

Sanghan Lee

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Controlled Band Offsets in Ultrathin Hematite for Enhancing the Photoelectrochemical Water Splitting Performance of Heterostructured Photoanodes. ACS Applied Materials & Interfaces, 2022, 14, 7788-7795.	8.0	35
2	Performance enhancement of graphene/Ge near-infrared photodetector by modulating the doping level of graphene. APL Photonics, 2022, 7, .	5.7	11
3	Conducting interfaces between LaAlO ₃ and thick homoepitaxial SrTiO ₃ films for transferable templates. Applied Surface Science, 2022, 582, 152480.	6.1	2
4	Mixed-state Hall scaling behavior and vortex phase diagram in $\text{FeSe}_{1-x}\text{Te}_x$ thin films. Physical Review B, 2022, 105, .	10.7	0.7
5	Bi-Based Metal-Organic Framework Decorated BiVO ₄ Photoelectrode for Photoelectrochemical Water Splitting. Ceramist, 2022, 25, 4-14.	0.1	0
6	A long-term stable organic semiconductor photocathode-based photoelectrochemical module system for hydrogen production. Journal of Materials Chemistry A, 2022, 10, 13247-13253.	10.3	5
7	Nonvolatile Control of Metal-Insulator Transition in VO ₂ by Ferroelectric Gating. Advanced Materials, 2022, 34, .	21.0	12
8	Surface-Modified Co-doped ZnO Photoanode for Photoelectrochemical Oxidation of Glycerol. Catalysis Today, 2021, 359, 43-49.	4.4	47
9	Efficient and Stable Perovskite-Based Photocathode for Photoelectrochemical Hydrogen Production. Advanced Functional Materials, 2021, 31, 2008277.	14.9	36
10	An organometal halide perovskite photocathode integrated with a MoS ₂ catalyst for efficient and stable photoelectrochemical water splitting. Journal of Materials Chemistry A, 2021, 9, 22291-22300.	10.3	14
11	Perovskite-Based Photocathodes: Efficient and Stable Perovskite-Based Photocathode for Photoelectrochemical Hydrogen Production (Adv. Funct. Mater. 17/2021). Advanced Functional Materials, 2021, 31, 2170119.	14.9	2
12	Bendable BiVO ₄ -Based Photoanodes on a Metal Substrate Realized through Template Engineering for Photoelectrochemical Water Splitting. ACS Applied Materials & Interfaces, 2021, 13, 16478-16484.	8.0	3
13	Co-catalytic effects of Bi-based metal-organic framework on BiVO ₄ photoanodes for photoelectrochemical water oxidation. Applied Surface Science, 2021, 563, 150357.	6.1	12
14	Experimental realization of strain-induced room-temperature ferroelectricity in SrMnO ₃ films via selective oxygen annealing. NPG Asia Materials, 2021, 13, .	7.9	6
15	Growth of Transition Metal Dichalcogenide Heterojunctions with Metal Oxides for Metal-Insulator-Semiconductor Capacitors. ACS Applied Nano Materials, 2021, 4, 12017-12023.	5.0	6
16	Template Engineering of Metal-to-Insulator Transitions in Epitaxial Bilayer Nickelate Thin Films. ACS Applied Materials & Interfaces, 2021, 13, 54466-54475.	8.0	5
17	Enhanced spin-orbit torque in Ni ₈₁ Fe ₁₉ /Pt bilayer with NdNiO ₃ contact. Applied Physics Letters, 2021, 119, .	3.3	2
18	Magnetotransport Properties in Epitaxial Fe _{1.1} Te _{0.7} Se _{0.3} Films. Journal of Superconductivity and Novel Magnetism, 2020, 33, 165-169.	1.8	0

