

Curriculum Vitae

(2026/07/01)

Moon-Ho Jo

Center for Van der Waals Quantum Solids
Institute for Basic Science (IBS)
IBS-POSTECH Campus
79, Jigok-ro 127beon-gil, Nam-gu, Pohang 37673, Korea

Department of Materials Science and Engineering
Pohang University of Science and Technology
Science Building I
77 Cheongam-ro, Nam-gu, Pohang 37673, Korea

E-mail: mhjo@postech.ac.kr
Telephone: +82-54-279-2158
Webpage: <https://www.ibs.re.kr/vdwqs>, <http://dmpl.postech.ac.kr>

EDUCATION/ACADEMIC TRAINING

Postdoctoral Research Fellow, Harvard University (Chemistry/Physics), The United States, 2001–2004
Ph.D. in Materials Science, University of Cambridge, The United Kingdom, 2001
Visiting Researcher, University of Tokyo, (Electrical Engineering), Japan, 1997–1998
M.S. in Materials Science and Engineering, Yonsei University, Korea, 1997
B.S. in Materials Science and Engineering, Yonsei University, Korea, 1995

RESEARCH INTERESTS

Epitaxial Growth of Low-Dimensional Materials; Electronic and Photonic Device Physics at Nanoscales

POSITIONS

2026–present POSTECH University Professor (with the extended tenure), POSTECH
2025–present Managing Director, IBS Institute for Condensed Matter Science, The IBS-POSTECH Campus
2022–present Director, Center for Van der Waals Quantum Solids, Institute for Basic Science (IBS)
2018–2026 Mueunjae Chair Professor, Pohang University of Science and Technology (POSTECH)
2013–2021 Associate Director, Center for Artificial Low-Dimensional Electronic Systems, IBS
2013–present Professor, Department of Materials Science and Engineering, POSTECH
2012–2013 Associate Professor, Department of Materials Science and Engineering, Yonsei University
2011–2018 Se-Ah Young Chair Professor, POSTECH
2008–2012 Associate Professor, Department of Materials Science and Engineering, POSTECH
2004–2008 Assistant Professor, Department of Materials Science and Engineering, POSTECH

DISTINCTIONS (FOR ACADEMICS AND RESEARCH)

2026 POSTECH University Professor (with the extended tenure), POSTECH
2025 ENGE Award, The Korean Institute of Metals and Materials
2017 LS Academic Award, The Korean Institute of Metals and Materials
2016 Associate Fellow, The Korea Academy of Science and Technology
1998–2001 Fellow of Cambridge Overseas Society
1997–1998 Japanese Government Scholarship
1997 Presidential Thesis Awards, Yonsei University
1996–1997 Seo-Am Academic Foundation Scholarship Award

OTHER SERVICE AND ACTIVITIES

Editorial Advisory Board, Nano Letters (American Chemical Society) (2023–present)
Selection Committee, Hoam Prize, Engineering (2025, 2026)
Chair, Convergence Materials Science Division, The Korean Institute of Metals and Materials (2013, 2017–2019)
Chair, Nano-Science and Technology Division, The Korean Conference on Semiconductors (2010–2013)
Editorial Board, Journal of Semiconductor Technology and Science (2009–present)
Editorial Board, Electronic Materials Letters (2007–2014)

RECENT KEYNOTE AND PLENARY PRESENTATIONS (*Selective*)

- Plenary, “*Epitaxial lattice defects in van der Waals quantum solids*”, ENGE 2026, Jeju, Korea, Nov. 15-18, 2026.
- Plenary, “*Artificial van der Waals lattice by epitaxy*”, 2D Transition Metal Dichalcogenides, UTown, NUS, Singapore, June 28-July 2, 2026.
- Keynote, “*Epitaxial van der Waals quantum lattice*”, Graphene 2025, San Sebastian, Spain, June 25-28, 2025.
- Plenary, “*Epitaxial molding of atomically thin van der Waals lattice toward new quantum solids*”, Advanced Epitaxy for Freestanding Membranes and 2D Materials 2023, COEX, Seoul, Korea, July 10-12, 2023.
- Keynote, “*Epitaxial texturing of atomically thin van der Waals lattice*”, 2D Transition Metal Dichalcogenides, U of Cambridge, Cambridge, UK, June 26-29, 2023.

