2017**, 4, 1700379	13.8	44
244	Aligned Heterointerface-Induced 1T-MoS Monolayer with Near-Ideal Gibbs Free for Stable Hydrogen Evolution Reaction. *Small*, **2019**, 15, e1804903	11	43
243	Facile synthesis of TiO2 inverse opal electrodes for dye-sensitized solar cells. *Langmuir*, **2011**, 27, 856-604		43
242	Photoelectrochemical cell/dye-sensitized solar cell tandem water splitting systems with transparent and vertically aligned quantum dot sensitized TiO2 nanorod arrays. *Journal of Power Sources*, **2013**, 225, 263-268	8.9	41
241	High-efficiency polymer photovoltaic cells using a solution-processable insulating interfacial nanolayer: the role of the insulating nanolayer. *Journal of Materials Chemistry*, **2012**, 22, 25148		40

240	Polyaniline-based conducting polymer compositions with a high work function for hole-injection layers in organic light-emitting diodes: formation of ohmic contacts. *ChemSusChem*, **2011**, 4, 363-8	8.3	40
239	Dye-sensitized solar cells with TiO2 nano-particles on TiO2 nano-tube-grown Ti substrates. *Journal of Materials Chemistry*, **2011**, 21, 3558		40
238	A magnetic field assisted self-assembly strategy towards strongly coupled Fe3O4 nanocrystal/rGO paper for high-performance lithium ion batteries. *Journal of Materials Chemistry A*, **2014**, 2, 9636	13	39
237	Dye molecules in electrolytes: new approach for suppression of dye-desorption in dye-sensitized solar cells. *Scientific Reports*, **2013**, 3,	4.9	39
236	Double 2-dimensional H2-evoluting catalyst tipped photocatalyst nanowires: A new avenue for high-efficiency solar to H2 generation. *Nano Energy*, **2017**, 34, 481-490	17.1	38
235	Methodologies toward Efficient and Stable Cesium Lead Halide Perovskite-Based Solar Cells. *Advanced Science*, **2018**, 5, 1800509	13.6	38
234	Hematite modified tungsten trioxide nanoparticle photoanode for solar water oxidation. *Journal of Power Sources*, **2012**, 210, 32-37	8.9	38
233	Improved asymmetric electrochemical capacitor using Zn-Co co-doped Ni(OH)2 positive electrode material. *Applied Physics A: Materials Science and Processing*, **2006**, 82, 593-597	2.6	38
232	Disordered layers on WO3 nanoparticles enable photochemical generation of hydrogen from water. *Journal of Materials Chemistry A*, **2019**, 7, 221-227	13	37
231	Efficiency Increase in Flexible Bulk Heterojunction Solar Cells with a Nano-Patterned Indium Zinc Oxide Anode. *Advanced Energy Materials*, **2012**, 2, 1319-1322	21.8	37
230	Photovoltaic devices with an active layer from a stamping transfer technique: single layer versus double layer. *Langmuir*, **2010**, 26, 9584-8	4	37
229	Unexpected solid□olid intermixing in a bilayer of poly(3-hexylthiophene) and [6,6]-phenyl C61-butyric acidmethyl ester via stamping transfer. *Organic Electronics*, **2010**, 11, 1376-1380	3.5	37
228	Rheological properties and stability of magnetorheological fluids using viscoelastic medium and nanoadditives. *Korean Journal of Chemical Engineering*, **2001**, 18, 580-585	2.8	37
227	Morphology and electrochemical behaviour of ruthenium oxide thin film deposited on carbon paper. *Journal of Power Sources*, **2002**, 109, 121-126	8.9	36
226	Polymer-Clay Nanocomposite Solid-State Electrolyte with Selective Cation Transport Boosting and Retarded Lithium Dendrite Formation. *Advanced Energy Materials*, **2020**, 10, 2003114	21.8	35
225	Strategy for Boosting Li-Ion Current in Silicon Nanoparticles. *ACS Energy Letters*, **2018**, 3, 2252-2258	20.1	35
224	Multiple Heterojunction in Single Titanium Dioxide Nanoparticles for Novel Metal-Free Photocatalysis. *Nano Letters*, **2018**, 18, 4257-4262	11.5	35
223	Multi-functionality of macroporous TiO2 spheres in dye-sensitized and hybrid heterojunction solar cells. *Langmuir*, **2014**, 30, 3010-8	4	35

222	Low vacuum process for polymer solar cells: Effect of TiOx interlayer. *Applied Physics Letters*, **2008**, 92, 143504	3.4	35
221	Effect of polymer-insulating nanolayers on electron injection in polymer light-emitting diodes. *Applied Physics Letters*, **2004**, 84, 1783-1785	3.4	35
220	Unassisted Water Splitting from Bipolar Pt□Dye-Sensitized TiO[sub 2] Photoelectrode Arrays. *Electrochemical and Solid-State Letters*, **2005**, 8, G371		35
219	Understanding the synergistic effect of WO3-BiVO4 heterostructures by impedance spectroscopy. *Physical Chemistry Chemical Physics*, **2016**, 18, 9255-61	3.6	35
218	Two-terminal DSSC/silicon tandem solar cells exceeding 18% efficiency. *Energy and Environmental Science*, **2016**, 9, 3657-3665	35.4	34
217	Si-Mn/reduced graphene oxide nanocomposite anodes with enhanced capacity and stability for lithium-ion batteries. *ACS Applied Materials & Interfaces*, **2014**, 6, 1702-8	9.5	34
216	Chemically Modified Graphene Oxide-Wrapped Quasi-Micro Ag Decorated Silver Trimolybdate Nanowires for Photocatalytic Applications. *Journal of Physical Chemistry C*, **2013**, 117, 24023-24032	3.8	34
215	Electric-Field-Assisted Layer-by-Layer Assembly of Weakly Charged Polyelectrolyte Multilayers. *Macromolecules*, **2011**, 44, 2866-2872	5.5	34
214	Efficient photodegradation of volatile organic compounds by iron-based metal-organic frameworks with high adsorption capacity. *Applied Catalysis B: Environmental*, **2020**, 263, 118284	21.8	34
