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EDUCATION

MS/PhD	Sungkyunkwan University Electronic & Electrical Engineering Dissertation Title: Process Technology for 2D Semiconducting Devices (Advisor: Prof. Dr. Jin-Hong Park)	2019
BS	Sungkyunkwan University Electronic & Electrical Engineering	2014

APPOINTMENTS

Associate Professor	Gwangju Institute of Science & Technology Department of Semiconductor Engineering	Mar. 2026 – Present
Assistant Professor	Gwangju Institute of Science & Technology Department of Semiconductor Engineering	Mar. 2025 – Feb. 2026
Assistant Professor	Gwangju Institute of Science & Technology School of Electrical Engineering & Computer Science	Nov. 2021 – Feb. 2025
Research Fellow	Nanyang Technological University School of Electrical & Electronic Engineering (Supervisor: Prof. Dr. Donguk Nam)	Mar. 2019 – Sep. 2021

RESEARCH INTEREST

Process technologies for 2D material-based electronics/optoelectronics

- Process technology for 2D material-based device array and its application to logic circuits.
- Strain and doping techniques for high-performance 2D material-based electronic and optoelectronic devices.
- Reconfigurable FETs for logic and neuromorphic applications.

Heterostructure-based electronic and optoelectronic devices

- Polymer heterostructure-based phototransistors.
- 2D material-based van der Waals heterostructure for high-performance non-volatile memory devices.
- Energy band engineering in van der Waals heterojunction for neuromorphic applications

Development of neuromorphic devices and its applications in system level

- Polymer-electrolyte-based atomic switching device and logic gate circuit.
- Synaptic/Neuronal devices based on polymer atomic switching device.
- 2D material-based optoelectronic synaptic device.

AWARDS

Young Scientist Award Korea Flexible & Printed Electronics Society	2025
Superior Research Award: Master course First prize in electrical and electronic sector Sungkyunkwan University	2014, 2015
Superior Research Award: Ph.D. course Second prize in electrical and electronic sector Sungkyunkwan University	2017

REFEREES

Prof. Dr. Jin-Hong Park (Ph.D. Advisor)

Department of Electrical and Computing Engineering
SKKU Advanced Institute of Nanotechnology (SAINT)
Sungkyunkwan University
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Prof. Dr. Sungjoo Lee (Ph.D. Co-Advisor)

Department of Electrical and Computing Engineering
SKKU Advanced Institute of Nanotechnology (SAINT)
Sungkyunkwan University
E-mail: leesj@skku.edu

Prof. Dr. Donguk Nam (Post-Doc. Supervisor)

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Seoul National University
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5 REPRESENTATIVE PUBLICATIONS

No.	Title	Journal	Authors
1	A Van der Waals Optoelectronic Synapse with Tunable Positive and Negative Post-Synaptic Current for Highly Accurate Spiking Neural Networks	<i>Adv. Funct. Mater.</i> (2025)	H. Yoon ⁺ , S. Park ⁺ , Y. K. Kim ⁺ , J. Baek, K. H. Kim, S. Yun, H. Son, J. Choi, B. C. Jang*, and <u>D.-H. Kang*</u>
2	Revisiting Ferroelectric-Gated Phototransistors: A Tripartite Synapse-Inspired Approach to In-Sensor Image Processing	<i>Adv. Mater.</i> (2025)	Y. Lee ⁺ , D. H. Seo ⁺ , J. S. Lee ⁺ , J. M. Jeon ⁺ , H. R. Kim, M. S. Kim, C. Ahn, S.-U. An, J. Choi, H. Kim, C. K. Jeong, H. Lim, <u>D.-H. Kang*</u> , and Y. M. Song*
3	Tactile neuromorphic system: convergence of triboelectric polymer sensor and ferroelectric polymer synapse	<i>ACS Nano</i> (2023)	H. Kim, S. Oh, H. Choo, <u>D.-H. Kang*</u> , and J.-H. Park*
4	Pseudo-magnetic field-induced slow carrier dynamics in periodically strained graphene	<i>Nat. Commun.</i> (2021)	<u>D.-H. Kang*</u> , H. Sun ⁺ , M. Luo ⁺ , K. Lu, M. Chen, Y. Kim, Y. Jung, X. Gao, S. J. Parluhutan, J. Ge, S. W. Koh, D. Giovanni, T. C. Sum, Q. J. Wang, H. Li, and D. Nam*
5	An Ultrahigh-Performance Photodetector based on a Perovskite-Transition-Metal-Dichalcogenide Hybrid Structure	<i>Adv. Mater.</i> (2016)	<u>D.-H. Kang</u> , S. R. Pae, J. Shim, J. Jeon, J. W. Leem, J. S. Yu, S. Lee, B. Shin*, J.-H. Park*

