

# Gill Sang Han

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

71 papers	2,599 citations	25 h-index	50 g-index
76 ext. papers	2,964 ext. citations	9.9 avg, IF	5.09 L-index

#	Paper	IF	Citations
71	Photophysical, optical, and photocatalytic hydrogen production properties of layered-type BaNb <sub>2-x</sub> Ta <sub>x</sub> P <sub>2</sub> O <sub>11</sub> (x = 0, 0.5, 1.0, 1.5, and 2.0) compounds. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 98, 26-32	9.1	0
70	Defect Healing in FAPb(I 1- x Br x ) 3 Perovskites: Multifunctional Fluorinated Sulfonate Surfactant Anchoring Enables >21% Modules with Improved Operation Stability (Adv. Energy Mater. 20/2022). <i>Advanced Energy Materials</i> , <b>2022</b> , 12, 2270083	21.8	
69	Stable and Efficient Methylammonium-, Cesium-, and Bromide-Free Perovskite Solar Cells by In-Situ Interlayer Formation. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2007520	15.6	19
68	Recent cutting-edge strategies for flexible perovskite solar cells toward commercialization. <i>Chemical Communications</i> , <b>2021</b> , 57, 11604-11612	5.8	2
67	Formamidine disulfide oxidant as a localised electron scavenger for >20% perovskite solar cell modules. <i>Energy and Environmental Science</i> , <b>2021</b> , 14, 4903-4914	35.4	20
66	In-Situ Nano-Auger Probe of Chloride-Ions during CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Formation. <i>Materials</i> , <b>2021</b> , 14,	3.5	2
65	Synthesis and adsorption properties of gelatin-conjugated hematite (α-Fe <sub>2</sub> O <sub>3</sub> ) nanoparticles for lead removal from wastewater. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 416, 125696	12.8	10
64	Copper phosphate compounds with visible-to-near-infrared-active photo-fenton-like photocatalytic properties. <i>Journal of the American Ceramic Society</i> , <b>2020</b> , 103, 5120-5128	3.8	9
63	Tailored 2D/3D Halide Perovskite Heterointerface for Substantially Enhanced Endurance in Conducting Bridge Resistive Switching Memory. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 17039-17045 <sup>31</sup>	9.5	
62	Revisiting Effects of Ligand-Capped Nanocrystals in Perovskite Solar Cells. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 1032-1034	20.1	16
61	Real Impacts of Ligand-Capped Nanocrystals in Perovskite Solar Cells. <i>ECS Meeting Abstracts</i> , <b>2020</b> , MA2020-02, 1901-1901	0	
60	Chlorine-modified SnO <sub>2</sub> electron transport layer for high-efficiency perovskite solar cells. <i>Information Materials</i> , <b>2020</b> , 2, 401-408	23.1	30
59	Enhancing Solar Water Splitting of Textured BiVO <sub>4</sub> by Dual Effect of a Plasmonic Silver Nanoshell: Plasmon-Induced Light Absorption and Enhanced Hole Transport. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 11886-11892	6.1	4
58	Flexible Perovskite Solar Cells. <i>Joule</i> , <b>2019</b> , 3, 1850-1880	27.8	146
57	Spin-Coating Process for 10 cm × 10 cm Perovskite Solar Modules Enabled by Self-Assembly of SnO <sub>2</sub> Nanocolloids. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 1845-1851	20.1	34
56	Multi-functional transparent electrode for reliable flexible perovskite solar cells. <i>Journal of Power Sources</i> , <b>2019</b> , 435, 226768	8.9	15
55	Ultimate Charge Extraction of Monolayer PbS Quantum Dot for Observation of Multiple Exciton Generation. <i>ChemPhysChem</i> , <b>2019</b> , 20, 2657-2661	3.2	