213	An ultrathin inorganic-organic hybrid layer on commercial polymer separators for advanced lithium-ion batteries. *Journal of Power Sources*, **2019**, 416, 89-94	8.9	33
212	Clay Nanosheets in Skeletons of Controlled Phase Inversion Separators for Thermally Stable Li-Ion Batteries. *Advanced Functional Materials*, **2015**, 25, 3399-3404	15.6	33
211	Inverse opal tungsten trioxide films with mesoporous skeletons: synthesis and photoelectrochemical responses. *Chemical Communications*, **2012**, 48, 11939-41	5.8	33
210	Constructing inverse opal structured hematite photoanodes via electrochemical process and their application to photoelectrochemical water splitting. *Physical Chemistry Chemical Physics*, **2013**, 15, 11717-22	3.6	33
209	Core□Shelled Low-Oxidation State Oxides@Reduced Graphene Oxides Cubes via Pressurized Reduction for Highly Stable Lithium Ion Storage. *Advanced Functional Materials*, **2016**, 26, 2959-2965	15.6	33
208	Investigation of porosity and heterojunction effects of a mesoporous hematite electrode on photoelectrochemical water splitting. *Physical Chemistry Chemical Physics*, **2013**, 15, 9775-82	3.6	32
207	White polymer light-emitting devices from ternary-polymer blend with concentration gradient. *Chemical Physics Letters*, **2005**, 403, 293-297	2.5	32
206	Design of a porous gel polymer electrolyte for sodium ion batteries. *Journal of Membrane Science*, **2018**, 566, 122-128	9.6	32
205	Rapid Formation of a Disordered Layer on Monoclinic BiVO : Co-Catalyst-Free Photoelectrochemical Solar Water Splitting. *ChemSusChem*, **2018**, 11, 933-940	8.3	31

204	Controlled synthesis of skein shaped TiO2-B nanotube cluster particles with outstanding rate capability. *Chemical Communications*, **2013**, 49, 2326-8	5.8	31
203	Highly Interconnected Porous Electrodes for Dye-Sensitized Solar Cells Using Viruses as a Sacrificial Template. *Advanced Functional Materials*, **2011**, 21, 1160-1167	15.6	31
202	Highly conductive PEDOT/silicate hybrid anode for ITO-free polymer solar cells. *Solar Energy Materials and Solar Cells*, **2010**, 94, 471-477	6.4	31
201	Enhancement of Photostability in Blue-Light-Emitting Polymers Doped with Gold Nanoparticles. *Macromolecular Rapid Communications*, **2003**, 24, 331-334	4.8	31
200	Enhanced power conversion efficiency of dye-sensitized solar cells with multifunctional photoanodes based on a three-dimensional TiO2 nanohelix array. *Solar Energy Materials and Solar Cells*, **2015**, 132, 47-55	6.4	30
199	Highly robust silicon nanowire/graphene core-shell electrodes without polymeric binders. *Nanoscale*, **2013**, 5, 8986-91	7.7	30
198	Dual Functions of Clay Nanoparticles with High Aspect Ratio in Dye-Sensitized Solar Cells. *Electrochemical and Solid-State Letters*, **2008**, 11, B171		29
197	Black TiO2: What are exact functions of disorder layer **2020**, 2, 44-53		28
196	Controlling surface enrichment in polymeric hole extraction layers to achieve high-efficiency organic photovoltaic cells. *ChemSusChem*, **2012**, 5, 2053-7	8.3	28
195	Multi-Scale Pore Generation from Controlled Phase Inversion: Application to Separators for Li-Ion Batteries. *Advanced Energy Materials*, **2013**, 3, 1417-1420	21.8	28
194	Effect of the ordered 2D-dot nano-patterned anode for polymer solar cells. *Organic Electronics*, **2010**, 11, 285-290	3.5	28
193	Enhanced electrophosphorescence via highly efficient energy transfer from conjugated polymer. *Applied Physics Letters*, **2005**, 86, 171108	3.4	28
192	Hybrid Silver Mesh Electrode for ITO-Free Flexible Polymer Solar Cells with Good Mechanical Stability. *ChemSusChem*, **2016**, 9, 1042-9	8.3	28
191	A facile chemical synthesis of ZnO@multilayer graphene nanoparticles with fast charge separation and enhanced performance for application in solar energy conversion. *Nano Energy*, **2016**, 25, 9-17	17.1	28
190	Incorporation of PEDOT:PSS into SnO2/reduced graphene oxide nanocomposite anodes for lithium-ion batteries to achieve ultra-high capacity and cyclic stability. *RSC Advances*, **2015**, 5, 13964-13971	3.7	27
189	Solution-processable polymer based photovoltaic devices with concentration graded bilayers made via composition control of a poly(3-hexylthiophene)/[6,6]-phenyl C61-butyric acidmethyl ester. *Journal of Materials Chemistry*, **2010**, 20, 4910		25
188	Increased generation of electricity in a microbial fuel cell using Geobacter sulfurreducens. *Korean Journal of Chemical Engineering*, **2009**, 26, 748-753	2.8	25
187	Stabilized Blue Emission from Polymer□Dielectric Nanolayer Nanocomposites. *Advanced Functional Materials*, **2004**, 14, 377-382	15.6	25

186	Heterojunction Photoanode of Atomic-Layer-Deposited MoS on Single-Crystalline CdS Nanorod Arrays. *ACS Applied Materials & Interfaces*, **2019**, 11, 37586-37594	9.5	24
185	Dual or multi carbonaceous coating strategies for next-generation batteries. *Journal of Materials Chemistry A*, **2018**, 6, 1900-1914	13	24
184	Conducting Polymer Coated Non-woven Graphite Fiber Film for Dye-Sensitized Solar Cells: Superior Pt- and FTO-Free Counter Electrodes. *Electrochimica Acta*, **2014**, 137, 164-168	6.7	24