FULL-PUBLICATION LIST (MAIN-AUTHORED)

No.	Title	Journal	Authors
23	Avalanche-Enhanced Infrared Photodetection via Interlayer Absorption in a WSe ₂ /MoS ₂ Heterostructure	<i>Nano Lett.</i> (2026)	B. Son ⁺ , H. Son ⁺ , Y. Kim, D. Kim, K. H. Kim, B. C. Jang, <u>D.-H. Kang*</u> , and D. Nam*
22	<i>(Invited Review)</i> Spectrally Tunable 2D Material-Based Infrared Photodetectors for Intelligent Optoelectronics	<i>Adv. Funct. Mater.</i> (2025)	J. Ha ⁺ , Y. Ma ⁺ , Y. N. An ⁺ , S.-U. An ⁺ , H. H. Jung, S. Varjamo, J. Yoo, J. Min, H. Kim, F. Ahmed, S. H. Chae, Y. M. Song, W. Cai, T. Hasan, Z. Sun, <u>D.-H. Kang*</u> , H.-J. Shin*, Y. Dai*, and H. H. Yoon*
21	<i>(Supplementary Cover Article)</i> Polarity engineering in a single MoTe ₂ device for homogeneous complementary circuit applications	<i>ACS Appl. Mater. Interface</i> (2025)	H. Son, S. Lee, S. Lee, H. Go, J. Baek, S.-U. An, J. Lee, H. H. Yoon, H.-J. Shin, J.-H. Lee, H. Lim, I.-M. Yi, M. Kim*, and <u>D.-H. Kang*</u>
20	A Van der Waals Optoelectronic Synapse with Tunable Positive and Negative Post-Synaptic Current for Highly Accurate Spiking Neural Networks	<i>Adv. Funct. Mater.</i> (2025)	H. Yoon ⁺ , S. Park ⁺ , Y. K. Kim ⁺ , J. Baek, K. H. Kim, S. Yun, H. Son, J. Choi, B. C. Jang*, and <u>D.-H. Kang*</u>
19	<i>(Invited Review)</i> Enabling the Angstrom Era: 2D Material-Based Multi-Bridge-Channel Complementary Field Effect Transistors	<i>npj 2D Mater. Appl.</i> (2025)	H. H. Yoon ⁺ , J. Y. Park ⁺ , Y. T. Megra ⁺ , J. Baek ⁺ , M. Song, D. Akinwande*, D. Ha*, <u>D.-H. Kang*</u> , and H.-J. Shin*

