

# Byungjin Cho

## List of Publications by Year in descending order

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Version: 2024-02-01

46  
papers

2,297  
citations

394390

19  
h-index

223791

46  
g-index

48  
all docs

48  
docs citations

48  
times ranked

3741  
citing authors

#	ARTICLE	IF	CITATIONS
1	Charge-transfer-based Gas Sensing Using Atomic-layer MoS <sub>2</sub> . Scientific Reports, 2015, 5, 8052.	3.3	489
2	Chemical Sensing of 2D Graphene/MoS <sub>2</sub> Heterostructure device. ACS Applied Materials & Interfaces, 2015, 7, 16775-16780.	8.0	375
3	Graphene-based gas sensor: metal decoration effect and application to a flexible device. Journal of Materials Chemistry C, 2014, 2, 5280-5285.	5.5	198
4	Bifunctional Sensing Characteristics of Chemical Vapor Deposition Synthesized Atomic-Layered MoS <sub>2</sub> . ACS Applied Materials & Interfaces, 2015, 7, 2952-2959.	8.0	162
5	Effect of Nb Doping on Chemical Sensing Performance of Two-Dimensional Layered MoSe <sub>2</sub> . ACS Applied Materials & Interfaces, 2017, 9, 3817-3823.	8.0	143
6	Two-Dimensional Atomic-Layered Alloy Junctions for High-Performance Wearable Chemical Sensor. ACS Applied Materials & Interfaces, 2016, 8, 19635-19642.	8.0	83
7	Alloyed 2D Metal-Semiconductor Atomic Layer Junctions. Nano Letters, 2016, 16, 1890-1895.	9.1	77
8	Alloyed 2D Metal-Semiconductor Heterojunctions: Origin of Interface States Reduction and Schottky Barrier Lowering. Nano Letters, 2016, 16, 5928-5933.	9.1	57
9	Self-Formed Channel Devices Based on Vertically Grown 2D Materials with Large Surface Area and Their Potential for Chemical Sensor Applications. Small, 2018, 14, e1704116.	10.0	57
10	Ultra-flexible and rollable 2D-MoS <sub>2</sub> /Si heterojunction-based near-infrared photodetector via direct synthesis. Nanoscale, 2021, 13, 672-680.	5.6	54
11	Enhanced Performance of MoS <sub>2</sub> Photodetectors by Inserting an ALD-Processed TiO <sub>2</sub> Interlayer. Small, 2018, 14, 1703176.	10.0	51
12	Modulation of Synaptic Plasticity Mimicked in Al Nanoparticle-Embedded IGZO Synaptic Transistor. Advanced Electronic Materials, 2020, 6, 1901072.	5.1	47
13	Metal Decoration Effects on the Gas-Sensing Properties of 2D Hybrid-Structures on Flexible Substrates. Sensors, 2015, 15, 24903-24913.	3.8	41
14	Room-temperature sputtered electrocatalyst WSe <sub>2</sub> nanomaterials for hydrogen evolution reaction. Journal of Energy Chemistry, 2020, 47, 107-111.	12.9	41
15	Improved electrical performance of a "gel IGZO transistor with high-k Al <sub>2</sub> O <sub>3</sub> gate dielectric achieved by post annealing. Nano Convergence, 2019, 6, 24.	12.1	37
16	Low Power MoS <sub>2</sub> /Nb <sub>2</sub> O <sub>5</sub> Memtransistor Device with Highly Reliable Heterosynaptic Plasticity. Advanced Functional Materials, 2021, 31, 2104174.	14.9	33
17	Wafer-Scale Integration of Highly Uniform and Scalable MoS <sub>2</sub> Transistors. ACS Applied Materials & Interfaces, 2017, 9, 37146-37153.	8.0	32
18	Novel Exfoliation of High-Quality 2H-MoS <sub>2</sub> Nanoflakes for Solution-Processed Photodetector. Nanomaterials, 2020, 10, 1045.	4.1	26

