Nam-Gyu Park

List of Publications by Citations

340 papers	50,256 citations	96 h-index	221 g-index
375 ext. papers	56,374 ext. citations	10.9 avg, IF	8.49 L-index

#	Paper	IF	Citations
340	Lead iodide perovskite sensitized all-solid-state submicron thin film mesoscopic solar cell with efficiency exceeding 9%. *Scientific Reports*, **2012**, 2, 591	4.9	5719
339	6.5% efficient perovskite quantum-dot-sensitized solar cell. *Nanoscale*, **2011**, 3, 4088-93	7.7	2465
338	Water photolysis at 12.3% efficiency via perovskite photovoltaics and Earth-abundant catalysts. *Science*, **2014**, 345, 1593-6	33.3	1920
337	Highly Reproducible Perovskite Solar Cells with Average Efficiency of 18.3% and Best Efficiency of 19.7% Fabricated via Lewis Base Adduct of Lead(II) Iodide. *Journal of the American Chemical Society*, **2015**, 137, 8696-9	16.4	1751
336	Growth of CH3NH3PbI3 cuboids with controlled size for high-efficiency perovskite solar cells. *Nature Nanotechnology*, **2014**, 9, 927-32	28.7	1442
335	Organometal Perovskite Light Absorbers Toward a 20% Efficiency Low-Cost Solid-State Mesoscopic Solar Cell. *Journal of Physical Chemistry Letters*, **2013**, 4, 2423-2429	6.4	1104
334	Formamidinium and Cesium Hybridization for Photo- and Moisture-Stable Perovskite Solar Cell. *Advanced Energy Materials*, **2015**, 5, 1501310	21.8	1085
333	Perovskite solar cells: an emerging photovoltaic technology. *Materials Today*, **2015**, 18, 65-72	21.8	1073
332	Comparison of Dye-Sensitized Rutile- and Anatase-Based TiO2 Solar Cells. *Journal of Physical Chemistry B*, **2000**, 104, 8989-8994	3.4	981
331	Perovskite solar cells: from materials to devices. *Small*, **2015**, 11, 10-25	11	967
330	Parameters Affecting I-V Hysteresis of CH3NH3PbI3 Perovskite Solar Cells: Effects of Perovskite Crystal Size and Mesoporous TiO2 Layer. *Journal of Physical Chemistry Letters*, **2014**, 5, 2927-34	6.4	885
329	High efficiency solid-state sensitized solar cell-based on submicrometer rutile TiO2 nanorod and CH3NH3PbI3 perovskite sensitizer. *Nano Letters*, **2013**, 13, 2412-7	11.5	825
328	Towards stable and commercially available perovskite solar cells. *Nature Energy*, **2016**, 1,	62.3	763
327	Self-formed grain boundary healing layer for highly efficient CH3NH3PbI3 perovskite solar cells. *Nature Energy*, **2016**, 1,	62.3	757
326	Influence of Electrical Potential Distribution, Charge Transport, and Recombination on the Photopotential and Photocurrent Conversion Efficiency of Dye-Sensitized Nanocrystalline TiO2 Solar Cells: A Study by Electrical Impedance and Optical Modulation Techniques. *Journal of Physical Chemistry B*, **2000**, 104, 2044-2052	3.4	734
325	High-efficiency perovskite solar cells based on the black polymorph of HC(NH2)2 PbI3. *Advanced Materials*, **2014**, 26, 4991-8	24	732
324	Mechanism of carrier accumulation in perovskite thin-absorber solar cells. *Nature Communications*, **2013**, 4, 2242	17.4	702