COLLABORATORS AND ACADEMIC Advisees

Collaborators	Hyunyoung Choi (Seoul Natl Univ.), Jonghwan Kim (POSTECH), Han Woong Yeom (POSTECH), Jun Sung Kim (POSTECH), Taehwan Kim (POSTECH), Dohun Kim (Seoul Natl Univ.), Hongkun Park (Harvard Univ.), Philip Kim (Harvard Univ.), Hee Cheul Choi (POSTECH), Jae Hoon Park (POSTECH), Si Young Choi (POSTECH), Neil D Mathur (Cambridge Univ.), Chan Ho Yang (KAIST), Jiwoong Park (Univ. of Chicago), Sang-Wook Cheong (Rutgers Univ.), Jongkyu Kim (POSTECH), Jeewan Kim (MIT)
Graduate Advisor	Mark G. Blamire, University of Cambridge
Postdoctoral Advisor	Hongkun Park, Harvard University
Doctoral Dissertation Advisees	Cheol-Joo Kim (Asso. Prof. of Chem. Eng, POSTECH), Jee-Eun Yang (Tech. Staff of SAIT, Samsung), Kibum Kang (Asso. Prof. of Mater. Sci. KAIST), Chul-Ho Lee (Prof. of EE, Seoul Nat'l Univ.), Yongjun Hong (Prof. of SKKU) Hyun-Seung Lee (Tech. Staff of Samsung Electronics), Donghun Lee (Ass. Prof. of Chem. Eng., Kookmin Univ.), Won-Mo Lee (Tech. Staff of Samsung Electronics), Inchan Hwang (Tech. Staff of Samsung Electronics), Ji Ho Sung (Staff Scientist, Argonne Nat'l Lab.), Hoseok Heo (Tech. Staff of SAIT, Samsung), Juho Kim (Tech. Staff of Samsung Electronics), Seung-Young Seo (Tech. Staff of Samsung Electronics), Chang-Soo Lee (Tech. Staff of Samsung Electronics), Gangtae Jin (Ass. Prof. of EE., Gachon Univ.), Heon Su Ahn (Tech. Staff of Samsung Electronics), Gunho Moon (SK Hynix), Seok-Ho Lee (IBS-VdWQS), Cheolhee Han (Samsung Display), and Seok Young Min (IBS-VdWQS)
Master thesis Advisees	Chang-Beom Jin (STX Group), Dong An Kim (POSCO), Yong-Jun Cho (SNU), Ru Ri Lee (SK Innovation), Kyungwook Kim (Samsung Electronics), Hyein Hwang (MPI Hamburg), Saerom Si (UCL), Hocheol Shin (TMAX), Donghwi Kim (SK Hynix), Yewon Lee (SK Hynix)
Postdoctoral Trainees	Sangwan Sim (Asso. Prof. of Hanyang Univ.), Ji Hoon Ahn (Assoc. Prof. of Hanyang Univ.), Seung Woo Song (Staff Scientist, KRISS), Myoung Jae Lee (Principal Scientist, DGIST), Geunhee Lee (Staff Scientist, Argonne Natl Lab), Gil-Sung Kim (Research Prof, Chunbuk Natl Univ.), Yun Sung Woo (Prof. of Dankook Univ.), Sung Kyu Kim (Staff Scientist, NCNT), Cheolmin Park (Postdoc, KAIST), Je-Wook Park (Staff Scientist, Oak Ridge Natl Lab) Soon Young Cha (Asst. Prof. of Sookmyung Women's Univ), Zhepeng Zhang (Asst. Prof. of University of Science and Technology Beijing), Chumki Nayak (Lecturer, Department of Higher Education, Government of West Bengal)
Intern Student Advisees	Kyung-Guk Ryu (Kyung Hee University, School of Medicine), Sungki Lee (Intel), Dongwoo Kim (Cornell Univ.), Hae-Yeon Kim (The Catholic University of Korea, School of Medicine), Hyobin Yoo (Asso. Prof. of Seoul Nat'l Univ.), Minjee Kang (UIUC), Hanbyeol Jung (SK Hynix), Seung-Ae Guk (Yonsei Univ.), Jiafan Yu (Stanford Univ. - Weimo Co), Zhengrong Shang (Stanford Univ. - Apple Co)

RECENT PUBLICATIONS (*Selective*)