183	Enhanced electroluminescence in emissive polymer/CdSe double-layer films. *Thin Solid Films*, **2007**, 515, 3085-3089	2.2	24
182	Electrochemical CH4 oxidation into acids and ketones on ZrO2:NiCo2O4 quasi-solid solution nanowire catalyst. *Applied Catalysis B: Environmental*, **2019**, 259, 118095	21.8	23
181	Efficient Hole Extraction from Sb2S3 Heterojunction Solar Cells by the Solid Transfer of Preformed PEDOT:PSS Film. *Journal of Physical Chemistry C*, **2014**, 118, 22672-22677	3.8	23
180	Efficient solution-processed small-molecule solar cells by insertion of graphene quantum dots. *Nanoscale*, **2014**, 6, 15175-80	7.7	23
179	Suppressing buoyant force: New avenue for long-term durability of oxygen evolution catalysts. *Nano Energy*, **2018**, 54, 184-191	17.1	23
178	Cyclohexylammonium-Based 2D/3D Perovskite Heterojunction with Funnel-Like Energy Band Alignment for Efficient Solar Cells (23.91%). *Advanced Energy Materials*,2102236	21.8	23
177	Prevention of sulfur diffusion using MoS2-intercalated 3D-nanostructured graphite for high-performance lithium-ion batteries. *Nanoscale*, **2015**, 7, 11928-33	7.7	22
176	Retarded Charge Carrier Recombination in Photoelectrochemical Cells from Plasmon-Induced Resonance Energy Transfer. *Advanced Energy Materials*, **2020**, 10, 2000570	21.8	22
175	A 3D triple-deck photoanode with a strengthened structure integrality: enhanced photoelectrochemical water oxidation. *Nanoscale*, **2016**, 8, 3474-81	7.7	22
174	Enhanced performance and stability of polymer BHJ photovoltaic devices from dry transfer of PEDOT:PSS. *ChemSusChem*, **2014**, 7, 1957-63	8.3	22
173	Polymer bulk heterojunction solar cells with PEDOT:PSS bilayer structure as hole extraction layer. *ChemSusChem*, **2013**, 6, 1070-5	8.3	22
172	Designing a Stable Cathode with Multiple Layers to Improve the Operational Lifetime of Polymer Light-Emitting Diodes. *Advanced Functional Materials*, **2009**, 19, 1863-1868	15.6	22
171	Active layer transfer by stamping technique for polymer solar cells: Synergistic effect of TiOx interlayer. *Organic Electronics*, **2010**, 11, 599-603	3.5	22
170	Controlled pore evolution during phase inversion from the combinatorial non-solvent approach: application to battery separators. *Journal of Materials Chemistry A*, **2016**, 4, 9496-9501	13	22
169	High-reversible capacity of Perovskite BaSnO3/rGO composite for Lithium-Ion Battery Anodes. *Electrochimica Acta*, **2016**, 214, 31-37	6.7	22

168	Analysis of surface morphological changes in organic photovoltaic devices: bilayer versus bulk-heterojunction. *Energy and Environmental Science*, **2011**, 4, 1434	35.4	21
167	Supercritical Carbon Dioxide-Assisted Process for Well-Dispersed Silicon/Graphene Composite as a Li ion Battery Anode. *Scientific Reports*, **2016**, 6, 32011	4.9	20
166	Layer-by-layer all-transfer-based organic solar cells. *Langmuir*, **2013**, 29, 5377-82	4	20
165	Observation of Positive Effects of Freestanding Scattering Film in Dye-Sensitized Solar Cells. *ACS Applied Materials & Interfaces*, **2010**, 2, 288-291	9.5	20
164	Polymer/nanoporous silica nanocomposite blue-light-emitting diodes. *Nanotechnology*, **2005**, 16, 1793-1797	3.4	20
163	Layer-by-Layer Self-Assembled Graphene Multilayers as Pt-Free Alternative Counter Electrodes in Dye-Sensitized Solar Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 11488-98	9.5	20
162	An □gstr□m-level d-spacing controlling synthetic route for MoS2 towards stable intercalation of sodium ions. *Journal of Materials Chemistry A*, **2018**, 6, 22513-22518	13	20
161	Electron beam induced strong organic/inorganic grafting for thermally stable lithium-ion battery separators. *Applied Surface Science*, **2018**, 444, 339-344	6.7	19
160	Size-tunable, fast, and facile synthesis of titanium oxide nanotube powders for dye-sensitized solar cells. *ACS Applied Materials & Interfaces*, **2012**, 4, 4164-8	9.5	19
159	Stamping transfer of a quantum dot interlayer for organic photovoltaic cells. *Langmuir*, **2012**, 28, 9893-84		19
158	PVdF-HFP/exfoliated graphene oxide nanosheet hybrid separators for thermally stable Li-ion batteries. *RSC Advances*, **2016**, 6, 80706-80711	3.7	18
157	Highly efficient monolithic dye-sensitized solar cells. *ACS Applied Materials & Interfaces*, **2013**, 5, 2070-4	9.5	18
156	Facilitated ion diffusion in multiscale porous particles: application in battery separators. *ACS Applied Materials & Interfaces*, **2015**, 7, 4511-7	9.5	18
155	Hollow Polypyrrole Films: Applications for Energy Storage Devices. *Journal of the Electrochemical Society*, **2012**, 159, A1052-A1056	3.9	18
154	Enhanced light harvesting in dye-sensitized solar cells with highly reflective TCO- and Pt-less counter electrodes. *Journal of Materials Chemistry*, **2011**, 21, 15193		18
153	Enhanced electroluminescence from a conjugated polymer/ionomer blend. *Polymer*, **2004**, 45, 8567-8571	3.9	18
152	Catalytic Oxidation of Methane to Oxygenated Products: Recent Advancements and Prospects for Electrocatalytic and Photocatalytic Conversion at Low Temperatures. *Advanced Science*, **2020**, 7, 2001946	13.6	18
151	Designed seamless outer surface: Application for high voltage LiNi0.5Mn1.5O4 cathode with excellent cycling stability. *Journal of Power Sources*, **2016**, 336, 307-315	8.9	17