#	ARTICLE	IF	CITATIONS
19	Ultraviolet Wavelength-Dependent Optoelectronic Properties in Two-Dimensional NbSe <sub>2</sub> /WS <sub>2</sub> van der Waals Heterojunction-Based Field-Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 41537-41545.	8.0	23
20	Room-Temperature Solid-State Grown WO <sub>3</sub> Film on Plastic Substrate for Extremely Sensitive Flexible NO <sub>2</sub> Gas Sensors. Advanced Materials Interfaces, 2018, 5, 1700811.	3.7	20
21	Al <sub>2</sub> O <sub>3</sub> -Induced Sub-Gap Doping on the IGZO Channel for the Detection of Infrared Light. ACS Applied Electronic Materials, 2020, 2, 1478-1483.	4.3	19
22	Facile Fabrication of a Two-Dimensional TMD/Si Heterojunction Photodiode by Atmospheric-Pressure Plasma-Enhanced Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2018, 10, 36136-36143.	8.0	17
23	Enhanced Photoresponse of WS <sub>2</sub> Photodetectors through Interfacial Defect Engineering Using a TiO <sub>2</sub> Interlayer. ACS Applied Electronic Materials, 2020, 2, 838-845.	4.3	17
24	Brain-inspired ferroelectric Si nanowire synaptic device. APL Materials, 2021, 9, .	5.1	17
25	Accelerated Learning in Wide-Band-Gap AlN Artificial Photonic Synaptic Devices: Impact on Suppressed Shallow Trap Level. Nano Letters, 2021, 21, 7879-7886.	9.1	17
26	Influence of Gas Adsorption and Gold Nanoparticles on the Electrical Properties of CVD-Grown MoS <sub>2</sub> Thin Films. ACS Applied Materials & Interfaces, 2016, 8, 21612-21617.	8.0	16
27	Broad-Band Photocurrent Enhancement in MoS <sub>2</sub> Layers Directly Grown on Light-Trapping Si Nanocone Arrays. ACS Applied Materials & Interfaces, 2017, 9, 6314-6319.	8.0	16
28	The influence of interfacial tensile strain on the charge transport characteristics of MoS <sub>2</sub> -based vertical heterojunction devices. Nanoscale, 2016, 8, 17598-17607.	5.6	15
29	High-performing MoS <sub>2</sub> -embedded Si photodetector. Materials Science in Semiconductor Processing, 2017, 71, 35-41.	4.0	13
30	Improvement of the Bias Stress Stability in 2D MoS <sub>2</sub> and WS <sub>2</sub> Transistors with a TiO <sub>2</sub> Interfacial Layer. Nanomaterials, 2019, 9, 1155.	4.1	11
31	Artificial 2D van der Waals Synapse Devices via Interfacial Engineering for Neuromorphic Systems. Nanomaterials, 2020, 10, 88.	4.1	11
32	Scalable integration of periodically aligned 2D-MoS <sub>2</sub> nanoribbon array. APL Materials, 2018, 6, 076102.	5.1	10
33	In-depth Investigation of Hg <sub>2</sub> Br <sub>2</sub> Crystal Growth and Evolution. Materials, 2019, 12, 4224.	2.9	10
34	Dual-Terminal Stimulated Heterosynaptic Plasticity of IGZO Memtransistor with Al <sub>2</sub> O <sub>3</sub> /TiO <sub>2</sub> Double-Oxide Structure. ACS Applied Electronic Materials, 2022, 4, 2923-2932.	4.3	10
35	One-step H <sub>2</sub> S reactive sputtering for 2D MoS <sub>2</sub> /Si heterojunction photodetector. Nanotechnology, 2020, 31, 225205.	2.6	9
36	In-depth analysis on electrical parameters of floating gate IGZO synaptic transistor affecting pattern recognition accuracy. Nanotechnology, 2022, 33, 215201.	2.6	8

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37	Comparative Analysis of Hg <sub>2</sub> Br <sub>2</sub> and Hg <sub>2</sub> Br <sub>x</sub> Cl <sub>2-x</sub> Crystals Grown via PVT. Crystals, 2020, 10, 1096.	2.2	7
38	Low Power Switching Characteristics of CNT Field Effect Transistor Device with Al-Doped ZrHfO <sub>2</sub> Gate Dielectric. Journal of Nanomaterials, 2018, 2018, 1-7.	2.7	6
39	Unveiling the Role of Al <sub>2</sub> O <sub>3</sub> Interlayer in Indium-Gallium-Zinc Oxide Transistors. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000621.	1.8	4
40	Three-Dimensional Atomistic Tomography of W-Based Alloyed Two-Dimensional Transition Metal Dichalcogenides. ACS Applied Materials & Interfaces, 2018, 10, 30640-30648.	8.0	3
41	High Purification of Hg <sub>2</sub> Br <sub>2</sub> Powder for Acousto-Optic Tunable Filters Utilizing a PVT Process. Korean Journal of Materials Research, 2018, 28, 732-737.	0.2	3
42	Physical Vapor Transport Process for Highly Purified Hg <sub>2</sub> Br <sub>2</sub> Crystal: from Powder Purification to Crystal Growth. Journal of Korean Institute of Metals and Materials, 2022, 60, 551-556.	1.0	3
43	Photonics: Enhanced Performance of MoS <sub>2</sub> Photodetectors by Inserting an ALD-Processed TiO <sub>2</sub> Interlayer (Small 5/2018). Small, 2018, 14, 1870022.	10.0	2
44	Facile fabrication of ZnO nanowire memory device based on chemically-treated surface defects. Nanotechnology, 2019, 30, 155201.	2.6	2
45	Preparation and Properties of 2D Materials. Nanomaterials, 2020, 10, 764.	4.1	0
46	In-depth analysis on electrical parameters of floating gate IGZO synaptic transistor affecting pattern recognition accuracy. Nanotechnology, 2022, , .	2.6	0