18	Revisiting Ferroelectric-Gated Phototransistors: A Tripartite Synapse-Inspired Approach to In-Sensor Image Processing	<i>Adv. Mater.</i> (2025)	Y. Lee ⁺ , D. H. Seo ⁺ , J. S. Lee ⁺ , J. M. Jeon ⁺ , H. R. Kim, M. S. Kim, C. Ahn, S.-U. An, J. Choi, H. Kim, C. K. Jeong, H. Lim, <u>D.-H. Kang*</u> , and Y. M. Song*
17	<i>(Invited Review)</i> 2D Materials in Logic Technology: Power Efficiency and Scalability in 2DM-MBC CFET	<i>Nano Lett.</i> (2025)	S. H. Shin ⁺ , <u>D.-H. Kang*</u> , H. H. Yoon ⁺ , J. Y. Park ⁺ , M. Song, H. Son, D. Ha*, and H.-J. Shin*
16	Tactile neuromorphic system: convergence of triboelectric polymer sensor and ferroelectric polymer synapse	<i>ACS Nano</i> (2023)	H. Kim, S. Oh, H. Choo, <u>D.-H. Kang*</u> , and J.-H. Park*
15	Pseudo-magnetic field-induced slow carrier dynamics in periodically strained graphene	<i>Nat. Commun.</i> (2021)	<u>D.-H. Kang*</u> , H. Sun ⁺ , M. Luo ⁺ , K. Lu, M. Chen, Y. Kim, Y. Jung, X. Gao, S. J. Parluhutan, J. Ge, S. W. Koh, D. Giovanni, T. C. Sum, Q. J. Wang, H. Li, and D. Nam*
14	A Neuromorphic Device Implemented on a Salmon-DNA Electrolyte and its Application to Artificial Neural Networks	<i>Adv. Sci.</i> (2019)	<u>D.-H. Kang*</u> , J.-H. Kim ⁺ , S. Oh, H.-Y. Park, S. R. Dugasani, B.-S. Kang, C. Choi, R. Choi, S. Lee, S. H. Park, K. Heo, J.-H. Park*
13	Rhenium Diselenide (ReSe ₂) Near-Infrared Photodetector: Performance Enhancement by Selective p-Doping Technique	<i>Adv. Sci.</i> (2019)	J. Kim ⁺ , K. Heo ⁺ , <u>D.-H. Kang*</u> , C. Shin, S. Lee, H.-Y. Yu, J.-H. Park*
12	Highly Sensitive and Reusable Membraneless Field-Effect Transistor (FET)-Type Tungsten Diselenide (WSe ₂) Biosensors	<i>ACS Appl. Mater. & Interfaces</i> (2018)	H. W. Lee ⁺ , <u>D.-H. Kang*</u> , J. H. Cho, S. Lee, D.-H. Jun, J.-H. Park*
11	<i>(Invited Review)</i> Recent progress in 2D heterojunction-based electronic and optoelectronic devices	<i>Carbon</i> (2018)	J. Shim ⁺ , <u>D.-H. Kang*</u> , Y. Kim, H. Kim, W. Kong, S.-H. Bae, I. Almansouri, K. Lee, J.-H. Park*, J. Kim*
10	Poly-4-vinylphenol (PVP) and poly(melamine-co-formaldehyde) (PMF)-based atomic switching device and its application to logic gate circuits	<i>ACS Appl. Mater. & Interfaces</i> (2017)	<u>D.-H. Kang*</u> , W.-Y. Choi ⁺ , H. Woo, S. Jang, J. Shim, S. Kim, S. Lee*, S. Jeon*, J.-H. Park*
9	Self-Assembled Layer (SAL)-based Doping on Black Phosphorus (BP) Transistor and Photodetector	<i>ACS Photon.</i> (2017)	<u>D.-H. Kang*</u> , M. H. Jeon ⁺ , S. Jang, W.-Y. Choi, K. N. Kim, J. Kim, S. Lee, G. Y. Yeom*, J.-H. Park*
8	Rhenium Diselenide (ReSe ₂) Infrared Photodetector enhanced by (3-Aminopropyl) trimethoxysilane (APTMS) Treatment	<i>Org. Electron.</i> (2017)	M. H. Ali ⁺ , <u>D.-H. Kang*</u> , J.-H. Park*
7	A High-Performance WSe ₂ /h-BN Photodetector using a Triphenylphosphine (PPh ₃)-Based n-Doping Technique	<i>Adv. Mater.</i> (2016)	S.-H. Jo ⁺ , <u>D.-H. Kang*</u> , J. Shim, J. Jeon, M. H. Jeon, G. Yoo, J. Kim, J. Lee, G. Y. Yeom, S. Lee, H.-Y. Yu, C. Choi, J.-H. Park*