150	Thermodynamically self-organized hole transport layers for high-efficiency inverted-planar perovskite solar cells. *Nanoscale*, **2017**, 9, 12677-12683	7.7	17
149	Side-chain effects on phenothiazine-based donor□cceptor copolymer properties in organic photovoltaic devices. *Journal of Polymer Science Part A*, **2012**, 50, 649-658	2.5	17
148	Positive Effects of E-Beam Irradiation in Inorganic Particle Based Separators for Lithium-Ion Battery. *Journal of the Electrochemical Society*, **2010**, 157, A31	3.9	17
147	Holographically defined TiO2 electrodes for dye-sensitized solar cells. *ACS Applied Materials & Interfaces*, **2010**, 2, 2970-3	9.5	17
146	Improved Stability of Interfacial Energy-Level Alignment in Inverted Planar Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2018**, 10, 18964-18973	9.5	17
145	Enhancement of Adsorption Performance for Organic Molecules by Combined Effect of Intermolecular Interaction and Morphology in Porous rGO-Incorporated Hydrogels. *ACS Applied Materials & Interfaces*, **2018**, 10, 17335-17344	9.5	16
144	Grain Boundary Healing of Organic-Inorganic Halide Perovskites for Moisture Stability. *Nano Letters* , **2019**, 19, 6498-6505	11.5	16
143	Effect of conducting additives on the properties of composite cathodes for lithium-ion batteries. *Journal of Solid State Electrochemistry*, **2010**, 14, 593-597	2.6	16
142	Heat transfer characteristics of high temperature molten salt for storage of thermal energy. *Korean Journal of Chemical Engineering*, **2010**, 27, 1452-1457	2.8	16
141	Epitaxial growth of WO3 nanoneedles achieved using a facile flame surface treatment process engineering of hole transport and water oxidation reactivity. *Journal of Materials Chemistry A*, **2018** , 6, 19542-19546	13	16
140	Ultrathin nanoclay films with tunable thickness as barrier layers in organic light emitting devices. *Journal of Materials Chemistry*, **2012**, 22, 7718		15
139	Rationally designed hybrids of NiCo2O4 and polymeric carbon nitride as faradaic electrodes with enhanced electrochemical performance. *Electrochimica Acta*, **2019**, 299, 717-726	6.7	15
138	Rationally Designed Copper-Modified Polymeric Carbon Nitride as a Photocathode for Solar Water Splitting. *ChemSusChem*, **2019**, 12, 866-872	8.3	15
137	Electrocatalytic methane oxidation on Co3O4- incorporated ZrO2 nanotube powder. *Applied Catalysis B: Environmental*, **2021**, 283, 119653	21.8	15
136	Highly Transparent Dual-Sensitized Titanium Dioxide Nanotube Arrays for Spontaneous Solar Water Splitting Tandem Configuration. *ACS Applied Materials & Interfaces*, **2015**, 7, 18429-34	9.5	14
135	Promising efficiency enhancement in cobalt redox couple-based back-illuminated dye-sensitized solar cells with titanium foil substrate. *Journal of Power Sources*, **2015**, 278, 32-37	8.9	14
134	Tuning surface chemistry and morphology of graphene oxide by □ray irradiation for improved performance of perovskite photovoltaics. *Carbon*, **2018**, 139, 564-571	10.4	14
133	Band Alignment Engineering between Planar SnO and Halide Perovskites via Two-Step Annealing. *Journal of Physical Chemistry Letters*, **2019**, 10, 6545-6550	6.4	14

132	Controlled thermal sintering of a metal-metal oxide-carbon ternary composite with a multi-scale hollow nanostructure for use as an anode material in Li-ion batteries. *Chemical Communications*, **2014**, 50, 2589-91	5.8	14
131	Tungsten oxide/PEDOT:PSS hybrid cascade hole extraction layer for polymer solar cells with enhanced long-term stability and power conversion efficiency. *Solar Energy Materials and Solar Cells* , **2014**, 122, 24-30	6.4	14
130	Enhanced carrier balance by organic salt doping in single-layer polymer light-emitting devices. *Organic Electronics*, **2009**, 10, 1345-1351	3.5	14
129	Electrochemical performances of inorganic membrane coated electrodes for li-ion batteries. *Journal of Solid State Electrochemistry*, **2010**, 14, 769-773	2.6	14
128	Spin-assembled nanolayer of a hyperbranched polymer on the anode in organic light-emitting diodes: the mechanism of hole injection and electron blocking. *Langmuir*, **2008**, 24, 12704-9	4	14
127	In situ electrochemically synthesized Pt-MoO3 nanostructure catalysts for efficient hydrogen evolution reaction. *Journal of Catalysis*, **2020**, 381, 1-13	7.3	14
126	Additive-free electrode fabrication with reduced graphene oxide using supersonic kinetic spray for flexible lithium-ion batteries. *Carbon*, **2018**, 139, 195-204	10.4	14
125	Ultrafast Flame Annealing of TiO Paste for Fabricating Dye-Sensitized and Perovskite Solar Cells with Enhanced Efficiency. *Small*, **2017**, 13, 1702260	11	13
124	A systematic doping strategy to control the emission spectrum of ternary luminescent polymer blends for white emission. *Optical Materials*, **2007**, 30, 486-491	3.3	13
123	New approach for nanoscale morphology of polymer solar cells. *Solar Energy Materials and Solar Cells*, **2008**, 92, 1188-1191	6.4	13
122	In Operando Stacking of Reduced Graphene Oxide for Active Hydrogen Evolution. *ACS Applied Materials & Interfaces*, **2019**, 11, 43460-43465	9.5	13
121	Mixed-Phase (2H and 1T) MoS2 Catalyst for a Highly Efficient and Stable Si Photocathode. *Catalysts*, **2018**, 8, 580	4	13
