

# Sangwoo Ryu

## List of Publications by Year in descending order

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55  
papers

2,592  
citations

257101

24  
h-index

182168

51  
g-index

56  
all docs

56  
docs citations

56  
times ranked

4028  
citing authors

#	ARTICLE	IF	CITATIONS
1	Polarized Raman scattering of multiferroic BiFeO <sub>3</sub> epitaxial films with rhombohedral R3c symmetry. Applied Physics Letters, 2006, 88, 042907.	1.5	371
2	Polar metals by geometric design. Nature, 2016, 533, 68-72.	13.7	262
3	Emergence of room-temperature ferroelectricity at reduced dimensions. Science, 2015, 349, 1314-1317.	6.0	259
4	Switchable Induced Polarization in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Heterostructures. Nano Letters, 2012, 12, 1765-1771.	4.5	167
5	Electron pairing without superconductivity. Nature, 2015, 521, 196-199.	13.7	141
6	Electric modulation of magnetization at the BaTiO <sub>3</sub> /La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> interfaces. Applied Physics Letters, 2012, 100, .	1.5	118
7	Room-temperature electronically-controlled ferromagnetism at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. Nature Communications, 2014, 5, 5019.	5.8	115
8	Ferroelectric tunnel junctions with graphene electrodes. Nature Communications, 2014, 5, 5518.	5.8	107
9	Mechanical Tuning of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interface Conductivity. Nano Letters, 2015, 15, 3547-3551.	4.5	75
10	Variations of ferroelectric off-centering distortion and $\alpha'$ mixing in La-doped $\text{BiFeO}_3$ Physical Review B, 2010, 82, .	1.1	74
11	Magnetolectric coupling susceptibility from magnetodielectric effect. Applied Physics Letters, 2008, 93, .	1.5	69
12	Giant conductivity switching of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterointerfaces governed by surface protonation. Nature Communications, 2016, 7, 10681.	5.8	68
13	Improving the open-circuit voltage of Cu <sub>2</sub> ZnSnSe <sub>4</sub> thin film solar cells via interface passivation. Progress in Photovoltaics: Research and Applications, 2017, 25, 308-317.	4.4	66
14	Deterministic and robust room-temperature exchange coupling in monodomain multiferroic BiFeO <sub>3</sub> heterostructures. Nature Communications, 2017, 8, 1583.	5.8	45
15	Electromechanics of Ferroelectric-Like Behavior of LaAlO <sub>3</sub> Thin Films. Advanced Functional Materials, 2015, 25, 6538-6544.	7.8	42
16	Evidence for charge "vortex" duality at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. Nature Communications, 2012, 3, 955.	5.8	41
17	Direct imaging of the electron liquid at oxide interfaces. Nature Nanotechnology, 2018, 13, 198-203.	15.6	40
18	Long-term stabilized high-density CuBi <sub>2</sub> O <sub>4</sub> /NiO heterostructure thin film photocathode grown by pulsed laser deposition. Chemical Communications, 2019, 55, 12447-12450.	2.2	33

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19	Micrometer-Scale Ballistic Transport of Electron Pairs in $\text{LaAlO}_3/\text{SrTiO}_3$ Heterostructures. Physical Review Letters, 2016, 117, 096801.	2.9	32
20	Polarization switching characteristics of $\text{BiFeO}_3$ thin films epitaxially grown on Pt/MgO at a low temperature. Applied Physics Letters, 2009, 95, 242902.	1.5	30
21	Tunable Electron-Electron Interactions in $\text{LaAlO}_3/\text{SrTiO}_3$ Nanostructures. Physical Review X, 2016, 6, .	2.8	29
22	Retention of resistance states in ferroelectric tunnel memristors. Applied Physics Letters, 2013, 103, .	1.5	26
23	Broadband Terahertz Generation and Detection at 10 nm Scale. Nano Letters, 2013, 13, 2884-2888.	4.5	26
24	Oxide-based platform for reconfigurable superconducting nanoelectronics. Nanotechnology, 2013, 24, 375201.	1.3	26
25	Anomalous Transport in Sketched Nanostructures at the $\text{LaAlO}_3/\text{SrTiO}_3$ Interface. Physical Review X, 2013, 3, .	2.8	23
26	Metastable honeycomb $\text{SrTiO}_3/\text{SrIrO}_3$ heterostructures. Applied Physics Letters, 2016, 108, .	1.5	23
27	Electronic and Structural Transitions of $\text{LaAlO}_3/\text{SrTiO}_3$ Heterostructure Driven by Polar Field-Assisted Oxygen Vacancy Formation at the Surface. Advanced Science, 2021, 8, e2002073.	5.6	23
28	Direct imaging of $\text{LaAlO}_3/\text{SrTiO}_3$ nanostructures using piezoresponse force microscopy. APL Materials, 2013, 1, 052110.	2.2	20
29	Template Engineering of $\text{CuBi}_2\text{O}_4$ Single-Crystal Thin Film Photocathodes. Small, 2020, 16, e2002429.	5.2	20
30	Cooperative evolution of polar distortion and nonpolar rotation of oxygen octahedra in oxide heterostructures. Science Advances, 2021, 7, .	4.7	20
31	Charge Transfer to $\text{LaAlO}_3/\text{SrTiO}_3$ Interfaces Controlled by Surface Water Adsorption and Proton Hopping. Advanced Functional Materials, 2016, 26, 5453-5459.	7.8	19
32	Electric field effects in graphene/ $\text{LaAlO}_3/\text{SrTiO}_3$ heterostructures and nanostructures. APL Materials, 2015, 3, 062502.	2.2	17
33	In-plane quasi-single-domain $\text{BaTiO}_3$ via interfacial symmetry engineering. Nature Communications, 2021, 12, 6784.	5.8	16
34	Magnetoelectric coupling at the $\text{EuO}/\text{BaTiO}_3$ interface. Applied Physics Letters, 2013, 102, .	1.5	14
35	Non-local piezoresponse of $\text{LaAlO}_3/\text{SrTiO}_3$ heterostructures. Applied Physics Letters, 2014, 104, 161606.	1.5	14
36	Creation of a two-dimensional electron gas and conductivity switching of nanowires at the $\text{LaAlO}_3/\text{SrTiO}_3$ interface grown by 90° off-axis sputtering. Applied Physics Letters, 2013, 103, .	1.5	13