6	An Ultrahigh-Performance Photodetector based on a Perovskite-Transition-Metal-Dichalcogenide Hybrid Structure	<i>Adv. Mater.</i> (2016)	D.-H. Kang , S. R. Pae, J. Shim, J. Jeon, J. W. Leem, J. S. Yu, S. Lee, B. Shin*, J.-H. Park*
5	Ultra-low n- and p-Doping on Two-dimensional Transition Metal Dichalcogenides using DNA Nanostructure doped by Combination of Lanthanide and Metal Ions	<i>Sci. Rep.</i> (2016)	D.-H. Kang ⁺ , S. R. Dugasani ⁺ , H.-Y. Park, J. Jeon, S. Lee, Y. Roh, S. H Park*, J.-H. Park*
4	Nondegenerate n-Type Doping Phenomenon on Molybdenum Disulfide (MoS ₂) by Zinc Oxide (ZnO)	<i>Mater. Res. Bull.</i> (2016)	D.-H. Kang ⁺ , S.-T. Hong ⁺ , A. Oh, S.-H. Kim, H.-Y. Yu, J.-H. Park*
3	<i>(Back Cover)</i> High-Performance Transition Metal Dichalcogenide Photodetectors Enhanced by Self-Assembled Monolayer Doping	<i>Adv. Funct. Mater.</i> (2015)	D.-H. Kang ⁺ , M.-S. Kim ⁺ , J. Shim, J. Jeon, H.-Y. Park, W.-S. Jung, H.-Y. Yu, C.-H. Pang, S. Lee, J.-H. Park*
2	Controllable Nondegenerate p-Type Doping of Tungsten Diselenide by Octadecyltrichlorosilane	<i>ACS Nano</i> (2015)	D.-H. Kang , J. Shim, S. K. Jang, J. Jeon, M. H. Jeon, G. Y. Yeom, W.-S. Jung, Y. H. Jang, S. Lee, J.-H. Park*
1	Indium (In)- and Tin (Sn)-based Metal Induced Crystallization (MIC) on Amorphous Germanium (α -Ge)	<i>Mater. Res. Bull.</i> (2014)	D.-H. Kang and J.-H. Park*

FULL-PUBLICATION LIST (CONTRIBUTING-AUTHORED)

No.	Title	Journal	Authors
27	Timing-Dependent Spiking Neural Network: Fully On-Board Hardware Implementation with Photoelectroactive Van der Waals Synapses	<i>Adv. Mater.</i> (2025)	S. Kim, J.-I. Cho, S. Lee, Y. Shin, J.-J. Lee, T. Jang, H. Kim, J. Oh, S. Lee, K. Kho, J. Kang, J. Lee, D.-H. Kang , B. C. Jang, J.-H. Ahn, Y. Lee, S. M. Won*, J.-H. Park*, and S. Oh*
26	Configurable anti-ambipolar photoresponses for optoelectronic multi-valued logic gates	<i>Appl. Phys. Lett.</i> (2023)	X. Cui, S. Kim, F. Ahmed, M. Du, A. C. Liapis, J. A. Munoz, A. M. Shafi, M. G. Uddin, F. Ali, Y. Zhang, D.-H. Kang , H. Lipsanen, S. Kang, H. H. Yoon*, and Z. Sun*
25	Direct bandgap GeSn nanowires enabled with ultrahigh tension from harnessing intrinsic compressive strain	<i>Appl. Phys. Lett.</i> (2022)	D. Burt, H.-J. Joo, Y. Kim, Y. Jung, M. Chen, M. Luo, D.-H. Kang , S. Assali, L. Zhang, B. Son, W. Fan, O. Moutanabbir, Z. Ikonic, C. S. Tan, Y.-C. Huang, and D. Nam*
24	Triaxially strained suspended graphene for large-area pseudo-magnetic fields	<i>Opt. Lett.</i> (2022)	M. Luo, H. Sun, Z. Qi, K. Lu, M. Chen, D.-H. Kang , Y. Kim, D. Burt, X. Yu, C. Wang, Y. D. Kim, H. Wang, Q. J. Wang, D. Nam*
23	1D photonic crystal direct bandgap GeSn-on-insulator laser	<i>Appl. Phys. Lett.</i> (2021)	H.-J. Joo, Y. Kim, D. Burt, Y. Jung, L. Zhang, M. Chen, S. J. Parluhan, D.-H. Kang , C. Lee, S. Assali, Z. Ikonic, O. Moutanabbir, Y.-H. Cho, C. S. Tan, D. Nam*