120	Ultrathin Hematite on Mesoporous WO3 from Atomic Layer Deposition for Minimal Charge Recombination. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 11358-11367	8.3	12
119	A surface patching strategy to achieve highly efficient solar water oxidation beyond surface passivation effect. *Nano Energy*, **2019**, 66, 104110	17.1	12
118	Polymer-free Vertical Transfer of Silicon Nanowires and their Application to Energy Storage. *ChemSusChem*, **2013**, 6, 2144-8	8.3	12
117	Tailored Metal Oxide Thin Film on Polyethylene Separators for Sodium-Ion Batteries. *Journal of the Electrochemical Society*, **2017**, 164, A1965-A1969	3.9	12
116	Enhanced charge collection via nanoporous morphology in polymer solar cells. *Applied Physics Letters*, **2010**, 96, 103304	3.4	12
115	The tailored inner space of TiO2 electrodes via a 30 second wet etching process: high efficiency solid-state perovskite solar cells. *Nanoscale*, **2015**, 7, 10745-51	7.7	11

114	Tailoring dispersion and aggregation of Au nanoparticles in the BHJ layer of polymer solar cells: plasmon effects versus electrical effects. *ChemSusChem*, **2014**, 7, 3452-8	8.3	11
113	Discrepancy of optimum ratio in bulk heterojunction photovoltaic devices: initial cell efficiency vs long-term stability. *ACS Applied Materials & Interfaces*, **2013**, 5, 1612-8	9.5	11
112	White-light-emitting diodes using miscible polymer blend doped with phosphorescent dye. *Organic Electronics*, **2011**, 12, 891-896	3.5	11
111	Catalytic characteristics of carbon black for decomposition of ethane. *Carbon*, **2010**, 48, 2030-2036	10.4	11
110	Defect Dominated Hierarchical Ti-Metal-Organic Frameworks via a Linker Competitive Coordination Strategy for Toluene Removal. *Advanced Functional Materials*, **2021**, 31, 2102511	15.6	11
109	Electrostatically regulated ternary-doped carbon foams with exposed active sites as metal-free oxygen reduction electrocatalysts. *Nanoscale*, **2018**, 10, 19498-19508	7.7	11
108	Lysozyme-mediated biomineralization of titanium-tungsten oxide hybrid nanoparticles with high photocatalytic activity. *Chemical Communications*, **2014**, 50, 12392-5	5.8	10
107	Surface roughened 1-D Au host nanorods for visible light induced photocatalyst. *Electrochimica Acta*, **2013**, 97, 404-408	6.7	10
106	Solution processable silica thin film coating on microporous substrate with high tortuosity: application to a battery separator. *RSC Advances*, **2013**, 3, 16708	3.7	10
105	Polypyrrole/titanium oxide nanotube arrays composites as an active material for supercapacitors. *Journal of Nanoscience and Nanotechnology*, **2011**, 11, 4522-6	1.3	10
104	Spontaneous surface flattening via layer-by-layer assembly of interdiffusing polyelectrolyte multilayers. *Langmuir*, **2010**, 26, 17756-63	4	10
103	Morphology fixing agent for [6,6]-phenyl C61-butyric acid methyl ester (PC60BM) in planar-type perovskite solar cells for enhanced stability. *RSC Advances*, **2016**, 6, 51513-51519	3.7	10
102	Counterbalancing of morphology and conductivity of poly(3,4-ethylenedioxythiophene) polystyrene sulfonate based flexible devices. *Nanoscale*, **2016**, 8, 19557-19563	7.7	10
101	Large Area Platinum and Fluorine-doped Tin Oxide-free Dye sensitized Solar Cells with Silver-Nanoplate Embedded Poly(3,4-Ethylenedioxythiophene) Counter Electrode. *Electrochimica Acta*, **2016**, 187, 218-223	6.7	9
100	The role of non-solvent swelling in bulk hetero junction solar cells. *Solar Energy Materials and Solar Cells*, **2012**, 102, 196-200	6.4	9
99	Enhanced light output in bilayer light-emitting diodes with film thickness variations. *Chemical Physics Letters*, **2004**, 386, 101-104	2.5	9
98	Enhanced quantum efficiency in blue-emitting polymer/dielectric nanolayer nanocomposite light-emitting devices. *Materials Science and Engineering C*, **2004**, 24, 75-78	8.3	9
97	Boosting faradaic reactions of metal oxides on polymeric carbon nitride/PANI hybrid. *Energy Storage Materials*, **2020**, 25, 487-494	19.4	9

96	Optimized ion-conductive pathway in UV-cured solid polymer electrolytes for all-solid lithium/sodium ion batteries. *Journal of Membrane Science*, **2021**, 619, 118771	9.6	9
95	Growth of BiVO4 nanoparticles on a WO3 porous scaffold: improved water-splitting by high band-edge light harvesting. *Journal of Materials Chemistry A*, **2019**, 7, 4480-4485	13	8
94	Enhanced performance of layer-evolved bulk-heterojunction solar cells with Ag nanoparticles by sequential deposition. *Organic Electronics*, **2015**, 24, 325-329	3.5	8
93	Enhanced fill factor of tandem organic solar cells incorporating a diketopyrrolopyrrole-based low-bandgap polymer and optimized interlayer. *ChemSusChem*, **2015**, 8, 331-6	8.3	8
92	Hollow and yolk-shell structured off-stoichiometric tungsten trioxide via selective leaching and hydrogenation for enhanced lithium storage properties. *Electrochimica Acta*, **2016**, 215, 466-472	6.7	8
91	Solution processable formation of a few nanometer thick-disordered overlayer on the surface of open-ended TiO nanotubes. *Chemical Communications*, **2016**, 52, 13807-13810	5.8	8
90	The effect of a concentration graded cathode for organic solar cells. *Solar Energy Materials and Solar Cells*, **2011**, 95, 2443-2447	6.4	8