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37	Formation of high-density $\text{CuBi}_{2}\text{O}_{4}$ thin film photocathodes with polyvinylpyrrolidone-metal interaction. <i>Optics Express</i> , 2019, 27, A171.	1.7	13
38	Gate-tunable superconducting weak link behavior in top-gated $\text{LaAlO}_{3}\text{-SrTiO}_{3}$ . <i>Applied Physics Letters</i> , 2015, 106, .	1.5	11
39	Electro-mechanical response of top-gated $\text{LaAlO}_{3}\text{/SrTiO}_{3}$ . <i>Journal of Applied Physics</i> , 2016, 119, .	1.1	11
40	Direct Identification of Antisite Cation Intermixing and Correlation with Electronic Conduction in $\text{CuBi}_{2}\text{O}_{4}$ for Photocathodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 43720-43727.	4.0	10
41	Large enhancement of the photocurrent density in N-doped $\text{Cu}_{3}\text{N}$ films through bandgap reduction. <i>Journal of the Korean Ceramic Society</i> , 2020, 57, 345-351.	1.1	10
42	Magnetic field tuned superconductor-to-insulator transition at the $\text{LaAlO}_{3}\text{/SrTiO}_{3}$ interface. <i>Physical Review B</i> , 2014, 90, .	1.1	9
43	Photoconductive response of a single Au nanorod coupled to $\text{LaAlO}_{3}\text{/SrTiO}_{3}$ nanowires. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	6
44	Reversible tuning of two-dimensional electron gases in oxide heterostructures by chemical surface modification. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	6
45	Parallel Conductive-AFM Lithography on $\text{LaAlO}_{3}\text{/SrTiO}_{3}$ Interfaces. <i>IEEE Nanotechnology Magazine</i> , 2013, 12, 518-520.	1.1	5
46	Two-dimensional mapping of triaxial strain fields in a multiferroic $\text{BiFeO}_{3}$ thin film using scanning x-ray microdiffraction. <i>Applied Physics Letters</i> , 2007, 90, 102904.	1.5	4
47	High-Pressure Evaporation-Based Nanoporous Black Sn for Enhanced Performance of Lithium-Ion Battery Anodes. <i>Particle and Particle Systems Characterization</i> , 2019, 36, 1800331.	1.2	4
48	Analysis of Local Charges at Hetero-interfaces by Electron Holography – A Comparative Study of Different Techniques. <i>Ultramicroscopy</i> , 2021, 231, 113236.	0.8	4
49	Fast Pulling of n-Type Si Ingots for Enhanced Si Solar Cell Production. <i>Electronic Materials Letters</i> , 2018, 14, 461-466.	1.0	3
50	Interfacial B-site atomic configuration in polar (111) and non-polar (001) $\text{SrIrO}_{3}\text{/SrTiO}_{3}$ heterostructures. <i>APL Materials</i> , 2017, 5, .	2.2	2
51	In-situ probing of coupled atomic restructuring and metallicity of oxide heterointerfaces induced by polar adsorbates. <i>Applied Physics Letters</i> , 2017, 111, 141604.	1.5	2
52	Nucleation and Growth-Controlled Morphology Evolution of Cu Nanostructures During High-Pressure Thermal Evaporation. <i>Journal of Korean Institute of Metals and Materials</i> , 2021, 59, 135-141.	0.4	2
53	Nucleation and Growth-Controlled Facile Fabrication of Gold Nanoporous Structures for Highly Sensitive Surface-Enhanced Raman Spectroscopy Applications. <i>Nanomaterials</i> , 2021, 11, 1463.	1.9	2
54	Reduction of Potential-Induced-Degradation of p-Type PERC Solar Cell Modules by an Ion-Diffusion Barrier Layer Underneath the Front Glass. <i>Processes</i> , 2022, 10, 334.	1.3	2

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55	Electronic reconstruction at the polar (111)-oriented oxide interface. APL Materials, 2022, 10, .	2.2	2