

# Sangwoo Ryu

## List of Publications by Year in descending order

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55  
papers

2,592  
citations

257450

24  
h-index

182427

51  
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56  
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56  
docs citations

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times ranked

4028  
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	2.8	2
2	Electronic reconstruction at the polar (111)-oriented oxide interface. <i>APL Materials</i> , 2022, 10, .	5.1	2
3	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.	1.0	2
4	Analysis of Local Charges at Hetero-interfaces by Electron Holography â€“ A Comparative Study of Different Techniques. <i>Ultramicroscopy</i> , 2021, 231, 113236.	1.9	4
5	Cooperative evolution of polar distortion and nonpolar rotation of oxygen octahedra in oxide heterostructures. <i>Science Advances</i> , 2021, 7, .	10.3	20
6	Electronic and Structural Transitions of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Heterostructure Driven by Polar Fieldâ€Assisted Oxygen Vacancy Formation at the Surface. <i>Advanced Science</i> , 2021, 8, e2002073.	11.2	23
7	Nucleation and Growth-Controlled Facile Fabrication of Gold Nanoporous Structures for Highly Sensitive Surface-Enhanced Raman Spectroscopy Applications. <i>Nanomaterials</i> , 2021, 11, 1463.	4.1	2
8	In-plane quasi-single-domain BaTiO <sub>3</sub> via interfacial symmetry engineering. <i>Nature Communications</i> , 2021, 12, 6784.	12.8	16
9	Template Engineering of CuBi <sub>2</sub> O <sub>4</sub> Singleâ€Crystal Thin Film Photocathodes. <i>Small</i> , 2020, 16, e2002429.	10.0	20
10	Direct Identification of Antisite Cation Intermixing and Correlation with Electronic Conduction in CuBi <sub>2</sub> O <sub>4</sub> for Photocathodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 43720-43727.	8.0	10
11	Large enhancement of the photocurrent density in N-doped Cu <sub>3</sub> N films through bandgap reduction. <i>Journal of the Korean Ceramic Society</i> , 2020, 57, 345-351.	2.3	10
12	Long-term stabilized high-density CuBi <sub>2</sub> O <sub>4</sub> /NiO heterostructure thin film photocathode grown by pulsed laser deposition. <i>Chemical Communications</i> , 2019, 55, 12447-12450.	4.1	33
13	Highâ€Pressure Evaporationâ€Based Nanoporous Black Sn for Enhanced Performance of Lithiumâ€Ion Battery Anodes. <i>Particle and Particle Systems Characterization</i> , 2019, 36, 1800331.	2.3	4
14	Formation of high-density CuBi <sub>2</sub> O <sub>4</sub> thin film photocathodes with polyvinylpyrrolidone-metal interaction. <i>Optics Express</i> , 2019, 27, A171.	3.4	13
15	Direct imaging of the electron liquid at oxide interfaces. <i>Nature Nanotechnology</i> , 2018, 13, 198-203.	31.5	40
16	Fast Pulling of n-Type Si Ingots for Enhanced Si Solar Cell Production. <i>Electronic Materials Letters</i> , 2018, 14, 461-466.	2.2	3
17	Improving the openâ€circuit voltage of Cu <sub>2</sub> ZnSnSe <sub>4</sub> thin film solar cells via interface passivation. <i>Progress in Photovoltaics: Research and Applications</i> , 2017, 25, 308-317.	8.1	66
18	Interfacial B-site atomic configuration in polar (111) and non-polar (001) SrIrO <sub>3</sub> /SrTiO <sub>3</sub> heterostructures. <i>APL Materials</i> , 2017, 5, .	5.1	2

