Sanghan Lee

List of Publications by Year
in descending order

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91 papers	3,439 citations	147801 31 h-index	144013 57 g-index
92 all docs	92 docs citations	92 times ranked	4797 citing authors

#	Article	IF	Citations
1	Emergence of room-temperature ferroelectricity at reduced dimensions. Science, 2015, 349, 1314-1317.	12.6	259
2	New Fe-based superconductors: properties relevant for applications. Superconductor Science and Technology, 2010, 23, 034003.	3.5	253
3	Metallic and Insulating Oxide Interfaces Controlled by Electronic Correlations. Science, 2011, 331, 886-889.	12.6	212
4	Template engineering of Co-doped BaFe2As2 single-crystal thin films. Nature Materials, 2010, 9, 397-402.	27.5	185
5	Switchable Induced Polarization in LaAlO₃/SrTiO₃ Heterostructures. Nano Letters, 2012, 12, 1765-1771.	9.1	167
6	Weak-link behavior of grain boundaries in superconducting Ba(Fe1â^'xCox)2As2 bicrystals. Applied Physics Letters, 2009, 95, .	3.3	163
7	Conformally coated BiVO4 nanodots on porosity-controlled WO3 nanorods as highly efficient type II heterojunction photoanodes for water oxidation. Nano Energy, 2016, 28, 250-260.	16.0	158
8	The Nature of Polarization Fatigue in BiFeO₃. Advanced Materials, 2011, 23, 1621-1625.	21.0	127
9	Enhanced Intrinsic Catalytic Activity of Î»â€MnO₂ by Electrochemical Tuning and Oxygen Vacancy Generation. Angewandte Chemie - International Edition, 2016, 55, 8599-8604.	13.8	107
10	Domain-engineered BiFeO3 thin-film photoanodes for highly enhanced ferroelectric solar water splitting. Nano Research, 2018, 11, 642-655.	10.4	88
11	Tailoring Crystallographic Orientations to Substantially Enhance Charge Separation Efficiency in Anisotropic BiVO₄ Photoanodes. ACS Catalysis, 2018, 8, 5952-5962.	11.2	85
12	Artificially engineered superlattices of pnictide superconductors. Nature Materials, 2013, 12, 392-396.	27.5	70
13	Strong vortex pinning in Co-doped BaFe2As2 single crystal thin films. Applied Physics Letters, 2010, 96, .	3.3	66
14	Direct In Situ Growth of Centimeterâ€Scale Multiâ€Heterojunction MoS₂/WS₂/WSe₂ Thinâ€Film Catalyst for Photoâ€Electrochemical Hydrogen Evolution. Advanced Science, 2019, 6, 1900301.	11.2	60
15	Efficient Light Absorption by GaN Truncated Nanocones for High Performance Water Splitting Applications. ACS Applied Materials & Interfaces, 2018, 10, 28672-28678.	8.0	57
16	All-Solution-Processed WO₃/BiVO₄ Coreâ€“Shell Nanorod Arrays for Highly Stable Photoanodes. ACS Applied Materials & Interfaces, 2019, 11, 20004-20012.	8.0	57
17	Dominance of Plasmonic Resonant Energy Transfer over Direct Electron Transfer in Substantially Enhanced Water Oxidation Activity of BiVO₄ by Shapeâ€Controlled Au Nanoparticles. Small, 2017, 13, 1701644.	10.0	52
18	Enhanced Photocatalytic Performance Depending on Morphology of Bismuth Vanadate Thin Film Synthesized by Pulsed Laser Deposition. ACS Applied Materials & Interfaces, 2017, 9, 505-512.	8.0	50