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19	Overestimation of Photoelectrochemical Hydrogen Evolution Reactivity Induced by Noble Metal Impurities Dissolved from Counter/Reference Electrodes. <i>ACS Catalysis</i> , 2020, 10, 3381-3389.	11.2	20
20	Template Engineering of CuBi_2O_4 Single-Crystal Thin Film Photocathodes. <i>Small</i> , 2020, 16, e2002429.	10.0	20
21	Parametric study of pulsed laser deposited (PLD) WSe_2 2D transistors. <i>Microelectronic Engineering</i> , 2020, 230, 111368.	2.4	3
22	Highly ordered lead-free double perovskite halides by design. <i>Journal of Materiomics</i> , 2020, 6, 651-660.	5.7	27
23	Artificially engineered nanostrain in $\text{FeSe}_x\text{Te}_{1-x}$ superconductor thin films for supercurrent enhancement. <i>NPG Asia Materials</i> , 2020, 12, .	7.9	15
24	Large enhancement of the photocurrent density in N-doped Cu_3N films through bandgap reduction. <i>Journal of the Korean Ceramic Society</i> , 2020, 57, 345-351.	2.3	10
25	Effect of Ceramic-Target Crystallinity on Metal-to-Insulator Transition of Epitaxial Rare-Earth Nickelate Films Grown by Pulsed Laser Deposition. <i>ACS Applied Electronic Materials</i> , 2019, 1, 1952-1958.	4.3	6
26	Transition Metal Dichalcogenides: Direct In Situ Growth of Centimeter-Scale Multi-Heterojunction $\text{MoS}_2/\text{WS}_2/\text{WSe}_2$ Thin-Film Catalyst for Photo-Electrochemical Hydrogen Evolution (<i>Adv. Sci.</i> 13/2019). <i>Advanced Science</i> , 2019, 6, 1970079.	11.2	3
27	In Situ Growth of Nanostructured BiVO_4 Bi_2O_3 Mixed-Phase via Nonequilibrium Deposition Involving Metal Exsolution for Enhanced Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 44069-44076.	8.0	18
28	Long-term stabilized high-density $\text{CuBi}_2\text{O}_4/\text{NiO}$ heterostructure thin film photocathode grown by pulsed laser deposition. <i>Chemical Communications</i> , 2019, 55, 12447-12450.	4.1	33
29	Piezoelectricity in $\text{La}_{0.85}\text{Ce}_{0.15}\text{MnO}_3$ layer of $\text{BiFeO}_3/\text{La}_{0.85}\text{Ce}_{0.15}\text{MnO}_3$ based ferroelectric/semiconductor oxide superlattice. <i>Current Applied Physics</i> , 2019, 19, 950-953.	2.4	2
30	Direct In Situ Growth of Centimeter-Scale Multi-Heterojunction $\text{MoS}_2/\text{WS}_2/\text{WSe}_2$ Thin-Film Catalyst for Photo-Electrochemical Hydrogen Evolution. <i>Advanced Science</i> , 2019, 6, 1900301.	11.2	60
31	All-Solution-Processed $\text{WO}_3/\text{BiVO}_4$ Core-Shell Nanorod Arrays for Highly Stable Photoanodes. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 20004-20012.	8.0	57
32	Enhancement of Ferroelectric Properties of Superlattice-Based Epitaxial BiFeO_3 Thin Films via Substitutional Doping Effect. <i>Journal of Physical Chemistry C</i> , 2019, 123, 11564-11571.	3.1	5
33	Daylight-Induced Metal-Insulator Transition in Ag-Decorated Vanadium Dioxide Nanorod Arrays. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 11568-11578.	8.0	20
34	Reversible magnetoelectric switching in multiferroic three-dimensional nanocup heterostructure films. <i>NPG Asia Materials</i> , 2019, 11, .	7.9	8
35	Enhanced ferroelectricity in perovskite oxysulfides. <i>Physical Review Materials</i> , 2019, 3, .	2.4	4
36	Oxygen stoichiometry controlled sharp insulator-metal transition in highly oriented VO_2/TiO_2 thin films. <i>Current Applied Physics</i> , 2018, 18, 652-657.	2.4	19