1. "Valley-dependent polaronic fine structures controlled by ultrafast pseudomagnetic field in monolayer WSe₂", Yejin Lee*, Swati Chaudhary*, Hyojin Choi, Jinjae Kim, Taeho Kim, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo†, Takashi Oka†, and Hyunyoung Choi†, **Physical Review Letters**, Submitted (2026).
2. "Nonequilibrium Floquet spectroscopy of Landau-quantized Fermi-polarons in a monolayer WSe₂", Hyojin Choi*, Swati Chaudhary*, Yejin Lee, Jinjae Kim, Taeho Kim, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo†, Takashi Oka†, and Hyunyoung Choi† **Physical Review Letters**, Submitted (2026).
3. "Real-space imaging and manipulation of single electrons on a solid surface", Min-Seok Kim, Dong Cheol Lim, Woo-Yong Kim, Sang Yong Song, Heejeong Koo, Moon-Ho Jo, Young Woo Choi*, Yeongkwan Kim*, Jungpil Seo*, Sung Wng Kim*, **Science**, *In Revision*, (2026).
4. "Modular van der Waals metal-oxide-semiconductor field-effect transistors via layer-by-layer chalcogen substitutions", Seok Young Min†, Hyunje Cho†, Suk-Ho Lee, Jaeho Choi, Taeho Kim, Jong Yun Choi, Heewon Park, Junsoo Yoon, TaeJoon Mo, Chumki Nayak, Gi-Yeop Kim, Sung-Hyuk Her, Chul-Ho Lee, Yong-Sung Kim, Si-Young Choi, Cheol-Joo Kim and Moon-Ho Jo*, **Science**, *In Press* (2026).
5. "Highly efficient deep-ultraviolet luminescence in hBN moiré quantum wells", Chengyun Hong†, Fangzhou Zhao†, Su-Beom Song, Sangho Yoon, Seongjoon Jeon, M. Ajmal Khan, Dong-hwan Yang, Wanhee Lee, Sera Yang, Hyungsop Jo, Sumin Lee, Seokyoung Min, Kenji Watanabe, Takashi Taniguchi, Changsoon Cho, Si-Young Choi, Hideki Hirayama, Lede Xian, Moon-Ho Jo*, Angel Rubio* and Jonghwan Kim*, **Science**, 391 (6791), eaeb2095 (2026).
6. "Single-crystalline monolayer semiconductors with coherent quantum transport by vicinal van der Waals epitaxy", Gunho Moon,† Suk-Ho Lee,† Hyunje Cho,† Heewon Park, Heonsu AhnChang-Won Choi, Sera Yang, Seung-Hyun Shin, Jinjae Kim, Jong Yun Choi, Seok-Young Min, Sumin Lee, Hyunjin Jung, Jaeyoung Kim, Jewook Park, Han Woong Yeom, Gil-Ho Lee, Myungchul Oh, Jong-Hoon Kang, Hyunyoung Choi, Cheol-Joo Kim, Jonghwan Kim, Si-Young Choi and Moon-Ho Jo*, **Nature Electronics**, 8, 1181 (2025).
7. "Epitaxially defined Luttinger liquid on a MoS₂ bicrystal", Bingchen Deng, Heonsu Ahn, Jue Wang, Gunho Moon, Chao Lei, Giovanni Scuri, Jiho Sung, Elise Brutschea, Kenji Watanabe, Takashi Taniguchi, Fan Zhang, Moon-Ho Jo†, and Hongkun Park†, **Physical Review Letters**, 134, 046391 (2025).
8. "Ultrafast Floquet engineering of Fermi-polaron resonances in charge-tunable monolayer WSe₂ devices", Hyojin Choi, Jinjae Kim, Jiwon Park, Jekwan Lee, Wonhyeok Heo, Jaehyeon Kwon, Sukho Lee, Ahmed Faisal, Kenji Watanabe, Takashi Taniguchi, Zhipei Sun, Moon-Ho Jo*, and Hyunyoung Choi*, **Nature Communications**, 15, 10852 (2024).
9. "Integrated 1D epitaxial mirror twin boundaries for ultrascaled 2D MoS₂ field-effect transistors", Heonsu Ahn,† Gunho Moon,† Hang-gyo Jung, Bingchen Deng, Dong-Hwan Yang, Chang-Soo Lee, Cheolhee Han, Hyunje Cho, Youngki Yeo, Cheol-Joo Kim, Chan-Ho Yang, Si-Young Choi, Hongkun Park, Jongwook Jeon, Jin-Hong Park, and Moon-Ho Jo*, **Nature Nanotechnology**, 19, 955 (2024).
10. "Spinful hinge states in the higher-order topological insulators WTe₂", Jekwan Lee, Jaehyeon Kwon, Eunho Lee, Jiwon Park, Soonyoung Cha, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo* and Hyunyoung Choi*, **Nature Communications**, 14, 1801 (2023).
11. "Non-epitaxial single-crystalline 2D material growth by geometrical confinement", Ki Seok Kim, Doyoon Lee, Celesta Chang, Seunghwan Seo, Yaoqiao Hu, Soonyoung Cha, Hyunseok Kim, Jiho Shin, Ju-Hee Lee, Sangho Lee, Justin Kim, Ki Hyun Kim, Jun Min Suh, Yuan Meng, Bo-In Park, Jung-Hoon Lee, Hyung-Sang Park, Hyun Kum, Moon-Ho Jo, Geun Young Yeom, Kyeongjae Cho, Jin-Hong Park, Sang-Hoon Bae and Jeehwan Kim, **Nature**, 614, 88 (2023).
12. "Gate-tunable quantum pathways of high harmonic generation in graphene", Soonyoung Cha, Minjeong Kim, Youngjae Kim, Shinyoung Choi, Sejong Kang, Hoon Kim, Sangho Yoon, Gunho Moon, Taeho Kim, Ye Won Lee, Gil Young Cho, Moon Jeong Park, Cheol-Joo Kim, B. J. Kim, Jae Dong Lee, Moon-Ho Jo and Jonghwan Kim, **Nature Communications**, 13, 6630 (2022).
13. "Deep-ultraviolet electroluminescence and photocurrent generation in graphene/hBN/graphene heterostructures", Su-Beom Song, Seung-Young Seo, Soonyoung Cha, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo*, Jonghwan Kim*, **Nature Communications**, 12, 7134 (2021).