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19	Surface-Modified Co-doped ZnO Photoanode for Photoelectrochemical Oxidation of Glycerol. Catalysis Today, 2021, 359, 43-49.	4.4	47
20	Development of very high Jc in Ba(Fe1-xCox)2As2 thin films grown on CaF2. Scientific Reports, 2014, 4, 7305.	3.3	45
21	Artificial and self-assembled vortex-pinning centers in superconducting Ba(Fe<mml:math) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	3.2	43
22	xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /> <mml: Self-assembled oxide nanopillars in epitaxial BaFe2As2 thin films for vortex pinning. Applied Physics Letters, 2011, 98, .	3.3	42
23	Template-engineered epitaxial BiVO₄ photoanodes for efficient solar water splitting. Journal of Materials Chemistry A, 2017, 5, 18831-18838.	10.3	42
24	Plasmonic Silver Nanoparticle-Impregnated Nanocomposite BiVO₄ Photoanode for Plasmon-Enhanced Photocatalytic Water Splitting. Journal of Physical Chemistry C, 2018, 122, 7088-7093.	3.1	42
25	Influence of symmetry mismatch on heteroepitaxial growth of perovskite thin films. Applied Physics Letters, 2008, 93, .	3.3	39
26	Efficient and Stable Perovskiteâ€Based Photocathode for Photoelectrochemical Hydrogen Production. Advanced Functional Materials, 2021, 31, 2008277.	14.9	36
27	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
28	Large enhancement of the photovoltaic effect in ferroelectric complex oxides through bandgap reduction. Scientific Reports, 2016, 6, 28313.	3.3	34
29	Plasmonic gold nanoparticle-decorated BiVO₄/ZnO nanowire heterostructure photoanodes for efficient water oxidation. Catalysis Science and Technology, 2018, 8, 3759-3766.	4.1	34
30	Long-term stabilized high-density CuBi₂O₄/NiO heterostructure thin film photocathode grown by pulsed laser deposition. Chemical Communications, 2019, 55, 12447-12450.	4.1	33
31	Pair-breaking effects and coherence peak in the terahertz conductivity of superconductingBaFe2â^'2xCo2xAs2thin films. Physical Review B, 2010, 82, .	3.2	32
32	Photoelectrochemical Device Designs toward Practical Solar Water Splitting: A Review on the Recent Progress of BiVO4 and BiFeO3 Photoanodes. Applied Sciences (Switzerland), 2018, 8, 1388.	2.5	32
33	Surface stability of epitaxial La0.7Sr0.3MnO3 thin films on (111)-oriented SrTiO3. Journal of Applied Physics, 2013, 113, .	2.5	31
34	Solution-processed ZnO/SnO₂ bilayer ultraviolet phototransistor with high responsivity and fast photoresponse. Journal of Materials Chemistry C, 2018, 6, 6014-6022.	5.5	28
35	Superfluid density measurements of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Ba</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:msub><mml:mi) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 107 Td (mathvariant="normal">Co	3.2	27
36	Revie Highly ordered lead-free double perovskite halides by design. Journal of Materiomics, 2020, 6, 651-660.	5.7	27

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37	Multi-gap superconductivity in a BaFe1.84Co0.16As2 film from optical measurements at terahertz frequencies. European Physical Journal B, 2010, 77, 25-30.	1.5	26
38	Retention of resistance states in ferroelectric tunnel memristors. Applied Physics Letters, 2013, 103, .	3.3	26
39	Thermally activated flux flow in superconducting epitaxial FeSe0.6Te0.4 thin film. Results in Physics, 2017, 7, 16-20.	4.1	26
40	Origin of the emergence of higher T c than bulk in iron chalcogenide thin films. Scientific Reports, 2017, 7, 9994.	3.3	24
41	Growth of Centimeterâ€Scale Monolayer and Fewâ€Layer WSe₂ Thin Films on SiO₂/Si Substrate via Pulsed Laser Deposition. Advanced Materials Interfaces, 2018, 5, 1800524.	3.7	23
42	Phase-Incoherent Superconducting Pairs in the Normal State of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ba</mml:mi><mml:mo stretchy="false">(</mml:mo><mml:msub><mml:mi>Fe</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo>	7.8	22
	Physical Review Letters, 2010, 105, 167003.		
43	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
44	High critical current density over 1 MA cm^{â^’2}at 13 T in BaZrO₃incorporated Ba(Fe,Co)₂As₂thin film. Superconductor Science and Technology, 2017, 30, 085006.	3.5	20
45	Nonequilibrium Deposition in Epitaxial BiVO₄ Thin Film Photoanodes for Improving Solar Water Oxidation Performance. Chemistry of Materials, 2018, 30, 5673-5681.	6.7	20
46	Daylight-Induced Metalâ€“Insulator Transition in Ag-Decorated Vanadium Dioxide Nanorod Arrays. ACS Applied Materials & Interfaces, 2019, 11, 11568-11578.	8.0	20
47	Overestimation of Photoelectrochemical Hydrogen Evolution Reactivity Induced by Noble Metal Impurities Dissolved from Counter/Reference Electrodes. ACS Catalysis, 2020, 10, 3381-3389.	11.2	20
48	Template Engineering of CuBi₂O₄ Singleâ€Crystal Thin Film Photocathodes. Small, 2020, 16, e2002429.	10.0	20
49	Oxygen stoichiometry controlled sharp insulator-metal transition in highly oriented VO2/TiO2 thin films. Current Applied Physics, 2018, 18, 652-657.	2.4	19
50	Enhanced Intrinsic Catalytic Activity of Î»â€MnO₂ by Electrochemical Tuning and Oxygen Vacancy Generation. Angewandte Chemie, 2016, 128, 8741-8746.	2.0	18
51	In Situ Growth of Nanostructured BiVO₄â€“Bi₂O₃ Mixed-Phase via Nonequilibrium Deposition Involving Metal Exsolution for Enhanced Photoelectrochemical Water Splitting. ACS Applied Materials & Interfaces, 2019, 11, 44069-44076.	8.0	18
52	Structural, electro-magnetic, and optical properties of Ba(Fe,Ni)₂As₂single-crystal thin film. Superconductor Science and Technology, 2017, 30, 035001.	3.5	17
53	Artificially engineered nanostrain in FeSexTe1-x superconductor thin films for supercurrent enhancement. NPG Asia Materials, 2020, 12, .	7.9	15
54	An organometal halide perovskite photocathode integrated with a MoS₂ catalyst for efficient and stable photoelectrochemical water splitting. Journal of Materials Chemistry A, 2021, 9, 22291-22300.	10.3	14