323	Lewis Acid-Base Adduct Approach for High Efficiency Perovskite Solar Cells. *Accounts of Chemical Research*, **2016**, 49, 311-9	24.3	690
322	High-Efficiency Perovskite Solar Cells. *Chemical Reviews*, **2020**, 120, 7867-7918	68.1	587
321	Slow Dynamic Processes in Lead Halide Perovskite Solar Cells. Characteristic Times and Hysteresis. *Journal of Physical Chemistry Letters*, **2014**, 5, 2357-63	6.4	556
320	Organolead Halide Perovskite: New Horizons in Solar Cell Research. *Journal of Physical Chemistry C*, **2014**, 118, 5615-5625	3.8	549
319	Nano-embossed Hollow Spherical TiO2 as Bifunctional Material for High-Efficiency Dye-Sensitized Solar Cells. *Advanced Materials*, **2008**, 20, 195-199	24	531
318	11% Efficient Perovskite Solar Cell Based on ZnO Nanorods: An Effective Charge Collection System. *Journal of Physical Chemistry C*, **2014**, 118, 16567-16573	3.8	519
317	Highly efficient and bending durable perovskite solar cells: toward a wearable power source. *Energy and Environmental Science*, **2015**, 8, 916-921	35.4	518
316	Universal Approach toward Hysteresis-Free Perovskite Solar Cell via Defect Engineering. *Journal of the American Chemical Society*, **2018**, 140, 1358-1364	16.4	512
315	Printable organometallic perovskite enables large-area, low-dose X-ray imaging. *Nature*, **2017**, 550, 87-91	50.4	503
314	Symmetric redox supercapacitor with conducting polyaniline electrodes. *Journal of Power Sources*, **2002**, 103, 305-309	8.9	468
313	Formation of Highly Efficient Dye-Sensitized Solar Cells by Hierarchical Pore Generation with Nanoporous TiO2 Spheres. *Advanced Materials*, **2009**, 21, 3668-3673	24	430
312	A highly efficient organic sensitizer for dye-sensitized solar cells. *Chemical Communications*, **2007**, 4887-9	5.8	399
311	Control of I-V hysteresis in CH3NH3PbI3 perovskite solar cell. *Journal of Physical Chemistry Letters*, **2015**, 6, 4633-9	6.4	379
310	Evaluation of the Charge-Collection Efficiency of Dye-Sensitized Nanocrystalline TiO2 Solar Cells. *Journal of Physical Chemistry B*, **1999**, 103, 782-791	3.4	376
309	Consensus statement for stability assessment and reporting for perovskite photovoltaics based on ISOS procedures. *Nature Energy*, **2020**, 5, 35-49	62.3	369
308	Morphology-photovoltaic property correlation in perovskite solar cells: One-step versus two-step deposition of CH3NH3PbI3. *APL Materials*, **2014**, 2, 081510	5.7	337
307	Dye-Sensitized TiO2 Solar Cells: Structural and Photoelectrochemical Characterization of Nanocrystalline Electrodes Formed from the Hydrolysis of TiCl4. *Journal of Physical Chemistry B*, **1999**, 103, 3308-3314	3.4	327
306	Ambipolar Diffusion of Photocarriers in Electrolyte-Filled, Nanoporous TiO2 *Journal of Physical Chemistry B*, **2000**, 104, 3930-3936	3.4	320

