

# Junhyeok Bang

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6548535/publications.pdf>

Version: 2024-02-01

40  
papers

1,094  
citations

430754

18  
h-index

395590

33  
g-index

40  
all docs

40  
docs citations

40  
times ranked

2066  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Diffusion and thermal stability of hydrogen in ZnO. Applied Physics Letters, 2008, 92, .<br>Deep electron traps and origin of $p$ -type conductivity in the earth-abundant solar-cell material Cu <sub>2</sub> ZnSnS <sub>3</sub>       | 1.5 | 122       |
| 2  | The role of collective motion in the ultrafast charge transfer in van der Waals heterostructures. Nature Communications, 2016, 7, 11504.  | 1.1 | 110       |
| 3  | Atomic and electronic structures of single-layer FeSe on SrTiO <sub>3</sub> (001): The role of oxygen deficiency. Physical Review B, 2013, 87, .  | 5.8 | 103       |
| 4  | Modification of Defect Structures in Graphene by Electron Irradiation: Ab Initio Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2012, 116, 16070-16079.   | 1.1 | 86        |
| 5  | Electron-Rich Driven Electrochemical Solid-State Amorphization in Li-Si Alloys. Nano Letters, 2013, 13, 4511-4516.  | 1.5 | 61        |
| 6  | Multivalency-Induced Band Gap Opening at MoS <sub>2</sub> Edges. Chemistry of Materials, 2015, 27, 3326-3331.   | 4.5 | 51        |
| 7  | Localization and one-parameter scaling in hydrogenated graphene. Physical Review B, 2010, 81, .   | 3.2 | 50        |
| 8  | Photoinduced Vacancy Ordering and Phase Transition in MoTe <sub>2</sub> . Nano Letters, 2019, 19, 3612-3617.  | 1.1 | 45        |
| 9  | Directional Forces by Momentumless Excitation and Order-to-Order Transition in Peierls-Distorted Solids: The Case of GeTe. Physical Review Letters, 2018, 120, 185701.  | 4.5 | 43        |
| 10 | Understanding the presence of vacancy clusters in ZnO from a kinetic perspective. Applied Physics Letters, 2014, 104, 252101.   | 2.9 | 38        |
| 11 | Regulating energy transfer of excited carriers and the case for excitation-induced hydrogen dissociation on hydrogenated graphene. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 908-911. | 1.5 | 34        |
| 12 | Time-dependent density-functional theory molecular-dynamics study on amorphization of Sc-Sb-Te alloy under optical excitation. Npj Computational Materials, 2020, 6, .  | 3.3 | 32        |
| 13 | Carrier-Multiplication-Induced Structural Change during Ultrafast Carrier Relaxation and Nonthermal Phase Transition in Semiconductors. Physical Review Letters, 2016, 117, 126402.   | 3.5 | 32        |
| 14 | Molecular doping of ZnO by ammonia: a possible shallow acceptor. Journal of Materials Chemistry C, 2015, 3, 339-344.  | 2.9 | 29        |
| 15 | Triangular Black Phosphorus Atomic Layers by Liquid Exfoliation. Scientific Reports, 2016, 6, 23736.  | 2.7 | 28        |
| 16 | Electronic structure and transport properties of hydrogenated graphene and graphene nanoribbons. New Journal of Physics, 2010, 12, 125005.  | 1.6 | 28        |
| 17 | Atomic Structure and Diffusion of Hydrogen in ZnO. Journal of the Korean Physical Society, 2009, 55, 98-102.  | 1.2 | 23        |
| 18 |   | 0.3 | 20        |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 19 | Difficulty in predicting shallow defects with hybrid functionals: Implication of the long-range exchange interaction. <i>Physical Review B</i> , 2013, 88, .   | 1.1  | 18        |
| 20 | Phase diagram of graphene nanoribbons and band-gap bifurcation of Dirac fermions under quantum confinement. <i>Physical Review B</i> , 2012, 85, .   | 1.1  | 16        |