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55	Co-catalytic effects of Bi-based metal-organic framework on BiVO4 photoanodes for photoelectrochemical water oxidation. Applied Surface Science, 2021, 563, 150357.	6.1	12
56	Nonvolatile Control of Metalâ€“Insulator Transition in VO₂ by Ferroelectric Gating. Advanced Materials, 2022, 34, .	21.0	12
57	Electro-mechanical response of top-gated LaAlO3/SrTiO3. Journal of Applied Physics, 2016, 119, .	2.5	11
58	Performance enhancement of graphene/Ge near-infrared photodetector by modulating the doping level of graphene. APL Photonics, 2022, 7, .	5.7	11
59	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
60	Effect of proton irradiation on the fluctuation-induced magnetoconductivity of FeSe_{1â^'x}Te_xthin films. New Journal of Physics, 2017, 19, 093004.	2.9	10
61	Large enhancement of the photocurrent density in N-doped Cu3N films through bandgap reduction. Journal of the Korean Ceramic Society, 2020, 57, 345-351.	2.3	10
62	Epitaxial Al2O3 capacitors for low microwave loss superconducting quantum circuits. APL Materials, 2013, 1, .	5.1	9
63	Conductance asymmetry in point-contacts on epitaxial thin films of Ba(Fe0.92Co0.08)2As2. Applied Physics Letters, 2010, 97, .	3.3	8
64	Dependence of Epitaxial ${m Ba}{({m Fe}_{1-{m x}}{m Co}_{m x})}_{2}{m As}_{2}$ Thin Films Properties on ${m SrTiO}_{3}$ Template Thickness. IEEE Transactions on Applied Superconductivity, 2011, 21, 2882-2886.	1.7	8
65	Transmittance and reflectance measurements at terahertz frequencies on a superconducting BaFe1.84Co0.16As2 ultrathin film: an analysis of the optical gaps in the Co-doped BaFe2As2 pnictide. European Physical Journal B, 2013, 86, 1.	1.5	8
66	Atomic and electronic structures of superconducting<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>BaFe</mml:mi><mml:mn>2</mml:mn> Physical Review B, 2015, 91, .	3.2	8
67	Reversible magnetoelectric switching in multiferroic three-dimensional nanocup heterostructure films. NPG Asia Materials, 2019, 11, .	7.9	8
68	Effect of Ceramic-Target Crystallinity on Metal-to-Insulator Transition of Epitaxial Rare-Earth Nickelate Films Grown by Pulsed Laser Deposition. ACS Applied Electronic Materials, 2019, 1, 1952-1958.	4.3	6
69	Experimental realization of strain-induced room-temperature ferroelectricity in SrMnO3 films via selective oxygen annealing. NPG Asia Materials, 2021, 13, .	7.9	6
70	Growth of Transition Metal Dichalcogenide Heterojunctions with Metal Oxides for Metalâ€“Insulatorâ€“Semiconductor Capacitors. ACS Applied Nano Materials, 2021, 4, 12017-12023.	5.0	6
71	Highly reflective MgAl alloy/Agâ^•Ru Ohmic contact with low contact resistivity on p-type GaN. Applied Physics Letters, 2007, 91, 222115.	3.3	5
72	Vortex pinning in artificially layered Ba(Fe,Co)2As2 film. Cryogenics, 2018, 92, 1-4.	1.7	5