14. "Heteroepitaxial van der Waals semiconductor superlattices", Gangtae Jin,[†] Chang-Soo Lee,[†] Odongo F. N. Okello, Suk-Ho Lee, Min Yeong Park, Soonyoung Cha, Seung-Young Seo, Gunho Moon, Seok Young Min, Dong Hwan Yang, Cheolhee Han, Hyungju Ahn, Jekwan Lee, Hyunyong Choi, Jonghwan Kim, Si-Young Choi, and Moon-Ho Jo*, **Nature Nanotechnology**, 16, 1092 (2021).
15. "Ultrafast non-excitonic valley Hall effect in MoS₂/WTe₂ heterobilayers", Jekwan Lee, Wonhyoek Heo, Myungjun Cha, Kenji Watanabe, Takashi Taniguchi, Jehyun Kim, Dohun Kim, Soonyoung Cha, Moon-Ho Jo*, and Hyunyong Choi*, **Nature Communications**, 12, 1635 (2021).
16. "Reconfigurable photo-induced doping of two-dimensional van der Waals semiconductors using different photon energy", Seung-Young Seo, Gunho Moon, Odongo Francis Ngome Okello, Min Yeong Park, Cheolhee Han, Soonyoung Cha, Hyunyong Choi, Han Woong Yeom, Si-Young Choi, Jewook Park, and Moon-Ho Jo*, **Nature Electronics**, 4, 38 (2021).
17. "Nearly room temperature ferromagnetism in a magnetic-metal-rich van der Waals metal", Junho Seo, Duck Young Kim, Eun Su An, Kyoo Kim, Gi-Yeop Kim, Soo-Yoon Hwang, Dong Wook Kim, Bo Gyu Jang, Heejung Kim, Gyeongsik Eom, Seung Young Seo, Roland Stania, Matthias Muntwiler, Jinwon Lee, Kenji Watanabe, Takashi Taniguchi, Youn Jung Jo, Jieun Lee, Byung Il Min, Moon Ho Jo, Han Woong Yeom, Si-Young Choi, Ji Hoon Shim, and Jun Sung Kim, **Science Advances**, 6, aay8912 (2020).
18. "Atomically thin three-dimensional van der Waals membrane semiconductors by wafer scale growth", Gangtae Jin, Chang-Soo Lee, Xing Liao, Juho Kim, Zhen Wang, Odongo Francis Ngome Okello, Bumsu Park, Jaehyun Park, Cheolhee Han, Hoseok Heo, Jonghwan Kim, Sang Ho Oh, Si-Young Choi, Hongkun Park and Moon-Ho Jo*, **Science Advances**, 5, eaaw3180 (2019).
19. "Writing monolithic integrated circuits on a two-dimensional semiconductor with a scanning light probe", Seung-Young Seo, Jaehyun Park, Jewook Park, Kyung Song, Soonyoung Cha, Sangwan Sim, Si-Young Choi, Han Woong Yeom, Hyunyong Choi, and Moon-Ho Jo*, **Nature Electronics**, 1, 512 (2018).
20. "Generation, transport, and detection of valley-locked spin photocurrent in WSe₂-graphene–Bi₂Se₃ heterostructures", Soonyoung Cha, Minji Noh, Je-Hyun Kim, Jangyup Son, Hyemin Bae, Doeon Lee, Hoil Kim, Jekwan Lee, Hoseung Shin, Sangwan Sim, Seunghoon Yang, Chul-Ho Lee, Moon-Ho Jo, Jun Sung Kim, Dohun Kim, and Hyunyong Choi*, **Nature Nanotechnology**, 13, 910 (2018).
21. "Ultrafast quantum beats of anisotropic excitons in atomically thin ReS₂", Sangwan Sim, Doeon Lee, Taeyoung Kim, Soonyoung Cha, Ji Ho Sung, Sungjun Cho, Wooyoung Shim, Moon-Ho Jo* and Hyunyong Choi*, **Nature Communications**, 9, 351 (2018). (*co-Corresponding authors)
22. "Coplanar semiconductor-metal circuitry defined on MoTe₂ few-layer polymorphs via heteroepitaxy", Ji Ho Sung[†], Hoseok Heo[†], Saerom Si[†], Hyeong Rae Noh, Yong Hyeon Kim, Kyung Song, Juho Kim, Chang-Soo Lee, Seung-Young Seo, Hyoung Kug Kim, Han Woong Yeom, Jun Sung Kim, Si-Young Choi, Tae-Hwan Kim, and Moon-Ho Jo*, **Nature Nanotechnology**, 12, 1064 (2017).
23. "Selectively tunable optical Stark effect of anisotropic excitons in atomically thin ReS₂", Sangwan Sim, Doeon Lee, Minji Noh, Soonyoung Cha, Chan Ho Soh, Ji Ho Sung, Moon-Ho Jo*, and Hyunyong Choi*, **Nature Communications**, 7, 13569 (2016).
24. "Thermoelectric materials by utilizing two-dimensional materials with negative correlation between electrical and thermal conductivity", Myoung-Jae Lee, Ji-Hoon Ahn, Ji Ho Sung, Hoseok Heo, Seong Gi Jeon, Woo Lee, Jae Yong Song, Ki-Ha Hong, Byeongdae Choi, Sung-Hoon Lee and Moon-Ho Jo*, **Nature Communications**, 7, 12011 (2016).
25. "1s intraexcitonic dynamics in monolayer MoS₂ probed by ultrafast mid-infrared spectroscopy", Soonyoung Cha, Ji Ho Sung, Sangwan Sim, Jun Park, Hoseok Heo, Moon-Ho Jo*, and Hyunyong Choi* **Nature Communications**, 7, 10768 (2016).
26. "Ultra-high modulation depth exceeding 2,400% in the optically-controlled topological surface plasmons", Sangwan Sim, Houk Jang, Nikesh Koirala, Matthew Brahlek, Jisoo Moon, Ji Ho Sung, Jun Park, Soonyoung Cha, Seongshik Oh, Moon-Ho Jo, Jong-Hyun Ahn, and Hyunyong Choi, **Nature Communications**, 6, 8814 (2015).
27. "Enhancement of the anisotropic photocurrent in ferroelectric oxides by strain gradients", Kanghyun Chu, Byung-Kweon Jang, Ji Ho Sung, Yoon Ah Shin, Eui-Sup Lee, Kyung Song, Jin Hong Lee, Chang-Su Woo, Seung Jin Kim, Si-Young Choi, Tae Yeong Koo, Yong-Hyun Kim, Sang-Ho Oh, Moon-Ho Jo, and Chan-Ho Yang, **Nature Nanotechnology**, 10, 972 (2015).