305	Scalable fabrication and coating methods for perovskite solar cells and solar modules. *Nature Reviews Materials*, **2020**, 5, 333-350	73.3	292
304	Nanowire perovskite solar cell. *Nano Letters*, **2015**, 15, 2120-6	11.5	282
303	15.76% efficiency perovskite solar cells prepared under high relative humidity: importance of PbI2 morphology in two-step deposition of CH3NH3PbI3. *Journal of Materials Chemistry A*, **2015**, 3, 8808-8815	13	267
302	Methodologies toward Highly Efficient Perovskite Solar Cells. *Small*, **2018**, 14, e1704177	11	266
301	Causes and Solutions of Recombination in Perovskite Solar Cells. *Advanced Materials*, **2019**, 31, e1803019	24	242
300	An ultra-thin, un-doped NiO hole transporting layer of highly efficient (16.4%) organic-inorganic hybrid perovskite solar cells. *Nanoscale*, **2016**, 8, 11403-12	7.7	242
299	Size-dependent scattering efficiency in dye-sensitized solar cell. *Inorganica Chimica Acta*, **2008**, 361, 677-683	2.7	238
298	Selective positioning of organic dyes in a mesoporous inorganic oxide film. *Nature Materials*, **2009**, 8, 665-71	27	226
297	Quantum-dot-sensitized solar cell with unprecedentedly high photocurrent. *Scientific Reports*, **2013**, 3, 1050	4.9	220
296	Organolead Halide Perovskites for Low Operating Voltage Multilevel Resistive Switching. *Advanced Materials*, **2016**, 28, 6562-7	24	219
295	A 4.2% efficient flexible dye-sensitized TiO2 solar cells using stainless steel substrate. *Solar Energy Materials and Solar Cells*, **2006**, 90, 574-581	6.4	216
294	On the Current-Voltage Hysteresis in Perovskite Solar Cells: Dependence on Perovskite Composition and Methods to Remove Hysteresis. *Advanced Materials*, **2019**, 31, e1805214	24	214
293	Synthesis, structure, and photovoltaic property of a nanocrystalline 2H perovskite-type novel sensitizer (CH3CH2NH3)PbI3. *Nanoscale Research Letters*, **2012**, 7, 353	5	203
292	Material and Device Stability in Perovskite Solar Cells. *ChemSusChem*, **2016**, 9, 2528-2540	8.3	198
291	Multifunctional Chemical Linker Imidazoleacetic Acid Hydrochloride for 21% Efficient and Stable Planar Perovskite Solar Cells. *Advanced Materials*, **2019**, 31, e1902902	24	195
290	Characteristics of PVdF-HFP/TiO2 composite membrane electrolytes prepared by phase inversion and conventional casting methods. *Electrochimica Acta*, **2006**, 51, 5636-5644	6.7	195
289	Chemical Sintering of Nanoparticles: A Methodology for Low-Temperature Fabrication of Dye-Sensitized TiO2 Films. *Advanced Materials*, **2005**, 17, 2349-2353	24	194
288	Simultaneous Improvement of Photovoltaic Performance and Stability by In Situ Formation of 2D Perovskite at (FAPbI3)0.88(CsPbBr3)0.12/CuSCN Interface. *Advanced Energy Materials*, **2018**, 8, 1702714	21.8	191

287	Dye-sensitized nanocrystalline solar cells based on composite polymer electrolytes containing fumed silica nanoparticles. *Chemical Communications*, **2004**, 1662-3	5.8	189
286	Compact Inverse-Opal Electrode Using Non-Aggregated TiO2 Nanoparticles for Dye-Sensitized Solar Cells. *Advanced Functional Materials*, **2009**, 19, 1093-1099	15.6	184
285	Poly(ethylenedioxythiophene) (PEDOT) as polymer electrode in redox supercapacitor. *Electrochimica Acta*, **2004**, 50, 843-847	6.7	184
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283	The Interplay between Trap Density and Hysteresis in Planar Heterojunction Perovskite Solar Cells. *Nano Letters*, **2017**, 17, 4270-4276	11.5	175
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279	Ferroelectric Polarization in CH3NH3PbI3 Perovskite. *Journal of Physical Chemistry Letters*, **2015**, 6, 172963[illegible]	6.4	165
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275	Stability Issues on Perovskite Solar Cells. *Photonics*, **2015**, 2, 1139-1151	2.2	158
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273	Two-Step Sol[illegible]el Method-Based TiO2 Nanoparticles with Uniform Morphology and Size for Efficient Photo-Energy Conversion Devices. *Chemistry of Materials*, **2010**, 22, 1958-1965	9.6	153
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270	Effect of Selective Contacts on the Thermal Stability of Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2017**, 9, 7148-7153	9.5	145

