Junhyeok Bang

List of Publications by Year in Descending Order

38 papers	878 citations	17 h-index	29 g-index
40 ext. papers	998 ext. citations	6.8 avg, IF	4.12 L-index

#	Paper	IF	Citations
38	Substrate effect on hydrogen evolution reaction in two-dimensional MoC monolayers.. *Scientific Reports*, **2022**, 12, 6076	4.9	0
37	Fully Bottom-Up Waste-Free Growth of Ultrathin Silicon Wafer via Self-Releasing Seed Layer (Adv. Mater. 41/2021). *Advanced Materials*, **2021**, 33, 2170326	24	
36	Fully Bottom-Up Waste-Free Growth of Ultrathin Silicon Wafer via Self-Releasing Seed Layer. *Advanced Materials*, **2021**, 33, e2103708	24	3
35	Time-dependent density-functional theory molecular-dynamics study on amorphization of Sc-Sb-Te alloy under optical excitation. *Npj Computational Materials*, **2020**, 6,	10.9	14
34	Nonlocal effect of excited carriers on the bond strength of carbazole-based OLED host materials. *Physical Review Materials*, **2020**, 4,	3.2	3
33	Phase Transition in a Memristive Suspended MoS Monolayer Probed by Opto- and Electro-Mechanics. *ACS Nano*, **2020**, 14, 13611-13618	16.7	5
32	Carrier Dynamics and Transfer across the CdS/MoS Interface upon Optical Excitation. *Journal of Physical Chemistry Letters*, **2020**, 11, 6544-6550	6.4	7
31	Optical subpicosecond nonvolatile switching and electron-phonon coupling in ferroelectric materials. *Physical Review B*, **2020**, 102,	3.3	4
30	Photoinduced Vacancy Ordering and Phase Transition in MoTe. *Nano Letters*, **2019**, 19, 3612-3617	11.5	30
29	Dynamic defect as nonradiative recombination center in semiconductors. *Physical Review B*, **2019**, 100,	3.3	2
28	Directional Forces by Momentumless Excitation and Order-to-Order Transition in Peierls-Distorted Solids: The Case of GeTe. *Physical Review Letters*, **2018**, 120, 185701	7.4	21
27	Doping-induced antiferromagnetic bicollinear insulating state and superconducting temperature of monolayer FeSe systems. *Physical Review B*, **2018**, 98,	3.3	2
26	Strain-induced indium clustering in non-polar a-plane InGaN quantum wells. *Acta Materialia*, **2018**, 145, 109-122	8.4	5
25	Robust ferromagnetism in hydrogenated graphene mediated by spin-polarized pseudospin. *Scientific Reports*, **2018**, 8, 13940	4.9	4
24	Giant lattice expansion by quantum stress and universal atomic forces in semiconductors under instant ultrafast laser excitation. *Physical Chemistry Chemical Physics*, **2017**, 19, 24735-24741	3.6	5
23	Phonon-Enabled Carrier Transport of Localized States at Non-Polar Semiconductor Surfaces: A First-Principles-Based Prediction. *Journal of Physical Chemistry Letters*, **2016**, 7, 3548-53	6.4	5
22	Carrier-Multiplication-Induced Structural Change during Ultrafast Carrier Relaxation and Nonthermal Phase Transition in Semiconductors. *Physical Review Letters*, **2016**, 117, 126402	7.4	20

21	The role of collective motion in the ultrafast charge transfer in van der Waals heterostructures. *Nature Communications*, **2016**, 7, 11504	17.4	79
20	Triangular Black Phosphorus Atomic Layers by Liquid Exfoliation. *Scientific Reports*, **2016**, 6, 23736	4.9	24
19	Carrier-induced transient defect mechanism for non-radiative recombination in InGaN light-emitting devices. *Scientific Reports*, **2016**, 6, 24404	4.9	9
18	Multivalency-Induced Band Gap Opening at MoS2 Edges. *Chemistry of Materials*, **2015**, 27, 3326-3331	9.6	39
17	Molecular doping of ZnO by ammonia: a possible shallow acceptor. *Journal of Materials Chemistry C*, **2015**, 3, 339-344	7.1	24
16	Microscopic Origin for Electrically Benign Small-angle Grain Boundaries in Low-cost Semiconductors. *Materials Research Letters*, **2014**, 2, 51-56	7.4	3
15	Understanding the presence of vacancy clusters in ZnO from a kinetic perspective. *Applied Physics Letters*, **2014**, 104, 252101	3.4	33
14	Difficulty in predicting shallow defects with hybrid functionals: Implication of the long-range exchange interaction. *Physical Review B*, **2013**, 88,	3.3	15
13	Electron-rich driven electrochemical solid-state amorphization in Li-Si alloys. *Nano Letters*, **2013**, 13, 4511-6	11.5	45
12	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, 908-11	11.5	29
11	Deep electron traps and origin of p-type conductivity in the earth-abundant solar-cell material Cu2ZnSnS4. *Physical Review B*, **2013**, 87,	3.3	97
10	Atomic and electronic structures of single-layer FeSe on SrTiO3(001): The role of oxygen deficiency. *Physical Review B*, **2013**, 87,	3.3	76
9	Suppression of nonradiative recombination in ionic insulators by defects: Role of fast electron trapping in Tl-doped CsI. *Physical Review B*, **2013**, 87,	3.3	11
8	Ab initio study of boron segregation and deactivation at Si/SiO2 interface. *Microelectronic Engineering*, **2012**, 89, 120-123	2.5	14
7	Modification of Defect Structures in Graphene by Electron Irradiation: Ab Initio Molecular Dynamics Simulations. *Journal of Physical Chemistry C*, **2012**, 116, 16070-16079	3.8	55
6	Phase diagram of graphene nanoribbons and band-gap bifurcation of Dirac fermions under quantum confinement. *Physical Review B*, **2012**, 85,	3.3	15
5	Electronic Structure of O-vacancy in High-k Dielectrics and Oxide Semiconductors. *Materials Research Society Symposia Proceedings*, **2011**, 1370, 3		
4	Electronic structure and transport properties of hydrogenated graphene and graphene nanoribbons. *New Journal of Physics*, **2010**, 12, 125005	2.9	17

3	Localization and one-parameter scaling in hydrogenated graphene. *Physical Review B*, **2010**, 81,	3.3	41
2	Atomic Structure and Diffusion of Hydrogen in ZnO. *Journal of the Korean Physical Society*, **2009**, 55, 98-102	0.6	18
1	Diffusion and thermal stability of hydrogen in ZnO. *Applied Physics Letters*, **2008**, 92, 132109	3.4	104