89	Long-term Stability of Conducting Polymers in Iodine/iodide Electrolytes: Beyond Conventional Platinum Catalysts. *Electrochimica Acta*, **2017**, 227, 95-100	6.7	7
88	Sub-100 nm scale polymer transfer printing process for organic photovoltaic devices. *Solar Energy Materials and Solar Cells*, **2013**, 109, 1-7	6.4	7
87	Improvement of Electrical Conductivity of Poly(3,4-ethylenedioxythiophene) (PEDOT) Thin Film. *Molecular Crystals and Liquid Crystals*, **2013**, 580, 76-82	0.5	7
86	Dye-sensitized solar cells containing polymer film with honey-comb like morphology. *Journal of Photochemistry and Photobiology A: Chemistry*, **2009**, 203, 151-154	4.7	7
85	Hole-transporting property of a chemically hybridized poly(vinylcarbazole)-fullerene. *Current Applied Physics*, **2004**, 4, 659-662	2.6	7
84	Tuning Selectivity of Photoelectrochemical Water Oxidation via Facet-Engineered Interfacial Energetics. *ACS Energy Letters*,4071-4078	20.1	7
83	Vertically constructed monolithic electrodes for sodium ion batteries: toward low tortuosity and high energy density. *Journal of Materials Chemistry A*, **2019**, 7, 25985-25992	13	7
82	Revisiting surface chemistry in TiO2: A critical role of ionic passivation for pH-independent and anti-corrosive photoelectrochemical water oxidation. *Chemical Engineering Journal*, **2021**, 407, 126929	14.7	7
81	Porous supraparticles of LiFePO4 nanorods with carbon for high rate Li-ion batteries. *Materials Express*, **2018**, 8, 316-324	1.3	7
80	Transferable Graphene Oxide by Stamping Nanotechnology: Electron-Transport Layer for Efficient Bulk-Heterojunction Solar Cells. *Angewandte Chemie*, **2013**, 125, 2946-2952	3.6	6
79	Facile control of intra- and inter-particle porosity in template-free synthesis of size-controlled nanoporous titanium dioxides beads for efficient organic□horganic heterojunction solar cells. *Journal of Power Sources*, **2015**, 279, 72-79	8.9	6

78	Effects of E-beam Irradiation on Physical and Electrochemical Properties of Inorganic Nanoparticle Separators with Different Particle Sizes. *Journal of the Electrochemical Society*, **2011**, 158, A511	3.9	6
77	Effect of MWCNT on the performances of the rounded shape natural graphite as anode material for lithium-ion batteries. *Journal of Solid State Electrochemistry*, **2010**, 14, 951-956	2.6	6
76	Effect of hole transporting layer doped with organic salts on performance of polymer electroluminescent devices. *Current Applied Physics*, **2006**, 6, 616-619	2.6	6
75	Stibnite sensitized hollow cubic TiO2 photoelectrodes for organic-inorganic heterojunction solar cells. *Solar Energy*, **2017**, 157, 434-440	6.8	6
74	Electrochemically controlled CdS@CdSe nanoparticles on ITO@TiO2 dual core□shell nanowires for enhanced photoelectrochemical hydrogen production. *Applied Surface Science*, **2020**, 505, 144569	6.7	6
73	Understanding morphological degradation of Ag nanoparticle during electrochemical CO2 reduction reaction by identical location observation. *Electrochimica Acta*, **2021**, 371, 137795	6.7	6
72	Disordered-Layer-Mediated Reverse Metal-Oxide Interactions for Enhanced Photocatalytic Water Splitting. *Nano Letters*, **2021**, 21, 5247-5253	11.5	6
71	Engineered Polymeric Carbon Nitride Additive for Energy Storage Materials: A Review. *Advanced Functional Materials*, **2021**, 31, 2102300	15.6	6
70	Artificial photosynthesis for high-value-added chemicals: Old material, new opportunity **2022**, 4, 21-44		6
69	Incorporation of a Metal Oxide Interlayer using a Virus-Templated Assembly for Synthesis of Graphene-Electrode-Based Organic Photovoltaics. *ChemSusChem*, **2015**, 8, 2385-91	8.3	5
68	Unveiling the origin of performance reduction in perovskite solar cells with TiO2 electron transport layer: Conduction band minimum mismatches and chemical interactions at buried interface. *Applied Surface Science*, **2019**, 495, 143490	6.7	5
67	Effect of incorporation of TiO2 nanoparticles into oriented TiO2 nanotube based dye-sensitized solar cells. *Journal of Nanoscience and Nanotechnology*, **2009**, 9, 7436-9	1.3	5
66	Enhanced photoelectrochemical cell property from alpha-Fe2O3 nanoparticle decoration on vertically grown TiO2 nanotubes arrays. *Journal of Nanoscience and Nanotechnology*, **2011**, 11, 7290-3	1.3	5
65	Effect of Oxidant on Morphology and Electrochemistry of Polypyrrole-Coated Graphite Fiber. *Electrochemical and Solid-State Letters*, **2008**, 11, A68		5
64	White light emission from a polymer bilayer by incomplete cascade energy transfer. *Current Applied Physics*, **2006**, 6, 640-643	2.6	5
63	WHITE-ELECTROLUMINESCENCE DEVICE BASED ON POLYMER/QUANTUM DOT NANOCOMPOSITES. *Journal of Nonlinear Optical Physics and Materials*, **2005**, 14, 481-486	0.8	5
62	A two-photon tandem black phosphorus quantum dot-sensitized BiVO4 photoanode for solar water splitting. *Energy and Environmental Science*,	35.4	5
61	Highly dispersible graphene oxide nanoflakes in pseudo-gel-polymer porous separators for boosting ion transportation. *Carbon*, **2020**, 166, 427-435	10.4	5

60	Large and reversible sodium storage through interlaced reaction design. *Energy Storage Materials*, **2020**, 25, 687-694	19.4	5