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73	Enhancement of Ferroelectric Properties of Superlattice-Based Epitaxial BiFeO₃ Thin Films via Substitutional Doping Effect. Journal of Physical Chemistry C, 2019, 123, 11564-11571.	3.1	5
74	Template Engineering of Metal-to-Insulator Transitions in Epitaxial Bilayer Nickelate Thin Films. ACS Applied Materials & Interfaces, 2021, 13, 54466-54475.	8.0	5
75	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
76	Electrodynamics of superconducting pnictide superlattices. Applied Physics Letters, 2014, 104, 222601.	3.3	4
77	Localized GHz frequency electrodynamic behavior of an optimally-doped Ba(Fe<mml:math) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5	1.2	4
78	Non-stoichiometry-induced metal-to-insulator transition in nickelate thin films grown by pulsed laser deposition. Current Applied Physics, 2018, 18, 1577-1582.	2.4	4
79	Enhanced ferroelectricity in perovskite oxysulfides. Physical Review Materials, 2019, 3, .	2.4	4
80	Transition Metal Dichalcogenides: Direct In Situ Growth of Centimeter-Scale Multi-Heterojunction MoS2 /WS2 /WSe2 Thin-Film Catalyst for Photo-Electrochemical Hydrogen Evolution (Adv. Sci. 13/2019). Advanced Science, 2019, 6, 1970079.	11.2	3
81	Parametric study of pulsed laser deposited (PLD) WSe2 2D transistors. Microelectronic Engineering, 2020, 230, 111368.	2.4	3
82	Bendable BiVO₄-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
83	Growth of ${m MgB}_{2}$ Thin Films In Situ by RF Magnetron Sputtering With a Pocket Heater. IEEE Transactions on Applied Superconductivity, 2009, 19, 2811-2814.	1.7	2
84	Piezoelectricity in La0.85Ce0.15MnO3 layer of BiFeO3/ La0.85Ce0.15MnO3 based ferroelectric/semiconductor oxide superlattice. Current Applied Physics, 2019, 19, 950-953.	2.4	2
85	Perovskiteâ€Based Photocathodes: Efficient and Stable Perovskiteâ€Based Photocathode for Photoelectrochemical Hydrogen Production (Adv. Funct. Mater. 17/2021). Advanced Functional Materials, 2021, 31, 2170119.	14.9	2
86	Enhanced spinâ€“orbit torque in Ni81Fe19/Pt bilayer with NdNiO3 contact. Applied Physics Letters, 2021, 119, .	3.3	2
87	Conducting interfaces between LaAlO3 and thick homoepitaxial SrTiO3 films for transferable templates. Applied Surface Science, 2022, 582, 152480.	6.1	2
88	Tungsten Diselenide: Growth of Centimeter-Scale Monolayer and Few-Layer WSe2 Thin Films on SiO2 /Si Substrate via Pulsed Laser Deposition (Adv. Mater. Interfaces 20/2018). Advanced Materials Interfaces, 2018, 5, 1870098.	3.7	1
89	Mixed-state Hall scaling behavior and vortex phase diagram in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>FeSe</mml:mi><mml:mrow><mml:mn>0. thin films. Physical Review B, 2022, 105, .	3.2	1
90	Magnetotransport Properties in Epitaxial Fe1.1Te0.7Se0.3 Films. Journal of Superconductivity and Novel Magnetism, 2020, 33, 165-169.	1.8	0

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91	Bi-Based Metal-Organic Framework Decorated BiVO4 Photoelectrode for Photoelectrochemical Water Splitting. Ceramist, 2022, 25, 4-14.	0.1	0