Changhyun Ko

List of Publications by Year
in descending order

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54	6,160	172386	182361
papers	citations	29 h-index	51 g-index

56	56	56	10469
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanoscale thermal imaging of VO2 via Pooleâ€“Frenkel conduction. Applied Physics Letters, 2022, 120, .	1.5	4
2	Suppressed phonon conduction by geometrically induced evolution of transport characteristics from Brownian motion into LÃ©vy flight. NPG Asia Materials, 2022, 14, .	3.8	0
3	In-Situ Nano-Auger Probe of Chloride-Ions during CH3NH3PbI3â^'xClx Perovskite Formation. Materials, 2021, 14, 1102.	1.3	5
4	Remote Switching of Elastic Movement of Decorated Ligand Nanostructures Controls the Adhesionâ€Regulated Polarization of Host Macrophages. Advanced Functional Materials, 2021, 31, 2008698.	7.8	15
5	Tungsten-doped vanadium dioxide thin film synthesis by alternate layer-by-layer growth and post-deposition annealing. Materials Letters, 2020, 262, 127081.	1.3	4
6	Electric-field control of spin dynamics during magnetic phase transitions. Science Advances, 2020, 6, .	4.7	22
7	Reconfigurable Local Photoluminescence of Atomically-Thin Semiconductors via Ferroelectric-Assisted Effects. Nanomaterials, 2019, 9, 1620.	1.9	3
8	A 0.2 V Microâ€Electromechanical Switch Enabled by a Phase Transition. Small, 2018, 14, e1703621.	5.2	23
9	Tuning the optical and electrical properties of MoS2 by selective Ag photo-reduction. Applied Physics Letters, 2018, 113, .	1.5	17
10	Black Arsenic: A Layered Semiconductor with Extreme Inâ€Plane Anisotropy. Advanced Materials, 2018, 30, e1800754.	11.1	161
11	Anomalous Above-Gap Photoexcitations and Optical Signatures of Localized Charge Puddles in Monolayer Molybdenum Disulfide. ACS Nano, 2017, 11, 2115-2123.	7.3	29
12	Anomalously low electronic thermal conductivity in metallic vanadium dioxide. Science, 2017, 355, 371-374.	6.0	307
13	Pressurizing Field-Effect Transistors of Few-Layer MoS₂ in a Diamond Anvil Cell. Nano Letters, 2017, 17, 194-199.	4.5	31
14	Variable range hopping electric and thermoelectric transport in anisotropic black phosphorus. Applied Physics Letters, 2017, 111, .	1.5	41
15	Enhancing Modulation of Thermal Conduction in Vanadium Dioxide Thin Film by Nanostructured Nanogaps. Scientific Reports, 2017, 7, 7131.	1.6	11
16	Reducing adhesion energy of micro-relay electrodes by ion beam synthesized oxide nanolayers. APL Materials, 2017, 5, 036103.	2.2	2
17	Quantifying van der Waals Interactions in Layered Transition Metal Dichalcogenides from Pressure-Enhanced Valence Band Splitting. Nano Letters, 2017, 17, 4982-4988.	4.5	53
18	Band Engineering by Controlling vdW Epitaxy Growth Mode in 2D Gallium Chalcogenides. Advanced Materials, 2016, 28, 7375-7382.	11.1	28