59	Solar-harvesting lead halide perovskite for artificial photosynthesis. *Journal of Energy Chemistry*, **2021**, 62, 11-26	12	5
58	Stretchable Hole Extraction Layer for Improved Stability in Perovskite Solar Cells. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 8004-8010	8.3	4
57	Solar Cells: Oriented Grains with Preferred Low-Angle Grain Boundaries in Halide Perovskite Films by Pressure-Induced Crystallization (Adv. Energy Mater. 10/2018). *Advanced Energy Materials*, **2018**, 8, 1870045	21.8	4
56	Cu2O□u2Se Mixed-Phase Nanoflake Arrays: pH-Universal Hydrogen Evolution Reactions with Ultralow Overpotential. *ChemElectroChem*, **2019**, 6, 5014-5021	4.3	4
55	Enhancement of the power conversion efficiency in a polymer solar cell using a work-function-controlled TimSinOx interlayer. *Journal of Materials Chemistry A*, **2014**, 2, 2033-2039	13	4
54	Optimization of polymeric host composition for polymer-based electrophosphorescent devices. *Journal of Luminescence*, **2009**, 129, 496-500	3.8	4
53	Fabrication and Photocatalytic Effects of Tungsten Trioxide Nano-Pattern Arrays. *Materials Express*, **2011**, 1, 245-251	1.3	4
52	Optimization of conditions for hydrogen production from anodized TiO2 nanotube-based photoelectrochemical cells. *Journal of Nanoscience and Nanotechnology*, **2009**, 9, 7293-7	1.3	4
51	Continuous Oxygen Vacancy Gradient in TiO 2 Photoelectrodes by a Photoelectrochemical-Driven □elf-Purification□Process. *Advanced Energy Materials*,2103495	21.8	4
50	PEDOT Polymer Film Based Counter Electrodes for Pt-free Dye-Sensitized Solar Cells. *Journal of Electrochemical Science and Technology*, **2013**, 4, 89-92	3.2	4
49	A Sharp Focus on Perovskite Solar Cells at Sungkyun International Solar Forum (SISF). *ACS Energy Letters*, **2016**, 1, 500-502	20.1	4
48	A highly activated iron phosphate over-layer for enhancing photoelectrochemical ammonia decomposition. *Journal of Hazardous Materials*, **2021**, 408, 124900	12.8	4
47	High-Valent Iodoplumbate-Rich Perovskite Precursor Solution Solar Illumination for Reproducible Power Conversion Efficiency. *Journal of Physical Chemistry Letters*, **2021**, 12, 1676-1682	6.4	4
46	Au/MoS2 tips as auxiliary rate aligners for the photocatalytic generation of syngas with a tunable composition. *Applied Catalysis B: Environmental*, **2022**, 308, 121219	21.8	4
45	Hot Scientific Debate on Halide Perovskites: Fundamentals, Photovoltaics, and Optoelectronics at Eighth Sungkyun International Solar Forum 2019 (SISF 2019). *ACS Energy Letters*, **2019**, 4, 2475-2479	20.1	3
44	Carbon-Coated Supraballs of Randomly Packed LiFePO4 Nanoplates for High Rate and Stable Cycling of Li-Ion Batteries. *Particle and Particle Systems Characterization*, **2019**, 36, 1900149	3.1	3
43	Tailoring of the plasmonic and waveguide effect in bulk-heterojunction photovoltaic devices with ordered, nanopatterned structures. *Organic Electronics*, **2014**, 15, 3120-3126	3.5	3

42	Efficient and low potential operative host/guest concentration graded bilayer polymer electrophosphorescence devices. *Journal of Luminescence*, **2012**, 132, 870-874	3.8	3
41	Temperature sensing behavior of poly(3,4-ethylenedioxythiophene) thin film. *Synthetic Metals*, **2013**, 185-186, 52-55	3.6	3
40	Quasi-solid-state Dye-sensitized Solar Cells with Macropore-containing Hierarchical Electrodes. *Electrochimica Acta*, **2014**, 135, 192-198	6.7	3
39	Dual functions of a new n-type conjugated dendrimer: light-emitting material and additive for polymer electroluminescent devices. *Journal Physics D: Applied Physics*, **2009**, 42, 035101	3	3
38	Enhanced photocurrent density of tungsten oxide hollow particle arrays produced by colloidal template synthesis. *Journal of Nanoscience and Nanotechnology*, **2011**, 11, 1538-41	1.3	3
37	Electrophosphorescent devices from a poly(9-vinylcarbazole)/tris(2-phenylpyridine)iridium(III) bilayer with a concentration gradient. *Applied Physics Letters*, **2007**, 90, 043514	3.4	3
36	Enhanced color purity and stability from polymer/nanoporous silica nanocomposite blue light-emitting diodes. *Synthetic Metals*, **2005**, 154, 145-148	3.6	3
35	Unprecedented electrocatalytic oxygen evolution performances by cobalt-incorporated molybdenum carbide microflowers with controlled charge re-distribution. *Journal of Materials Chemistry A*, **2021**, 9, 1770-1783	13	3
34	Graphene Photodetectors: High-Performance Perovskite–Graphene Hybrid Photodetector (Adv. Mater. 1/2015). *Advanced Materials*, **2015**, 27, 188-188	24	2
33	Color-tunable electrophosphorescent device fabricated by a photo-bleaching method. *Thin Solid Films*, **2011**, 520, 452-456	2.2	2
32	Back Cover: Enhancement of Donor–Acceptor Polymer Bulk Heterojunction Solar Cell Power Conversion Efficiencies by Addition of Au Nanoparticles (Angew. Chem. Int. Ed. 24/2011). *Angewandte Chemie - International Edition*, **2011**, 50, 5404-5404	16.4	2
31	Inverted Bottom-Emission Polymer Light-Emitting Devices Doped with Organic Salt. *Japanese Journal of Applied Physics*, **2009**, 48, 110203	1.4	2
30	Enhanced photocatalytic oxidation properties in Pt-TiO2 thin films by grounding. *Korean Journal of Chemical Engineering*, **2009**, 26, 392-397	2.8	2