54	Safety and efficacy of tacrolimus-coated silicone plates as an alternative to mitomycin C in a rabbit model of conjunctival fibrosis. <i>PLoS ONE</i> , <b>2019</b> , 14, e0219194	3.7	0
53	Controlled oxidation of Ni for stress-free hole transport layer of large-scale perovskite solar cells. <i>Nano Research</i> , <b>2019</b> , 12, 3089-3094	10	6
52	New down-converter for UV-stable perovskite solar cells: Phosphor-in-glass. <i>Journal of Power Sources</i> , <b>2018</b> , 389, 135-139	8.9	14
51	Highly Bendable Flexible Perovskite Solar Cells on a Nanoscale Surface Oxide Layer of Titanium Metal Plates. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 4697-4704	9.5	37
50	Electron extraction mechanism in low hysteresis perovskite solar cells using single crystal TiO <sub>2</sub> nanorods. <i>Solar Energy</i> , <b>2018</b> , 167, 251-257	6.8	7
49	Correlation between photoactivity of TiO <sub>2</sub> and diffusion of Na <sup>+</sup> ions from soda lime glass. <i>Materials Letters</i> , <b>2018</b> , 228, 351-355	3.3	4
48	In-Situ Formed Type I Nanocrystalline Perovskite Film for Highly Efficient Light-Emitting Diode. <i>ACS Nano</i> , <b>2017</b> , 11, 3311-3319	16.7	134
47	Low-Temperature Modification of ZnO Nanoparticles Film for Electron-Transport Layers in Perovskite Solar Cells. <i>ChemSusChem</i> , <b>2017</b> , 10, 2425-2430	8.3	24
46	Infiltration of methylammonium metal halide in highly porous membranes using sol-gel-derived coating method. <i>Applied Surface Science</i> , <b>2017</b> , 416, 96-102	6.7	9
45	Dual function of a high-contrast hydrophobic/hydrophilic coating for enhanced stability of perovskite solar cells in extremely humid environments. <i>Nano Research</i> , <b>2017</b> , 10, 3885-3895	10	18
44	BiVO <sub>4</sub> /WO <sub>3</sub> /SnO <sub>2</sub> Double-Heterojunction Photoanode with Enhanced Charge Separation and Visible-Transparency for Bias-Free Solar Water-Splitting with a Perovskite Solar Cell. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 1479-1487	9.5	121
43	Highly stable perovskite solar cells in humid and hot environment. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 14733-14740	13	40
42	Nanodome Structured BiVO <sub>4</sub> /GaOxN <sub>1-x</sub> Photoanode for Solar Water Oxidation. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700323	4.6	22
41	Substrate effects on photoluminescence and low temperature phase transition of methylammonium lead iodide hybrid perovskite thin films. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 023902	3.4	11
40	Methylammonium lead iodide perovskite-graphene hybrid channels in flexible broadband phototransistors. <i>Carbon</i> , <b>2016</b> , 105, 353-361	10.4	98
39	Indium Tin Oxide Nanowire Array Based CdSe/CdS/TiO <sub>2</sub> One-Dimensional Heterojunction Photoelectrode for Enhanced Solar Hydrogen Production. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2016</b> , 4, 1161-1168	8.3	30
38	Epitaxial Anatase TiO <sub>2</sub> Nanorods Array with Reduced Interfacial Charge Recombination for Solar Water Splitting. <i>Journal of the Electrochemical Society</i> , <b>2016</b> , 163, H469-H473	3.9	7
37	Influence of annealing atmosphere on the electrical conductivity of copper nanoparticle films. <i>Electronic Materials Letters</i> , <b>2016</b> , 12, 338-342	2.9	1

- 36 Design of water stable green-emitting CH<sub>3</sub>NH<sub>3</sub>PbBr<sub>3</sub> perovskite luminescence materials with encapsulation for applications in optoelectronic device. *Chemical Engineering Journal*, **2016**, 306, 791-795 <sup>14.7</sup> 12
- 35 Green-emitting Lu<sub>3</sub>Al<sub>5</sub>O<sub>12</sub>:Ce<sup>3+</sup> phosphor as a visible light amplifier for dye-sensitized solar cells. *RSC Advances*, **2015**, 5, 24737-24741 3.7 15
- 34 Facile transfer fabrication of transparent, conductive and flexible In<sub>2</sub>O<sub>3</sub>:Sn (ITO) nanowire arrays electrode via selective wet-etching ZnO sacrificial layer. *Materials Letters*, **2015**, 158, 304-308 3.3 6
- 33 The novel design of a remote phosphor ceramic plate for white light generation in high power LEDs. *Journal of Materials Chemistry C*, **2015**, 3, 6148-6152 7.1 26
- 32 Niobium Doping Effects on TiO<sub>2</sub> Mesoscopic Electron Transport Layer-Based Perovskite Solar Cells. *ChemSusChem*, **2015**, 8, 2392-8 8.3 123
- 31 Ultrarapid and ultrasensitive electrical detection of proteins in a three-dimensional biosensor with high capture efficiency. *Nanoscale*, **2015**, 7, 9844-51 7.7 17
- 30 Direct Low-Temperature Growth of Single-Crystalline Anatase TiO<sub>2</sub> Nanorod Arrays on Transparent Conducting Oxide Substrates for Use in PbS Quantum-Dot Solar Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 10324-30 9.5 12
- 29 Reduced Graphene Oxide/Mesoporous TiO<sub>2</sub> Nanocomposite Based Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 23521-6 9.5 153
- 28 Epitaxial 1D electron transport layers for high-performance perovskite solar cells. *Nanoscale*, **2015**, 7, 15284-90 7.7 44
- 27 Observation of anatase nanograins crystallizing from anodic amorphous TiO<sub>2</sub> nanotubes. *CrystEngComm*, **2015**, 17, 7346-7353 3.3 12
- 26 Screening effect on photovoltaic performance in ferroelectric CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> perovskite thin films. *Journal of Materials Chemistry A*, **2015**, 3, 20352-20358 13 21
- 25 Design of a thermally stable rGO-embedded remote phosphor for applications in white LEDs. *Journal of Materials Chemistry C*, **2015**, 3, 235-238 7.1 11
- 24 Enhanced luminous efficiency of deep red emitting K<sub>2</sub>SiF<sub>6</sub>:Mn<sup>4+</sup> phosphor dependent on KF ratio for warm-white LED. *Materials Letters*, **2015**, 141, 27-30 3.3 44
- 23 Retarding charge recombination in perovskite solar cells using ultrathin MgO-coated TiO<sub>2</sub> nanoparticulate films. *Journal of Materials Chemistry A*, **2015**, 3, 9160-9164 13 142
- 22 Highly efficient and bending durable perovskite solar cells: toward a wearable power source. *Energy and Environmental Science*, **2015**, 8, 916-921 35.4 518
- 21 Low Temperature Synthesis of Rutile TiO<sub>2</sub> Nanocrystals and Their Photovoltaic and Photocatalytic Properties. *Journal of Nanoscience and Nanotechnology*, **2015**, 15, 4516-21 1.3 11
- 20 Facile Synthesis and Enhancement of Luminescence Properties of Red-Emitting Sr<sub>2</sub>Si<sub>5</sub>N<sub>8</sub>:Eu<sup>2+</sup> Phosphor. *Science of Advanced Materials*, **2015**, 7, 1485-1487 2.3 6
- 19 Cerium-doped yttrium aluminum garnet hollow shell phosphors synthesized via the Kirkendall effect. *ACS Applied Materials & Interfaces*, **2014**, 6, 1145-51 9.5 14