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37	Plasmonic Silver Nanoparticle-Impregnated Nanocomposite BiVO ₄ Photoanode for Plasmon-Enhanced Photocatalytic Water Splitting. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7088-7093.	3.1	42
38	Domain-engineered BiFeO ₃ thin-film photoanodes for highly enhanced ferroelectric solar water splitting. <i>Nano Research</i> , 2018, 11, 642-655.	10.4	88
39	Tungsten Diselenide: Growth of Centimeter-Scale Monolayer and Few-Layer WSe ₂ Thin Films on SiO ₂ /Si Substrate via Pulsed Laser Deposition (<i>Adv. Mater. Interfaces</i> 20/2018). <i>Advanced Materials Interfaces</i> , 2018, 5, 1870098.	3.7	1
40	Non-stoichiometry-induced metal-to-insulator transition in nickelate thin films grown by pulsed laser deposition. <i>Current Applied Physics</i> , 2018, 18, 1577-1582.	2.4	4
41	Tailoring Crystallographic Orientations to Substantially Enhance Charge Separation Efficiency in Anisotropic BiVO ₄ Photoanodes. <i>ACS Catalysis</i> , 2018, 8, 5952-5962.	11.2	85
42	Plasmonic gold nanoparticle-decorated BiVO ₄ /ZnO nanowire heterostructure photoanodes for efficient water oxidation. <i>Catalysis Science and Technology</i> , 2018, 8, 3759-3766.	4.1	34
43	Solution-processed ZnO/SnO ₂ bilayer ultraviolet phototransistor with high responsivity and fast photoresponse. <i>Journal of Materials Chemistry C</i> , 2018, 6, 6014-6022.	5.5	28
44	Nonequilibrium Deposition in Epitaxial BiVO ₄ Thin Film Photoanodes for Improving Solar Water Oxidation Performance. <i>Chemistry of Materials</i> , 2018, 30, 5673-5681.	6.7	20
45	Efficient Light Absorption by GaN Truncated Nanocones for High Performance Water Splitting Applications. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 28672-28678.	8.0	57
46	Photoelectrochemical Device Designs toward Practical Solar Water Splitting: A Review on the Recent Progress of BiVO ₄ and BiFeO ₃ Photoanodes. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1388.	2.5	32
47	Vortex pinning in artificially layered Ba(Fe,Co) ₂ As ₂ film. <i>Cryogenics</i> , 2018, 92, 1-4.	1.7	5
48	Growth of Centimeter-Scale Monolayer and Few-Layer WSe ₂ Thin Films on SiO ₂ /Si Substrate via Pulsed Laser Deposition. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800524.	3.7	23
49	Enhanced Photocatalytic Performance Depending on Morphology of Bismuth Vanadate Thin Film Synthesized by Pulsed Laser Deposition. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 505-512.	8.0	50
50	Structural, electro-magnetic, and optical properties of Ba(Fe,Ni) ₂ As ₂ single-crystal thin film. <i>Superconductor Science and Technology</i> , 2017, 30, 035001.	3.5	17
51	Thermally activated flux flow in superconducting epitaxial FeSe _{0.6} Te _{0.4} thin film. <i>Results in Physics</i> , 2017, 7, 16-20.	4.1	26
52	Localized GHz frequency electrodynamic behavior of an optimally-doped Ba(Fe _{1-x} Mn _x) ₂ As ₂ film. <i>Applied Physics Letters</i> , 2017, 110, 162401.	1.2	4
53	Dominance of Plasmonic Resonant Energy Transfer over Direct Electron Transfer in Substantially Enhanced Water Oxidation Activity of BiVO ₄ by Shape-Controlled Au Nanoparticles. <i>Small</i> , 2017, 13, 1701644.	10.0	52
54	Origin of the emergence of higher T _c than bulk in iron chalcogenide thin films. <i>Scientific Reports</i> , 2017, 7, 9994.	3.3	24

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55	High critical current density over 1 MA cm^{-2} at 13 T in BaZrO_3 incorporated $\text{Ba}(\text{Fe},\text{Co})_2\text{As}_2$ thin film. Superconductor Science and Technology, 2017, 30, 085006.	3.5	20
56	Template-engineered epitaxial BiVO_4 photoanodes for efficient solar water splitting. Journal of Materials Chemistry A, 2017, 5, 18831-18838.	10.3	42
57	Effect of proton irradiation on the fluctuation-induced magnetoconductivity of $\text{FeSe}_{1-x}\text{Te}_x$ thin films. New Journal of Physics, 2017, 19, 093004.	2.9	10
58	Enhanced Intrinsic Catalytic Activity of LaMnO_2 by Electrochemical Tuning and Oxygen Vacancy Generation. Angewandte Chemie - International Edition, 2016, 55, 8599-8604.	13.8	107
59	Enhanced Intrinsic Catalytic Activity of LaMnO_2 by Electrochemical Tuning and Oxygen Vacancy Generation. Angewandte Chemie, 2016, 128, 8741-8746.	2.0	18
60	Electro-mechanical response of top-gated $\text{LaAlO}_3/\text{SrTiO}_3$. Journal of Applied Physics, 2016, 119, .	2.5	11
61	Conformally coated BiVO_4 nanodots on porosity-controlled WO_3 nanorods as highly efficient type II heterojunction photoanodes for water oxidation. Nano Energy, 2016, 28, 250-260.	16.0	158
62	Large enhancement of the photovoltaic effect in ferroelectric complex oxides through bandgap reduction. Scientific Reports, 2016, 6, 28313.	3.3	34
63	Atomic and electronic structures of superconducting BaFe_2As_2 . Physical Review B, 2015, 91, .	12.6	259
64	Emergence of room-temperature ferroelectricity at reduced dimensions. Science, 2015, 349, 1314-1317.	12.6	259
65	Electrodynamics of superconducting pnictide superlattices. Applied Physics Letters, 2014, 104, 222601.	3.3	4
66	Development of very high J_c in $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ thin films grown on CaF_2 . Scientific Reports, 2014, 4, 7305.	3.3	45
67	Surface stability of epitaxial $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ thin films on (111)-oriented SrTiO_3 . Journal of Applied Physics, 2013, 113, .	2.5	31
68	Transmittance and reflectance measurements at terahertz frequencies on a superconducting $\text{BaFe}_{1.84}\text{Co}_{0.16}\text{As}_2$ ultrathin film: an analysis of the optical gaps in the Co-doped BaFe_2As_2 pnictide. European Physical Journal B, 2013, 86, 1.	1.5	8
69	Retention of resistance states in ferroelectric tunnel memristors. Applied Physics Letters, 2013, 103, .	3.3	26
70	Epitaxial Al_2O_3 capacitors for low microwave loss superconducting quantum circuits. APL Materials, 2013, 1, .	5.1	9
71	Artificially engineered superlattices of pnictide superconductors. Nature Materials, 2013, 12, 392-396. Artificial and self-assembled vortex-pinning centers in superconducting $\text{Ba}(\text{Fe})_2\text{As}_2$. Physical Review Letters, 2013, 111, 107001.	27.5	70
72	Superconducting $\text{Ba}(\text{Fe},\text{Co})_2\text{As}_2$ thin films grown on CaF_2 . Scientific Reports, 2014, 4, 7305.	3.2	43

