

# Sangwoo Ryu

## List of Publications by Year in descending order

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Version: 2024-02-01

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  | 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         |
| 2  | Electronic reconstruction at the polar (111)-oriented oxide interface. <i>APL Materials</i> , 2022, 10, .   | 2.2  | 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.                          | 0.4  | 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.  | 0.8  | 4         |
| 5  | Cooperative evolution of polar distortion and nonpolar rotation of oxygen octahedra in oxide heterostructures. <i>Science Advances</i> , 2021, 7, .   | 4.7  | 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.        | 5.6  | 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.                               | 1.9  | 2         |
| 8  | In-plane quasi-single-domain BaTiO <sub>3</sub> via interfacial symmetry engineering. <i>Nature Communications</i> , 2021, 12, 6784.  | 5.8  | 16        |
| 9  | Template Engineering of CuBi <sub>2</sub> O <sub>4</sub> Singleâ€”Crystal Thin Film Photocathodes. <i>Small</i> , 2020, 16, e2002429.   | 5.2  | 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. | 4.0  | 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.   | 1.1  | 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.                      | 2.2  | 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.                                  | 1.2  | 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.   | 1.7  | 13        |
| 15 | Direct imaging of the electron liquid at oxide interfaces. <i>Nature Nanotechnology</i> , 2018, 13, 198-203.  | 15.6 | 40        |
| 16 | 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         |
| 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.                 | 4.4  | 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, .   | 2.2  | 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.                   | 5.8  | 45        |
| 20 | In-situ probing of coupled atomic restructuring and metallicity of oxide heterointerfaces induced by polar adsorbates. Applied Physics Letters, 2017, 111, 141604.                  | 1.5  | 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. | 7.8  | 19        |
| 22 | Metastable honeycomb SrTiO <sub>3</sub> /SrIrO <sub>3</sub> heterostructures. Applied Physics Letters, 2016, 108, .   | 1.5  | 23        |
| 23 | Tunable Electron-Electron Interactions in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Nanostructures. Physical Review X, 2016, 6, .  | 2.8  | 29        |
| 24 | Electro-mechanical response of top-gated LaAlO <sub>3</sub> /SrTiO <sub>3</sub> . Journal of Applied Physics, 2016, 119, .  | 1.1  | 11        |
| 25 | Reversible tuning of two-dimensional electron gases in oxide heterostructures by chemical surface modification. Applied Physics Letters, 2016, 109, .                               | 1.5  | 6         |
| 26 | Polar metals by geometric design. Nature, 2016, 533, 68-72.   | 13.7 | 262       |
| 27 | Micrometer-Scale Ballistic Transport of Electron Pairs in $\text{LaAlO}_3/\text{SrTiO}_3$ Heterostructures. Physical Review Letters, 2016, 117, 096801.                             | 2.9  | 32        |
| 28 | 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        |
| 29 | Electromechanics of Ferroelectric-Like Behavior of LaAlO <sub>3</sub> Thin Films. Advanced Functional Materials, 2015, 25, 6538-6544.   | 7.8  | 42        |
| 30 | Electric field effects in graphene/LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterostructures and nanostructures. APL Materials, 2015, 3, 062502.                                      | 2.2  | 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, .                                  | 1.5  | 6         |
| 32 | Electron pairing without superconductivity. Nature, 2015, 521, 196-199.   | 13.7 | 141       |
| 33 | Mechanical Tuning of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interface Conductivity. Nano Letters, 2015, 15, 3547-3551.  | 4.5  | 75        |
| 34 | Gate-tunable superconducting weak link behavior in top-gated LaAlO <sub>3</sub> -SrTiO <sub>3</sub> . Applied Physics Letters, 2015, 106, .   | 1.5  | 11        |
| 35 | Emergence of room-temperature ferroelectricity at reduced dimensions. Science, 2015, 349, 1314-1317.  | 6.0  | 259       |
| 36 | Non-local piezoresponse of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterostructures. Applied Physics Letters, 2014, 104, 161606.   | 1.5  | 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, .  | 1.1 | 9         |
| 38 | Ferroelectric tunnel junctions with graphene electrodes. Nature Communications, 2014, 5, 5518.   | 5.8 | 107       |
| 39 | Room-temperature electronically-controlled ferromagnetism at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. Nature Communications, 2014, 5, 5019.   | 5.8 | 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, . | 1.5 | 13        |
| 41 | Retention of resistance states in ferroelectric tunnel memristors. Applied Physics Letters, 2013, 103, .   | 1.5 | 26        |
| 42 | Parallel Conductive-AFM Lithography on LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interfaces. IEEE Nanotechnology Magazine, 2013, 12, 518-520.   | 1.1 | 5         |
| 43 | Magnetoelectric coupling at the EuO/BaTiO <sub>3</sub> interface. Applied Physics Letters, 2013, 102, .  | 1.5 | 14        |
| 44 | Broadband Terahertz Generation and Detection at 10 nm Scale. Nano Letters, 2013, 13, 2884-2888.  | 4.5 | 26        |
| 45 | Oxide-based platform for reconfigurable superconducting nanoelectronics. Nanotechnology, 2013, 24, 375201.   | 1.3 | 26        |
| 46 | Direct imaging of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> nanostructures using piezoresponse force microscopy. APL Materials, 2013, 1, 052110.  | 2.2 | 20        |
| 47 | Anomalous Transport in Sketched Nanostructures at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Interface. Physical Review X, 2013, 3, .  | 2.8 | 23        |
| 48 | Switchable Induced Polarization in LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Heterostructures. Nano Letters, 2012, 12, 1765-1771.   | 4.5 | 167       |
| 49 | Evidence for charge "vortex duality at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. Nature Communications, 2012, 3, 955.  | 5.8 | 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, .   | 1.5 | 118       |
| 51 | Variations of ferroelectric off-centering distortion and $d_{33}$ mixing in La-doped $\text{BiFeO}_3$ thin films. Physical Review B, 2010, 82, .   | 1.1 | 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.   | 1.5 | 30        |
| 53 | Magnetoelectric coupling susceptibility from magnetodielectric effect. Applied Physics Letters, 2008, 93, .  | 1.5 | 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.                                 | 1.5 | 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. | 1.5 | 371       |