29	Edge functionalized graphene nanoribbons with tunable band edges for carrier transport interlayers in organic-inorganic perovskite solar cells. *Physical Chemistry Chemical Physics*, **2020**, 22, 2955-2962	3.6	2
28	Enhanced desalination performance of nitrogen-doped porous carbon electrode in redox-mediated deionization. *Desalination*, **2021**, 520, 115333	10.3	2
27	Self-Organized Formation of Embossed Nanopatterns on Various Metal Substrates: Application to Flexible Solar Cells. *Electrochimica Acta*, **2015**, 176, 636-641	6.7	1
26	Enthusiastic Discussions on Halide Perovskite Materials beyond Photovoltaics at Sungkyun International Solar Forum 2017 (SISF2017). *ACS Energy Letters*, **2018**, 3, 199-203	20.1	1
25	Polymer Solar Cells: Efficiency Increase in Flexible Bulk Heterojunction Solar Cells with a Nano-Patterned Indium Zinc Oxide Anode (Adv. Energy Mater. 11/2012). *Advanced Energy Materials* , **2012**, 2, 1282-1282	21.8	1

24	Charge carrier trapping and enhanced electroluminescent efficiency of blue light emitting polymer with gold nanoparticles. *Journal of Nanoscience and Nanotechnology*, **2009**, 9, 7451-5	1.3	1
23	Generation behavior of elctricity in a microbial fuel cell. *Korean Journal of Chemical Engineering*, **2010**, 27, 546-550	2.8	1
22	Improving the oxygen evolution reaction using electronic structure modulation of sulfur-retaining nickel-based electrocatalysts. *Journal of Materials Chemistry A*, **2021**, 9, 27034-27040	13	1
21	Inhibition of iodide ion migration in flexible perovskite solar cells using oxide□metal□oxide transparent electrode. *Surfaces and Interfaces*, **2021**, 27, 101546	4.1	1
20	PEDOT:PSS/Single Wall Carbon Nanotube Composite Nanoparticles as an Additive for Electric-double Layer Capacitor. *Journal of Electrochemical Science and Technology*, **2012**, 3, 143-148	3.2	1
19	Metal-Assisted Efficient Nanotubular Electrocatalyst of MoS2 for Hydrogen Production. *ChemCatChem*, **2021**, 13, 3237-3246	5.2	1
18	Unravelling the K-promotion effect in highly active and stable Fe5C2 nanoparticles for catalytic linear □-olefin production. *Materials Advances*, **2021**, 2, 1050-1058	3.3	1
17	Preparation of multilayer periodic nanopatterned WO-based photoanode by reverse nanoimprinting for water splitting. *Nanotechnology*, **2021**, 32,	3.4	1
16	Expandable crosslinked polymer coatings on silicon nanoparticle anode toward high-rate and long-cycle-life lithium-ion battery. *Applied Surface Science*, **2022**, 571, 151294	6.7	1
15	Unveiling the enhanced electrocatalytic activity at electrochemically synthesized Pt-WO hybrid nanostructure interfaces. *Chemical Communications*, **2021**, 57, 11165-11168	5.8	1
14	Interfacial nitrogen modulated Z-scheme photoanode for solar water oxidation. *Journal of Power Sources*, **2022**, 519, 230784	8.9	0
13	Pyrrolidinium-PEG Ionic Copolyester: Li-Ion Accelerator in Polymer Network Solid-State Electrolytes. *Advanced Energy Materials*, **2021**, 11, 2102660	21.8	0
12	Unnatural Hygroscopic Property of Nicotinic Acid by Restructuring Molecular Density: Self-Healing Halide Perovskites. *Journal of Physical Chemistry Letters*, **2021**, 12, 8932-8938	6.4	0
11	Enhanced band-filling effect in halide perovskites via hydrophobic conductive linkers. *Cell Reports Physical Science*, **2022**, 3, 100800	6.1	0
10	Revealing improved electrocatalytic performances of electrochemically synthesized S and Ni doped Fe2O3 nanostructure interfaces. *Applied Surface Science*, **2022**, 588, 152894	6.7	0
9	Monolithic Lead Halide Perovskite Photoelectrochemical Cell with 9.16% Applied Bias Photon-to-Current Efficiency. *ACS Energy Letters*, **2022**, 7, 320-327	20.1	0
8	Li-Ion Batteries: Carbon-Coated Supraballs of Randomly Packed LiFePO4 Nanoplates for High Rate and Stable Cycling of Li-Ion Batteries (Part. Part. Syst. Charact. 7/2019). *Particle and Particle Systems Characterization*, **2019**, 36, 1970019	3.1	
7	Photoelectrochemical properties of vertically oriented hematite/gold multi-block nanorod arrays and their comparison to pure hematite nanorod arrays. *Journal of Nanoscience and Nanotechnology*, **2013**, 13, 1910-3	1.3	

6	Porous Materials: Multi-Scale Pore Generation from Controlled Phase Inversion: Application to Separators for Li-Ion Batteries (Adv. Energy Mater. 11/2013). *Advanced Energy Materials*, **2013**, 3, 1394-1394	21.8
5	Color-stable white-light-emitting diodes doped with phosphorescent dopants via enhanced energy transfer through homogeneous morphology. *Journal of Nanoscience and Nanotechnology*, **2013**, 13, 4203-6	1.3
4	Inside Cover: Polyaniline-Based Conducting Polymer Compositions with a High Work Function for Hole-Injection Layers in Organic Light-Emitting Diodes: Formation of Ohmic Contacts (ChemSusChem 3/2011). *ChemSusChem*, **2011**, 4, 286-286	8.3
3	P-197: Polymer Nanocomposite Blue-Light-Emitting Diodes. *Digest of Technical Papers SID International Symposium*, **2006**, 37, 968	0.5
2	BLUE LIGHT-EMITTING POLYMER/DIELECTRIC NANOLAYER NANOCOMPOSITES: IMPEDIMENT OF EXCIMER FORMATION AND ENHANCEMENT OF PHOTOSTABILITY. *Journal of Nonlinear Optical Physics and Materials*, **2004**, 13, 607-611	0.8
1	Artificial Photosynthesis for Value-Added Chemicals Production. *Ceramist*, **2020**, 23, 324-338	0.3