22	Heterostrain-enabled dynamically tunable moiré superlattice in twisted bilayer graphene	<i>Sci. Rep.</i> (2021)	X. Gao, H. Sun, D.-H. Kang , C. Wang, Q. J. Wang, D. Nam*
21	Biaxially strained germanium crossbeam with a high-quality optical cavity for on-chip laser applications	<i>Opt. Express</i> (2021)	Y. Jung, Y. Kim, D. Burt, H.-J. Joo, D.-H. Kang , M. Luo, M. Chen, L. Zhang, C. S. Tan, D. Nam*
20	Controllable potential barrier for multiple negative-differential-transconductance and its application to multi-valued logic computing	<i>Npj 2D Mater. Appl.</i> (2021)	S. Seo, J. Koo, J.W. Choi, K. Heo, M. Andreev, J.J. Lee, J.H. Lee, J.I. Cho, H. Kim, G. Yoo, D.-H. Kang , J. Shim, J.-H. Park*
19	Effect of large work function modulation of MoS ₂ by controllable chlorine doping using a remote plasma	<i>J. Mater. Chem. C</i> (2020)	K.H. Kim, K.S. Kim, Y.J. Ji, I. Moon, K. Heo, D.-H. Kang , K.N. Kim, W.J. Yoo, J.-H. Park, G.Y. Yeom*
18	Ultrasensitive MoS ₂ photodetector by serial nano-bridge multi-heterojunction	<i>Nat. Commun.</i> (2019)	K. S. Kim, Y. J. Ji, K. H. Kim, S. Choi, D.-H. Kang , K. Heo, S. Cho, S. Yim, S. Lee, J.-H. Park, Y. S. Jung, G. Y. Yeom*
17	Stable and Reversible Triphenylphosphine-Based n-Type Doping Technique for Molybdenum Disulfide (MoS ₂)	<i>ACS Appl. Mater. & Interfaces</i> (2018)	K. Heo ⁺ , S. H. Jo ⁺ , J. Shim, D.-H. Kang , J. H. Kim, J.-H. Park*
16	Polarity control in a single transition metal dichalcogenide (TMD) transistor for homogeneous complementary logic circuits	<i>Nanoscale</i> (2019)	J. Shim, S. W. Jang, J.-H. Lim, H. Kim, D.-H. Kang , K.-H. Kim, S. Seo, K. Heo, C. Shin, H.-Y. Yu, S. Lee, D.-H. Ko, J.-H. Park*
15	<i>(Invited Review)</i> Electronic and Optoelectronic Devices based on Two-dimensional Materials: From Fabrication to Application	<i>Adv. Electron. Mater.</i> (2017)	J. Shim, H.-Y. Park, D.-H. Kang , J. Kim, S.-H. Jo, Y. Park, J.-H. Park*
14	Layer-controlled thinning of black phosphorus by an Ar ion beam	<i>J. Mater. Chem. C</i> (2017)	J.W. Park, S.K. Jang, D.-H. Kang , D.S. Kim, M.H. Jeon, W.O. Lee, K.S. Kim, S.J. Lee, J.-H. Park, K.N. Kim, G.Y. Yeom*
13	Efficient Threshold Voltage Adjustment Technique by Dielectric Capping Effect on MoS ₂ Field Effect Transistor	<i>IEEE Electr. Dev. Lett.</i> (2017)	J. Park, D.-H. Kang , J.-K. Kim, J.-H. Park, H.-Y. Yu*
12	Extremely Large Gate-modulation Effect in Vertical Graphene/WSe ₂ Heterojunction Device	<i>Adv. Mater.</i> (2016)	J. Shim, H. Kim, Y. Shim, D.-H. Kang , H.-Y. Park, S. Jung, Y. Song, W. Jung, J. Lee, S. Park, J. Kim, J. Lee, S. Lee*, Y.-H. Kim*, J.-H. Park*
11	Extremely Low Contact Resistance on Graphene through n-type Doping and One-dimensional Contact Design	<i>Adv. Mater.</i> (2016)	H. Park, W. Jung, D.-H. Kang , J. Jeon, G. Yoo, Y. Park, J. Lee, Y. H. Jang, J. Lee, S. Park, H.-Y. Yu, B. Shin, S. Lee, J.-H. Park*