28. "Interlayer orientation dependent light absorption and emission in monolayer semiconductor stacks", Hoseok Heo[†], Ji Ho Sung[†], Soonyoung Cha, Bo-Gyu Jang, Gangtae Jin, Donghun Lee, Ji-Hoon Ahn, Myoung Jae Lee, Ji Hoon Shim, Hyunyong Choi and Moon-Ho Jo*, **Nature Communications**, 6, 7372 (2015).
29. "Near-field electrical detection of optical plasmons and single-plasmon sources", Abram L. Falk, Frank H. L. Koppens, Chun Yu, Kibum Kang, Nathalie de Leon Snapp, Alexey V. Akimov, Moon-Ho Jo, Mikhail D. Lukin, and Hongkun Park, **Nature Physics**, 5, 475 (2009).

FULL PUBLICATIONS LIST

1. "Valley-dependent polaronic fine structures controlled by ultrafast pseudomagnetic field in monolayer WSe₂", Yejin Lee*, Swati Chaudhary*, Hyojin Choi, Jinjae Kim, Taeho Kim, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo†, Takashi Oka†, and Hyunyoung Choi†, **Physical Review Letters**, Submitted (2026).
2. "Van der Waals stabilization of metastable α -Sb on MoS₂ and emergence of a dispersive interfacial band", Woo-Ju Lee†, Yo-Sub Choi†, TaeJoon Mo, Chan-Cuk Hwang, Yong-Sung Kim*, Moon-Ho Jo* and Cheol-Joo Kim*, **ACS Nano**, Submitted (2026).
3. "Nonequilibrium Floquet spectroscopy of Landau-quantized Fermi-polarons in a monolayer WSe₂", Hyojin Choi*, Swati Chaudhary*, Yejin Lee, Jinjae Kim, Taeho Kim, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo†, Takashi Oka†, and Hyunyoung Choi† **Physical Review Letters**, Submitted (2026).
4. "Real-space imaging and manipulation of single electrons on a solid surface", Min-Seok Kim, Dong Cheol Lim, Woo-Yong Kim, Sang Yong Song, Heejeong Koo, Moon-Ho Jo, Young Woo Choi*, Yeongkwan Kim*, Jungpil Seo*, Sung Wng Kim*, **Science**, In Revision, (2026).
5. "Modular van der Waals metal-oxide-semiconductor field-effect transistors via layer-by-layer chalcogen substitutions", Seok Young Min†, Hyunje Cho†, Suk-Ho Lee, Jaeho Choi, Taeho Kim, Jong Yun Choi, Heewon Park, Junsoo Yoon, TaeJoon Mo, Chumki Nayak, Gi-Yeop Kim, Sung-Hyuk Her, Chul-Ho Lee, Yong-Sung Kim, Si-Young Choi, Cheol-Joo Kim and Moon-Ho Jo*, **Science**, In Press (2026).
6. "Light-driven nonequilibrium excitonic Mott phase in WSe₂/WS₂ moiré lattices", Jinjae Kim, Taeho Kim, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo*, and Hyunyoung Choi*, **Physical Review Letters**, In Revision, (2026).
7. "Active control of anisotropic van der Waals optics", Sangwan Sim, Moon-Ho Jo* and Hyunyoung Choi*, **Nano Letters**, 26,10053 (2026).