| 21 | Ab initio study of boron segregation and deactivation at Si/SiO <sub>2</sub> interface. <i>Microelectronic Engineering</i> , 2012, 89, 120-123.  | 1.1  | 16        |
| 22 | Phase Transition in a Memristive Suspended MoS <sub>2</sub> Monolayer Probed by Opto- and Electro-Mechanics. <i>ACS Nano</i> , 2020, 14, 13611-13618.  | 7.3  | 13        |
| 23 | Carrier Dynamics and Transfer across the CdS/MoS <sub>2</sub> Interface upon Optical Excitation. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 6544-6550.   | 2.1  | 13        |
| 24 | Suppression of nonradiative recombination in ionic insulators by defects: Role of fast electron trapping in Tl-doped CsI. <i>Physical Review B</i> , 2013, 87, .   | 1.1  | 12        |
| 25 | Carrier-induced transient defect mechanism for non-radiative recombination in InGaN light-emitting devices. <i>Scientific Reports</i> , 2016, 6, 24404.  | 1.6  | 10        |
| 26 | Optical subpicosecond nonvolatile switching and electron-phonon coupling in ferroelectric materials. <i>Physical Review B</i> , 2020, 102, .   | 1.1  | 9         |
| 27 | Giant lattice expansion by quantum stress and universal atomic forces in semiconductors under instant ultrafast laser excitation. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 24735-24741.  | 1.3  | 7         |
| 28 | Strain-induced indium clustering in non-polar a-plane InGaN quantum wells. <i>Acta Materialia</i> , 2018, 145, 109-122.  | 3.8  | 7         |
| 29 | Phonon-Enabled Carrier Transport of Localized States at Non-Polar Semiconductor Surfaces: A First-Principles-Based Prediction. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 3548-3553.  | 2.1  | 6         |
| 30 | Fully Bottom-Up Waste-Free Growth of Ultrathin Silicon Wafer via Self-Releasing Seed Layer. <i>Advanced Materials</i> , 2021, 33, e2103708.  | 11.1 | 6         |
| 31 | Robust ferromagnetism in hydrogenated graphene mediated by spin-polarized pseudospin. <i>Scientific Reports</i> , 2018, 8, 13940.  | 1.6  | 5         |
| 32 | Dynamic defect as nonradiative recombination center in semiconductors. <i>Physical Review B</i> , 2019, 100, .   | 1.1  | 5         |
| 33 | Nonlocal effect of excited carriers on the bond strength of carbazole-based OLED host materials. <i>Physical Review Materials</i> , 2020, 4, .   | 0.9  | 4         |
| 34 | Microscopic Origin for Electrically Benign Small-angle Grain Boundaries in Low-cost Semiconductors. <i>Materials Research Letters</i> , 2014, 2, 51-56.  | 4.1  | 3         |
| 35 | Substrate effect on hydrogen evolution reaction in two-dimensional Mo <sub>2</sub> C monolayers. <i>Scientific Reports</i> , 2022, 12, 6076.   | 1.6  | 3         |
| 36 | Nonequilibrium Charge-Density-Wave Melting in 1 <i>T</i> -TaS <sub>2</sub> Triggered by Electronic Excitation: A Real-Time Time-Dependent Density Functional Theory Study. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 5711-5718. | 2.1  | 3         |

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|----|---|------|-----------|
| 37 | Doping-induced antiferromagnetic bicollinear insulating state and superconducting temperature of monolayer FeSe systems. Physical Review B, 2018, 98, . | 1.1  | 2         |
| 38 | Subband-enhanced carrier multiplication in graphene nanoribbons. Physical Review B, 2021, 104, .  | 1.1  | 1         |
| 39 | Electronic Structure of O-vacancy in High-k Dielectrics and Oxide Semiconductors. Materials Research Society Symposia Proceedings, 2011, 1370, 3.       | 0.1  | 0         |
| 40 | Fully Bottom-Up Waste-Free Growth of Ultrathin Silicon Wafer via Self-Releasing Seed Layer (Adv.) Tj ETQq0 Q0 rgBT /Overlock 10                         | 11.1 | 0         |