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73	Switchable Induced Polarization in LaAlO ₃ /SrTiO ₃ Heterostructures. Nano Letters, 2012, 12, 1765-1771.	9.1	167
74	Dependence of Epitaxial $\text{Ba}_{1-x}\text{Fe}_x\text{Co}_x\text{As}_2$ Thin Films Properties on SrTiO_3 Template Thickness. IEEE Transactions on Applied Superconductivity, 2011, 21, 2882-2886.	1.7	8
75	Metallic and Insulating Oxide Interfaces Controlled by Electronic Correlations. Science, 2011, 331, 886-889.	12.6	212
76	The Nature of Polarization Fatigue in BiFeO ₃ . Advanced Materials, 2011, 23, 1621-1625.	21.0	127
77	Superfluid density measurements of $\text{Ba}_{1-x}\text{Fe}_x\text{Co}_x\text{As}_2$ thin films. Applied Physics Letters, 2011, 98, .	3.2	27
78	Self-assembled oxide nanopillars in epitaxial BaFe ₂ As ₂ thin films for vortex pinning. Applied Physics Letters, 2011, 98, .	3.3	42
79	Conductance asymmetry in point-contacts on epitaxial thin films of Ba(Fe _{0.92} Co _{0.08}) ₂ As ₂ . Applied Physics Letters, 2010, 97, .	3.3	8
80	Multi-gap superconductivity in a BaFe _{1.84} Co _{0.16} As ₂ film from optical measurements at terahertz frequencies. European Physical Journal B, 2010, 77, 25-30.	1.5	26
81	New Fe-based superconductors: properties relevant for applications. Superconductor Science and Technology, 2010, 23, 034003.	3.5	253
82	Template engineering of Co-doped BaFe ₂ As ₂ single-crystal thin films. Nature Materials, 2010, 9, 397-402.	27.5	185
83	Strong vortex pinning in Co-doped BaFe ₂ As ₂ single crystal thin films. Applied Physics Letters, 2010, 96, .	3.3	66
84	Pair-breaking effects and coherence peak in the terahertz conductivity of superconducting BaFe _{2-x} Co _{2x} As ₂ thin films. Physical Review B, 2010, 82, .	3.2	32
85	The role of reflective p-contacts in the enhancement of light extraction in nanotextured vertical InGaN light-emitting diodes. Nanotechnology, 2010, 21, 025203.	2.6	21
86	Phase-Incoherent Superconducting Pairs in the Normal State of $\text{Ba}_{1-x}\text{Fe}_x\text{Co}_x\text{As}_2$. Physical Review Letters, 2010, 105, 167003.	27.8	20
87	Weak-link behavior of grain boundaries in superconducting Ba(Fe _{1-x} Co _x) ₂ As ₂ bicrystals. Applied Physics Letters, 2009, 95, .	3.3	163
88	Interfacial Band Bendings in Al Ohmic Contacts to Laser-Irradiated Ga-Face and N-Face n-GaN. Electrochemical and Solid-State Letters, 2009, 12, H405.	2.2	10
89	Growth of MgB_2 Thin Films <i>In Situ</i> by RF Magnetron Sputtering With a Pocket Heater. IEEE Transactions on Applied Superconductivity, 2009, 19, 2811-2814.	1.7	2
90	Influence of symmetry mismatch on heteroepitaxial growth of perovskite thin films. Applied Physics Letters, 2008, 93, .	3.3	39

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91	Highly reflective MgAl alloy/Ag ⁺ •Ru Ohmic contact with low contact resistivity on p-type GaN. Applied Physics Letters, 2007, 91, 222115.	3.3	5