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19	Modulating Photoluminescence of Monolayer Molybdenum Disulfide by Metalâ€“Insulator Phase Transition in Active Substrates. Small, 2016, 12, 3976-3984.	5.2	30
20	Site Selective Doping of Ultrathin Metal Dichalcogenides by Laserâ€Assisted Reaction. Advanced Materials, 2016, 28, 341-346.	11.1	101
21	Pressure-induced structural transition of CdxZn1â^'xO alloys. Applied Physics Letters, 2016, 108, .	1.5	10
22	Laser-Assisted Doping: Site Selective Doping of Ultrathin Metal Dichalcogenides by Laser-Assisted Reaction (Adv. Mater. 2/2016). Advanced Materials, 2016, 28, 392-392.	11.1	1
23	Ultrasensitive photodetectors exploiting electrostatic trapping and percolation transport. Nature Communications, 2016, 7, 11924.	5.8	59
24	Ferroelectrically Gated Atomically Thin Transitionâ€Metal Dichalcogenides as Nonvolatile Memory. Advanced Materials, 2016, 28, 2923-2930.	11.1	134
25	Bandgap Restructuring of the Layered Semiconductor Gallium Telluride in Air. Advanced Materials, 2016, 28, 6465-6470.	11.1	58
26	Dynamic Control of Optical Response in Layered Metal Chalcogenide Nanoplates. Nano Letters, 2016, 16, 488-496.	4.5	26
27	MoS2 Heterojunctions by Thickness Modulation. Scientific Reports, 2015, 5, 10990.	1.6	93
28	Visualizing nanoscale excitonic relaxation properties of disordered edges and grain boundaries in monolayer molybdenum disulfide. Nature Communications, 2015, 6, 7993.	5.8	204
29	Anisotropic in-plane thermal conductivity of black phosphorus nanoribbons at temperatures higher than 100â€‰K. Nature Communications, 2015, 6, 8573.	5.8	311
30	Doping against the Native Propensity of MoS₂: Degenerate Hole Doping by Cation Substitution. Nano Letters, 2014, 14, 6976-6982.	4.5	574
31	Monolayer behaviour in bulk ReS2 due to electronic and vibrational decoupling. Nature Communications, 2014, 5, 3252.	5.8	906
32	Two-dimensional semiconductor alloys: Monolayer Mo1â^'xWxSe2. Applied Physics Letters, 2014, 104, .	1.5	154
33	Defects activated photoluminescence in two-dimensional semiconductors: interplay between bound, charged and free excitons. Scientific Reports, 2013, 3, 2657.	1.6	876
34	Probing compositional disorder in vanadium oxide thin films grown on atomic layer deposited hafnia on silicon by capacitance spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	0.9	2
35	Evolution of local work function in epitaxial VO₂ thin films spanning the metal-insulator transition. Applied Physics Letters, 2012, 101, 191605.	1.5	31
36	In situ studies on twinning and cracking proximal to insulatorâ€“metal transition in self-supported VO₂ / Si₃N₄ membranes. Journal of Materials Research, 2012, 27, 1476-1481.	1.2	17

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37	Correlated oxide phase transition switch: A paradigm in electron devices. , 2011, , .		0
38	Oxide Electronics Utilizing Ultrafast Metal-Insulator Transitions. Annual Review of Materials Research, 2011, 41, 337-367.	4.3	818
39	Voltage-Pulse-Induced Switching Dynamics in $ hbox{VO}_{2}$ Thin-Film Devices on Silicon. IEEE Electron Device Letters, 2011, 32, 1582-1584.	2.2	34
40	Work Function of Vanadium Dioxide Thin Films Across the Metal-Insulator Transition and the Role of Surface Nonstoichiometry. ACS Applied Materials & Interfaces, 2011, 3, 3396-3401.	4.0	125
41	Studies on oxygen chemical surface exchange and electrical conduction in thin film nanostructured titania at high temperatures and varying oxygen pressure. Journal of Chemical Physics, 2011, 134, 014704.	1.2	9
42	Studies on electric triggering of the metal-insulator transition in VO2 thin films between 77 K and 300 K. Journal of Applied Physics, 2011, 110, .	1.1	62
43	Size effects on stress relaxation across the metalâ€“insulator transition in VO₂ thin films. Journal of Materials Research, 2011, 26, 1384-1387.	1.2	13
44	Thickness-dependent orientation evolution in nickel thin films grown on yttria-stabilized zirconia single crystals. Philosophical Magazine, 2011, 91, 4311-4323.	0.7	3
45	Nanoscale imaging and control of resistance switching in VO2 at room temperature. Applied Physics Letters, 2010, 96, .	1.5	120
46	Three-terminal field effect devices utilizing thin film vanadium oxide as the channel layer. Journal of Applied Physics, 2010, 107, .	1.1	142
47	High temperature electrical conduction in nanoscale hafnia films under varying oxygen partial pressure. Applied Physics Letters, 2010, 97, 082102.	1.5	10
48	Thermal conductivity and dynamic heat capacity across the metal-insulator transition in thin film VO2. Applied Physics Letters, 2010, 96, .	1.5	178
49	Dielectric and carrier transport properties of vanadium dioxide thin films across the phase transition utilizing gated capacitor devices. Physical Review B, 2010, 82, .	1.1	109
50	A new single element phase transition memory. , 2010, , .		0
51	Dispersive capacitance and conductance across the phase transition boundary in metal-vanadium oxide-silicon devices. Journal of Applied Physics, 2009, 106, .	1.1	14
52	Stability of electrical switching properties in vanadium dioxide thin films under multiple thermal cycles across the phase transition boundary. Journal of Applied Physics, 2008, 104, 086105.	1.1	37
53	Effect of ultraviolet irradiation on electrical resistance and phase transition characteristics of thin film vanadium oxide. Journal of Applied Physics, 2008, 103, .	1.1	25
54	Observation of electric field-assisted phase transition in thin film vanadium oxide in a metal-oxide-semiconductor device geometry. Applied Physics Letters, 2008, 93, .	1.5	118