10	<i>(Frontispiece)</i> High Performance Two-Dimensional Rhenium Disulfide (ReS ₂) Transistors and Photodetectors by Oxygen Plasma Treatment	<i>Adv. Mater.</i> (2016)	J. Shim ⁺ , A. Oh ⁺ , D.-H. Kang , S. Oh, S. Jang, J. Jeon, M. Kim, C. Choi, J. Lee, S. Lee, G. Y. Yeom, Y. J. Song, J.-H. Park*
9	<i>(Inside Front Cover)</i> Broad Detection Range Rhenium Di-selenide (ReSe ₂) Photodetector Enhanced by (3-aminopropyl)triethoxysilane and Triphenylphosphine Treatment	<i>Adv. Mater.</i> (2016)	S.-H. Jo, H.-Y. Park, D.-H. Kang , J. Shim, J. Jeon, S. Choi, M. Kim, J. Lee, Y. Song, S. Lee, J.-H. Park*
8	Phosphorene/Rhenium Disulfide Heterojunction-based Negative Differential Resistance (NDR) Device for Multi-Valued Logic (MVL)	<i>Nat. Commun.</i> (2016)	J. Shim, S. Oh, D.-H. Kang , S.-H. Jo, M. H. Ali, W.-Y. Choi, K. Heo, J. Jeon, S. Lee, M. Kim, Y. J. Song, J.-H. Park*
7	Theoretical and Experimental Investigation of Graphene/High- κ /p-Si Junctions	<i>IEEE Electr. Dev. Lett.</i> (2015)	J. Shim, G. Yoo, D.-H. Kang , W. Jung, Y.-C. Byun, H. Kim, W. T. Kang, W. J. Yu, H.-Y. Yu, Y. Park, J.-H. Park*
6	M-DNA/Transition Metal Dichalcogenide Hybrid Structure-based Bio-FET sensor with Ultra-high Sensitivity	<i>Sci. Rep.</i> (2016)	H.-Y. Park ⁺ , S. R. Dugasani ⁺ , D.-H. Kang , B. Gnareddy, J. Jeon, S. Lee, J. Heo, Y. J. Jeon, S. H. Park*, J.-H. Park*
5	Improvement of the short channel effect in PMOSFETs using cold implantation	<i>Mater. Res. Bull.</i> (2016)	S.H. Lee, S.G. Park, S.H. Jeong, H.C. Jung, I.G. Kim, D.-H. Kang , H.J. Nam, D.J. Kim, K.P. Lee, J.S. Choi, W. Jung, Y. Park, C. Choi, J.-H. Park*
4	Suppression of boron diffusion using carbon co-implantation in DRAM	<i>Mater. Res. Bull.</i> (2016)	S.H. Lee, S.G. Park, S.D. Kim, H.C. Jung, I.G. Kim, D.-H. Kang , D.J. Kim, K.P. Lee, J.S. Choi, J.W. Beak, M. Choi, Y. Park, C. Choi, J.H. Park*
3	Wide-range Controllable n-Doping of Molybdenum Disulfide (MoS ₂) through Thermal and Optical Activation	<i>ACS Nano</i> (2015)	H.-Y. Park, M.-H. Lim, J. Jeon, G. Yoo, D.-H. Kang , S. K. Jang, M. H. Jeon, Y. Lee, J. H. Cho, G. Y. Yeom, W.-S. Jung, J. Lee, S. Park, S. Lee, J.-H. Park*
2	N- and P-type Doping Phenomenon by Artificial DNA and M-DNA on Two-dimensional Transition Metal Dichalcogenides	<i>ACS Nano</i> (2014)	H.-Y. Park, S. R. Dugasani, D.-H. Kang , J. Jeon, S. Lee, Y. Roh* S. Park* J.-H. Park*
1	Germanium p-i-n Avalanche Photodetector fabricated by Point Defect Healing process	<i>Optics Lett.</i> (2014)	J. Shim, D.-H. Kang , G. Yoo, S. Hong, W.-S. Jung, B. J. Kuh, B. Lee, D. Shin, K. Ha, H.-Y. Yu, J. Beak, J.-H. Park*