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19	Deterministic and robust room-temperature exchange coupling in monodomain multiferroic BiFeO <sub>3</sub> heterostructures. Nature Communications, 2017, 8, 1583.	12.8	45
20	In-situ probing of coupled atomic restructuring and metallicity of oxide heterointerfaces induced by polar adsorbates. Applied Physics Letters, 2017, 111, 141604.	3.3	2
21	Charge Transfer to LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interfaces Controlled by Surface Water Adsorption and Proton Hopping. Advanced Functional Materials, 2016, 26, 5453-5459.	14.9	19
22	Metastable honeycomb SrTiO <sub>3</sub> /SrIrO <sub>3</sub> heterostructures. Applied Physics Letters, 2016, 108, .	3.3	23
23	Tunable Electron-Electron Interactions in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Nanostructures. Physical Review X, 2016, 6, .	8.9	29
24	Electro-mechanical response of top-gated LaAlO <sub>3</sub> /SrTiO <sub>3</sub> . Journal of Applied Physics, 2016, 119, .	2.5	11
25	Reversible tuning of two-dimensional electron gases in oxide heterostructures by chemical surface modification. Applied Physics Letters, 2016, 109, .	3.3	6
26	Polar metals by geometric design. Nature, 2016, 533, 68-72.	27.8	262
27	Micrometer-Scale Ballistic Transport of Electron Pairs in $\text{LaAlO}_3/\text{SrTiO}_3$ Heterostructures. Physical Review Letters, 2016, 117, 096801.	7.8	32
28	Giant conductivity switching of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterointerfaces governed by surface protonation. Nature Communications, 2016, 7, 10681.	12.8	68
29	Electromechanics of Ferroelectric-Like Behavior of LaAlO <sub>3</sub> Thin Films. Advanced Functional Materials, 2015, 25, 6538-6544.	14.9	42
30	Electric field effects in graphene/LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterostructures and nanostructures. APL Materials, 2015, 3, 062502.	5.1	17
31	Photoconductive response of a single Au nanorod coupled to LaAlO <sub>3</sub> /SrTiO <sub>3</sub> nanowires. Applied Physics Letters, 2015, 106, .	3.3	6
32	Electron pairing without superconductivity. Nature, 2015, 521, 196-199.	27.8	141
33	Mechanical Tuning of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interface Conductivity. Nano Letters, 2015, 15, 3547-3551.	9.1	75
34	Gate-tunable superconducting weak link behavior in top-gated LaAlO <sub>3</sub> -SrTiO <sub>3</sub> . Applied Physics Letters, 2015, 106, .	3.3	11
35	Emergence of room-temperature ferroelectricity at reduced dimensions. Science, 2015, 349, 1314-1317.	12.6	259
36	Non-local piezoresponse of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterostructures. Applied Physics Letters, 2014, 104, 161606.	3.3	14

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37	Magnetic field tuned superconductor-to-insulator transition at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. Physical Review B, 2014, 90, .	3.2	9
38	Ferroelectric tunnel junctions with graphene electrodes. Nature Communications, 2014, 5, 5518.	12.8	107
39	Room-temperature electronically-controlled ferromagnetism at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. Nature Communications, 2014, 5, 5019.	12.8	115
40	Creation of a two-dimensional electron gas and conductivity switching of nanowires at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface grown by 90° off-axis sputtering. Applied Physics Letters, 2013, 103, .	3.3	13
41	Retention of resistance states in ferroelectric tunnel memristors. Applied Physics Letters, 2013, 103, .	3.3	26
42	Parallel Conductive-AFM Lithography on LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interfaces. IEEE Nanotechnology Magazine, 2013, 12, 518-520.	2.0	5
43	Magnetoelectric coupling at the EuO/BaTiO <sub>3</sub> interface. Applied Physics Letters, 2013, 102, .	3.3	14
44	Broadband Terahertz Generation and Detection at 10 nm Scale. Nano Letters, 2013, 13, 2884-2888.	9.1	26
45	Oxide-based platform for reconfigurable superconducting nanoelectronics. Nanotechnology, 2013, 24, 375201.	2.6	26
46	Direct imaging of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> nanostructures using piezoresponse force microscopy. APL Materials, 2013, 1, 052110.	5.1	20
47	Anomalous Transport in Sketched Nanostructures at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interface. Physical Review X, 2013, 3, .	8.9	23
48	Switchable Induced Polarization in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Heterostructures. Nano Letters, 2012, 12, 1765-1771.	9.1	167
49	Evidence for charge "vortex duality at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. Nature Communications, 2012, 3, 955.	12.8	41
50	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, .	3.3	118
51	Variations of ferroelectric off-centering distortion and $d_{33}$ mixing in La-doped $\text{BiFeO}_3$ . Physical Review B, 2010, 82, .	3.2	74
52	Polarization switching characteristics of BiFeO <sub>3</sub> thin films epitaxially grown on Pt/MgO at a low temperature. Applied Physics Letters, 2009, 95, 242902.	3.3	30
53	Magnetoelectric coupling susceptibility from magnetodielectric effect. Applied Physics Letters, 2008, 93, .	3.3	69
54	Two-dimensional mapping of triaxial strain fields in a multiferroic BiFeO <sub>3</sub> thin film using scanning x-ray microdiffraction. Applied Physics Letters, 2007, 90, 102904.	3.3	4

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55	Polarized Raman scattering of multiferroic BiFeO <sub>3</sub> epitaxial films with rhombohedral R3c symmetry. Applied Physics Letters, 2006, 88, 042907.	3.3	371