8. "Ultrafast moiré-resolved spectroscopy of interlayer exciton thermalization in twisted WSe₂/WS₂ heterobilayers*", Jinjae Kim, Claudia Gollner, Yannick Pleimling, Sumin Lee, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo, Tony Heinz*, and Hyunyoung Choi*, **Physical Review Letters**, 136, 166902 (2026).
9. "Topotactic conversion to high-valent metastable 2D semimetallic W₂N₃ via lateral anion exchange of bilayer WS₂", Jeong-Hwan Park, Je Oh Choi, Hyo Gyeong Shin, Sumin Lee, Jae Hyeok Huh, Seong Ju Hwang, Junhyeong Lee; Donghwa Lee, Moon-Ho Jo* and Jong-Hoon Kang*, **ACS Nano**, 20, 12700 (2026).
10. "Highly efficient deep-ultraviolet luminescence in hBN moiré quantum wells", Chengyun Hong†, Fangzhou Zhao†, Su-Beom Song, Sangho Yoon, Seongjoon Jeon, M. Ajmal Khan, Dong-hwan Yang, Wanhee Lee, Sera Yang, Hyungsup Jo, Sumin Lee, Seokyoung Min, Kenji Watanabe, Takashi Taniguchi, Changsoon Cho, Si-Young Choi, Hideki Hirayama, Lede Xian, Moon-Ho Jo*, Angel Rubio* and Jonghwan Kim*, **Science**, 391 (6791), eaeb2095 (2026).
11. "Highly radiative emission of room-temperature localized excitons enabled by charge-neutralized 0D quantum wells in 2D semiconductors", Taeyoung Moon, Hyeongwoo Lee, Jihae Lee, Dong Kyo Oh, Soo Ho Choi, Yeonjeong Koo, Hyunje Cho, Moon-Ho Jo, Ki Kang Kim, Junsuk Rho, Yung Doug Suh and Kyoung-Duck Park, **Science Advances**, 12 eady2186 (2026).
12. "Gate-controlled terahertz modulation in graphene-integrated Bi₂Se₃ microstructure", Chihun In, Deepti Jain, Sumin Lee, Seongshik Oh, Moon-Ho Jo* and Hyunyoung Choi*, **Nano Letters**, 25, 17733 (2025).
13. "Terahertz non-Drude conductivity of mirror twin boundary networks on monolayer MoS₂ bicrystals", Cheolhee Han†, Minji Noh†, Heewon Park, Hyunje Cho, Gunho Moon, Seok Young Min, Sumin Lee, Hwanjung Chang, Hyunyoung Choi* and Moon-Ho Jo*, **Nano Letters**, 25, 14473 (2025).
14. "Quantum interference and occupation control in high harmonic generation from monolayer WS₂", Minjeong Kim†, Taeho Kim†, Anna Galler†, Dasol Kim, Alexis Chacon, Kenji Watanabe, Takashi Taniguchi, BJ Kim, Sanghoon Chae, Moon-Ho Jo, Angel Rubio*, Ofer Neufeld*, Jonghwan Kim*, **Nature Communications**, 16, 9825 (2025)
15. "Single-crystalline monolayer semiconductors with coherent quantum transport by vicinal van der Waals epitaxy", Gunho Moon,† Suk-Ho Lee,† Hyunje Cho,† Heewon Park, Heonsu AhnChang-Won Choi, Sera Yang, Seung-Hyun Shin, Jinjae Kim, Jong Yun Choi, Seok-Young Min, Sumin Lee, Hyunjin Jung, Jaeyoung Kim, Jewook Park, Han Woong

Yeom, Gil-Ho Lee, Myungchul Oh, Jong-Hoon Kang, Hyunyoung Choi, Cheol-Joo Kim, Jonghwan Kim, Si-Young Choi and Moon-Ho Jo*, **Nature Electronics**, 8, 1181 (2025).