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267	Materials and Methods for Interface Engineering toward Stable and Efficient Perovskite Solar Cells. *ACS Energy Letters*, **2020**, 5, 2742-2786	20.1	141
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265	Hybrid solar cells with vertically aligned CdTe nanorods and a conjugated polymer. *Applied Physics Letters*, **2005**, 86, 113101	3.4	135
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263	Real-Space Imaging of the Atomic Structure of Organic-Inorganic Perovskite. *Journal of the American Chemical Society*, **2015**, 137, 16049-54	16.4	131
262	Effects of Seed Layer on Growth of ZnO Nanorod and Performance of Perovskite Solar Cell. *Journal of Physical Chemistry C*, **2015**, 119, 10321-10328	3.8	130
261	Impact of Interfacial Layers in Perovskite Solar Cells. *ChemSusChem*, **2017**, 10, 3687-3704	8.3	129
260	Verification and mitigation of ion migration in perovskite solar cells. *APL Materials*, **2019**, 7, 041111	5.7	125
259	Inorganic Hole Transporting Materials for Stable and High Efficiency Perovskite Solar Cells. *Journal of Physical Chemistry C*, **2018**, 122, 14039-14063	3.8	125
258	Dye-sensitized solar cells based on composite solid polymer electrolytes. *Chemical Communications*, **2005**, 889-91	5.8	124
257	Niobium Doping Effects on TiO2 Mesoscopic Electron Transport Layer-Based Perovskite Solar Cells. *ChemSusChem*, **2015**, 8, 2392-8	8.3	123
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253	Research Direction toward Scalable, Stable, and High Efficiency Perovskite Solar Cells. *Advanced Energy Materials*, **2020**, 10, 1903106	21.8	118
252	Moth-Eye TiO2 Layer for Improving Light Harvesting Efficiency in Perovskite Solar Cells. *Small*, **2016**, 12, 2443-9	11	115

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246	High efficiency solar cells combining a perovskite and a silicon heterojunction solar cells via an optical splitting system. *Applied Physics Letters*, **2015**, 106, 013506	3.4	100
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234	Effect of bidentate and tridentate additives on the photovoltaic performance and stability of perovskite solar cells. *Journal of Materials Chemistry A*, **2019**, 7, 4977-4987	13	83

233	Fully solution-processed transparent electrodes based on silver nanowire composites for perovskite solar cells. *Nanoscale*, **2016**, 8, 6308-16	7.7	82
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222	Raman spectroscopic studies of Ni□W oxide thin films. *Solid State Ionics*, **2001**, 140, 135-139	3.3	78
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218	Analysing the effect of crystal size and structure in highly efficient CH3NH3PbI3 perovskite solar cells by spatially resolved photo- and electroluminescence imaging. *Nanoscale*, **2015**, 7, 19653-62	7.7	75
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215	Nano-grain SnO2 electrodes for high conversion efficiency SnO2DSSC. *Solar Energy Materials and Solar Cells*, **2011**, 95, 179-183	6.4	72
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213	Characterization of poly(vinylidenefluoride-co-hexafluoropropylene)-based polymer electrolyte filled with rutile TiO2 nanoparticles. *Solid State Ionics*, **2003**, 161, 121-131	3.3	71
212	Crystal growth engineering for high efficiency perovskite solar cells. *CrystEngComm*, **2016**, 18, 5977-5985	3.3	71
211	Precursor Engineering for a Large-Area Perovskite Solar Cell with >19% Efficiency. *ACS Energy Letters*, **2019**, 4, 2393-2401	20.1	70
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192	A Review on Scaling Up Perovskite Solar Cells. *Advanced Functional Materials*, **2021**, 31, 2008621	15.6	54
191	Paradoxical Approach with a Hydrophilic Passivation Layer for Moisture-Stable, 23% Efficient Perovskite Solar Cells. *ACS Energy Letters*, **2020**, 5, 3268-3275	20.1	53
190	Atomic layer deposition for efficient and stable perovskite solar cells. *Chemical Communications*, **2019**, 55, 2403-2416	5.8	52
189	Enhanced Photovoltaic Properties of SiO2-treated ZnO Nanocrystalline Electrode for Dye-sensitized Solar Cell. *Chemistry Letters*, **2007**, 36, 1506-1507	1.7	52
188	New Superconducting Intercalation Compounds: (HgX2)0.5Bi2Sr2CaCu2Oy (X = Br and I). *Journal of the American Chemical Society*, **1994**, 116, 11564-11565	16.4	52
187	Proton-transfer-induced 3D/2D hybrid perovskites suppress ion migration and reduce luminance overshoot. *Nature Communications*, **2020**, 11, 3378	17.4	51
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183	Empowering Semi-Transparent Solar Cells with Thermal-Mirror Functionality. *Advanced Energy Materials*, **2016**, 6, 1502466	21.8	49
182	A TiO2 embedded structure for perovskite solar cells with anomalous grain growth and effective electron extraction. *Journal of Materials Chemistry A*, **2017**, 5, 1406-1414	13	48
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