18	Study on the enhanced and stable field emission behavior of a novel electrosprayed Al-doped ZnO bilayer film. <i>RSC Advances</i> , <b>2014</b> , 4, 9072	3.7	18
17	Transparent-conducting-oxide nanowire arrays for efficient photoelectrochemical energy conversion. <i>Nanoscale</i> , <b>2014</b> , 6, 8649-55	7.7	5
16	Polyethylenimine-assisted growth of high-aspect-ratio nitrogen-doped ZnO (NZO) nanorod arrays and their effect on performance of dye-sensitized solar cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 10028-43	9.5	21
15	Preparation and luminescence characteristics of single-phase rod-like BaSi <sub>2</sub> O <sub>2</sub> N <sub>2</sub> :Eu <sup>2+</sup> phosphor with new synthetic route for white light generation. <i>Materials Letters</i> , <b>2014</b> , 129, 178-181	3.3	10
14	In <sub>2</sub> O <sub>3</sub> :Sn/TiO <sub>2</sub> /CdS heterojunction nanowire array photoanode in photoelectrochemical cells. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 17473-17480	6.7	13
13	3-D TiO <sub>2</sub> nanoparticle/ITO nanowire nanocomposite antenna for efficient charge collection in solid state dye-sensitized solar cells. <i>Nanoscale</i> , <b>2014</b> , 6, 6127-32	7.7	29
12	A Simple Method To Control Morphology of Hydroxyapatite Nano- and Microcrystals by Altering Phase Transition Route. <i>Crystal Growth and Design</i> , <b>2013</b> , 13, 3414-3418	3.5	36
11	A simple self-assembly route to single crystalline SnO <sub>2</sub> nanorod growth by oriented attachment for dye sensitized solar cells. <i>Nanoscale</i> , <b>2013</b> , 5, 1188-94	7.7	71
10	Functionalization of nanomaterials by non-thermal large area atmospheric pressure plasmas: application to flexible dye-sensitized solar cells. <i>Nanoscale</i> , <b>2013</b> , 5, 7825-30	7.7	27
9	TiO <sub>2</sub> nanocrystals shell layer on highly conducting indium tin oxide nanowire for photovoltaic devices. <i>Nanoscale</i> , <b>2013</b> , 5, 3520-6	7.7	11
8	Mesoporous TiO <sub>2</sub> nanowires as bi-functional materials for dye-sensitized solar cells. <i>Electrochimica Acta</i> , <b>2012</b> , 74, 83-86	6.7	11
7	Crystallographically preferred oriented TiO <sub>2</sub> nanotube arrays for efficient photovoltaic energy conversion. <i>Energy and Environmental Science</i> , <b>2012</b> , 5, 7989	35.4	82
6	Nanowire-Based Three-Dimensional Transparent Conducting Oxide Electrodes for Extremely Fast Charge Collection. <i>Advanced Energy Materials</i> , <b>2011</b> , 1, 829-835	21.8	48
5	Photophysical and Photocatalytic Properties of Ag <sub>2</sub> M <sub>2</sub> O <sub>7</sub> (M=Mo, W). <i>Journal of the American Ceramic Society</i> , <b>2010</b> , 93, 3867-3872	3.8	37
4	Simple large-scale synthesis of hydroxyapatite nanoparticles: in situ observation of crystallization process. <i>Langmuir</i> , <b>2010</b> , 26, 384-8	4	40
3	Correlation of anatase particle size with photocatalytic properties. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2010</b> , 207, 2288-2291	1.6	14
2	All-in-One Lewis Base for Enhanced Precursor and Device Stability in Highly Efficient Perovskite Solar Cells. <i>ACS Energy Letters</i> , <b>2010</b> , 3425-3434	20.1	9
1	Defect Healing in FAPb(I 1- x Br x ) 3 Perovskites: Multifunctional Fluorinated Sulfonate Surfactant Anchoring Enables >21% Modules with Improved Operation Stability. <i>Advanced Energy Materials</i> , <b>2010</b> , 2200632	21.8	5