16. "Electronics and photonics-related research and education at POSTECH", Junsuk Rho*, Moon-Ho Jo*, Yong-Young Noh*, Unyong Jeong*, Gil-Ho Lee*, **Nature Reviews Electrical Engineering**, 2, 799 (2025).
17. "Interstitally bridged van der Waals interface enabling stacking-fault-free, layer-by-layer epitaxy", GunWoo Yoo, TaeJoon Mo, Yong-Sung Kim*, Chang-Won Choi, Gunho Moon, Sumin Lee, Chan-Cuk Hwang, Woo-Ju Lee, Min-Yeong Choi, Jongyun Choi, Si-Young Choi*, Moon-Ho Jo* and Cheol-Joo Kim*, **ACS Nano**, 19, 31, 28491 (2025).
18. "Exciton dynamics in marginally twisted WSe₂ homobilayer: role of interlayer coupling, phonons, and intervalley scattering", Hansol Kim, Gyusu Lee, Jinjae Kim, Jiwon Park, Andrew S. Kim, Jongyun Choi, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo, and Hyunyoung Choi, **Phys. Rev. B**, 112, 104305 (2025).
19. "Epitaxially defined Luttinger liquid on a MoS₂ bicrystal", Bingchen Deng, Heonsu Ahn, Jue Wang, Gunho Moon, Chao Lei, Giovanni Scuri, Jiho Sung, Elise Brutschea, Kenji Watanabe, Takashi Taniguchi, Fan Zhang, Moon-Ho Jo*, and Hongkun Park*, **Physical Review Letters**, 134, 046391 (2025).
20. "Controlled growth of polar altermagnets via chemical vapor transport", Hiraka Haruhiro, Raktim Datta, Poonam Yadav, Anzar Ali, Suheon Lee, Matthias Gutmann, Duhee Yoon, Dirk Wulferding, Xianghan Xu, Moon-Ho Jo, Sang-Wook Cheong, Sungkyun Choi, **Cryst. Growth Des**, 25, 4991 (2025).
21. "Ultrafast Floquet engineering of Fermi-polaron resonances in charge-tunable monolayer WSe₂ devices", Hyojin Choi, Jinjae Kim, Jiwon Park, Jekwan Lee, Wonhyeok Heo, Jaehyeon Kwon, Sukho Lee, Ahmed Faisal, Kenji Watanabe, Takashi Taniguchi, Zhipei Sun, Moon-Ho Jo*, and Hyunyoung Choi*, **Nature Communications**, 15, 10852 (2024).
22. "Ultrafast control over stiffening and softening of coherent interlayer coupling in strongly-correlated WSe₂/WS₂ heterobilayers", Jinjae Kim, Jeonghyeon Suh, Sukho Lee, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo, Hongki Min, and Hyunyoung Choi*, **Nano Letters**, 24, 16391 (2024).
23. "Narrowband electroluminescence from isolated colour centres in hexagonal boron nitride", Gyuna Park, Ivan Zhiguli, Hoyoung Jung, Jake Horder, Karin Yamamura, Yerin Han, Hyunje Cho, Hyeon-Woo Jeong, Kenji Watanabe, Takashi Taniguchi, Myungchul Oh, Gil-Ho Lee, Moon-Ho Jo, Igor Aharonovich*, Jonghwan Kim*, **Nano Letters**, 24, 15268, (2024).
24. "Tailoring interlayer coupling in few-layer MoS₂ with stacking configuration", Jong Hun Kim, Kyung-Hwan Jin, Yeonjoon Jung, Gwan-Hyoung Lee, Moon-Ho Jo, Arthur Baddorf, An-Ping Li, Jewook Park, **ACS Applied Nano Materials**, 7, 17214 (2024).
25. "Integrated 1D epitaxial mirror twin boundaries for ultrascaled 2D MoS₂ field-effect transistors", Heonsu Ahn,[†] Gunho Moon,[†] Hang-gyo Jung, Bingchen Deng, Dong-Hwan Yang, Chang-Soo Lee, Cheolhee Han, Hyunje Cho, Youngki Yeo, Cheol-Joo Kim, Chan-Ho Yang, Si-Young Choi, Hongkun Park, Jongwook Jeon, Jin-Hong Park, and Moon-Ho Jo, **Nature Nanotechnology**, 19, 955 (2024).
26. "Correlation-driven non-equilibrium exciton site transition in a WSe₂/WS₂ moiré supercell", Jinjae Kim,[†] Jiwon Park,[†] Hyojin Choi, Taeho Kim, Soonyoung Cha, Yewon Lee, Kenji Watanabe, Takashi Taniguchi, Jonghwan Kim, Moon-Ho Jo, and Hyunyoung Choi, **Nature Communications**, 15, 3312, (2024).
27. "Observation of ultrafast electrons in pendant-embedded conducting two-dimensional polymers", Yeonsang Lee, Minhyuk Choi, Ina Park, In-Chul Hwang, Sk. Atiur Rahaman, Hee Jun Shin, Pritam Giri, Moon-Ho Jo, Kangkyun Baek, Ilha Hwang, Ji Hoon Shim, Jun Sung Kim and Kimoon Kim, **Chem**, 10, 1160 (2024).
28. "Atomistic probing of defect-engineered 2H-MoTe₂ monolayers", Odongo Okello, Dong-Hwan Yang, Seung-Young Seo, Jewook Park, Gunho Moon, Dongwon Shin, Yu-Seong Chu, Sejung Yang, Teruyasu Mizoguchi, Moon-Ho Jo[†] and Si-Young Choi[†], **ACS Nano**, 18, 6927 (2024).
29. "Full automation of point defect detection in transition metal dichalcogenides through dual mode deep learning algorithm", Dong-Hwan Yang, Yu-Seong Chu, Odongo Francis Ngome Okello, Seung-Young Seo, Gunho Moon, Kwang Ho Kim, Moon-Ho Jo, Dongwon Shin, Sejung Yang and Si-Young Choi, **Materials Horizons**, 11, 747 (2024).
30. "Dephasing dynamics accessed by high harmonic generation: determination of electron-hole decoherence of Dirac fermions", Youngjae Kim, Min Jeong Kim, Soonyoung Cha, Shinyoung Choi, Cheol-Joo Kim, B. J. Kim, Moon-Ho Jo, Jonghwan Kim[†], Jae Dong Lee[†], **Nano Letters**, 24, 1277 (2024).