PATENTS

No.	Title	Country	Inventors
1	Semiconductor device with negative differential transconductance and its manufacturing method	<i>Korea</i> (2017)	Jin-Hong Park, Jaewoo Shim, Dong-Ho Kang
2	Semiconductor device with negative differential transconductance and method of manufacturing the same	<i>USA</i> (2018)	Jin-Hong Park, Jaewoo Shim, Dong-Ho Kang
3	Artificial synapse device and its manufacturing method	<i>Korea</i> (2020)	Jin-Hong Park, Keun Heo, Gwangwe Yoo, Ji-Wan Ku, Dong-Ho Kang
4	Bipolar optoelectronic synaptic device	<i>Korea</i> (2024)	Dong-Ho Kang , Hyejin Yoon, Soeun Park
5	Bipolar optoelectronic synaptic device	<i>USA</i> (2026)	Dong-Ho Kang , Hyejin Yoon, Soeun Park

PRESENTATIONS IN INTERNATIONAL CONFERENCES

No.	Title	Conference	Authors
11	<i>(Invited)</i> Optoelectronic Synaptic Devices for in-Sensor Computing Applications	<i>The 22nd International Symposium on the Physics of Semiconductors and Applications (ISPSA 2026)</i>	<u>D.-H. Kang*</u>
10	<i>(Invited)</i> Ferroelectric phototransistors for in-sensor processing toward all-day facial recognition	<i>10th IEEE Electron Devices Technology and Manufacturing</i>	<u>D.-H. Kang*</u>
9	<i>(Invited)</i> Pseudo-magnetic fields in strained graphene for building optical quantum computing systems	<i>7th IEEE Electron Devices Technology and Manufacturing</i>	<u>D.-H. Kang</u> , H. Sun, M Luo, and D. Nam*
8	<i>(Invited)</i> TMD Photodetector: Performance Enhanced by Chemical Doping Technique	<i>14th Asia-Pacific Conference on Near-field Optics</i>	<u>D.-H. Kang*</u>
7	Study of carrier dynamics in strained graphene with giant pseudo-magnetic fields	<i>Photonics West 2022</i>	<u>D.-H. Kang</u> , H. Sun, M Luo, and D. Nam*

6	Pseudo-magnetic field-induced slow carrier dynamics in periodically strained graphene	2021 Asia-Pacific Workshop on Fundamentals and Applications of Advanced Semiconductor Devices	<u>D.-H. Kang</u> , H. Sun, M Luo, and D. Nam*
5	Transition Metal Dichalcogenides (TMDs) Photodetector: Performance Enhancement by Chemical Doping Technique	7 th Asia-Korea Conference on Science and Technology 2019	<u>D.-H. Kang</u> and D. Nam*
4	Perovskite-Transition Metal Dichalcogenide Hybrid Structure-based Ultra-high Performance Photodetector	20 th International Vacuum Congress	<u>D.-H. Kang</u> , S. R. Pae, J. Shim, J. Jeon, J. W. Leem J. S. Yu, S. Lee, B. Shin*, J.-H. Park*
3	High Performance Solid Polymer Electrolyte Atomic Switching Device using PVP/PMF	2018 MRS Spring	<u>D.-H. Kang</u> and J.-H. Park*
2	High-performance Transition Metal Dichalcogenide Photodetectors Enhanced by Self-Assembled Monolayer Doping	2015 International Forum on Functional Materials	<u>D.-H. Kang</u> ⁺ , M.-S. Kim ⁺ , J. Shim, J. Jeon, H.-Y. Park, W.-S. Jung, H.-Y. Yu, C.-H. Pang, S. Lee, J.-H. Park*
1	Indium (In)- and Tin (Sn)-based Metal Induced Crystallization (MIC) on Amorphous Germanium (α -Ge)	8 th International Conference on Advanced Materials and Devices	<u>D.-H. Kang</u> and J.-H. Park*