31. "Experimental data platform for 2D materials from synthesis to physical properties", Jin-Hoon Yang, Habin Kang, Hyuk Jin Kim, Taeho Kim, Heonsu Ahn, Tae Gyu Rhee, Yeong Gwang Khim, Byoung Ki Choi, Moon-Ho Jo, Hyunju Chang, Jonghwan Kim*, Young Jun Chang* and Yea-Lee Lee* , **Digital Discovery**, 3, 573 (2024).
32. "Spinful hinge states in the higher-order topological insulators WTe₂", Jekwan Lee, Jaehyeon Kwon, Eunho Lee, Jiwon Park, Soonyoung Cha, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo and Hyunyoung Choi, **Nature Communications**, 14, 1801 (2023).
33. "Thermodynamically driven tilt grain boundaries of monolayer crystals using catalytic liquid alloys", Min-Yeong Choi, Chang-Won Choi, Dong-Yeong Kim, Moon-Ho Jo, Yong-Sung Kim, Si-Young Choi, and Cheol-Joo Kim, **Nano Letters**, 23, 4516 (2023).
34. "Non-epitaxial single-crystalline 2D material growth by geometrical confinement", Ki Seok Kim, Doyoon Lee, Celesta Chang, Seunghwan Seo, Yaoqiao Hu, Soonyoung Cha, Hyunseok Kim, Jiho Shin, Ju-Hee Lee, Sangho Lee, Justin Kim, Ki Hyun Kim, Jun Min Suh, Yuan Meng, Bo-In Park, Jung-Hoon Lee, Hyung-Sang Park, Hyun Kum, Moon-Ho Jo, Geun Young Yeom, Kyeongjae Cho, Jin-Hong Park, Sang-Hoon Bae and Jeehwan Kim, **Nature**, 614, 88 (2023).
35. "Atomically thin synapse networks on van der Waals photo-memtransistors", Gunho Moon, Seok Young Min, Cheolhee Han, Suk-Ho Lee, Heonsu Ahn, Seung-Young Seo, Feng Ding, Seyoung Kim and Moon-Ho Jo, **Advanced Materials**, 35, 2203481 (2023).
36. "Gate-tunable quantum pathways of high harmonic generation in graphene", Soonyoung Cha, Minjeong Kim, Youngjae Kim, Shinyoung Choi, Sejong Kang, Hoon Kim, Sangho Yoon, Gunho Moon, Taeho Kim, Ye Won Lee, Gil Young Cho, Moon Jeong Park, Cheol-Joo Kim, B. J. Kim, JaeDong Lee, Moon-Ho Jo and Jonghwan Kim, **Nature Communications**, 13, 6630 (2022).
37. "Photoluminescence path bifurcations by spin flip in two-dimensional CrPS₄", Suhyeon Kim, Sangho Yoon, Hyobin Ahn, Gangtae Jin, Hyesun Kim, Moon-Ho Jo, Changgu Lee, Jonghwan Kim and Sunmin Ryu, **ACS Nano** 16, 16385 (2022).
38. "Deep-ultraviolet electroluminescence and photocurrent generation in graphene/hBN/graphene heterostructures", Su-Beom Song, Seung-Young Seo, Soonyoung Cha, Kenji Watanabe, Takashi Taniguchi, Moon-Ho Jo, Jonghwan Kim, **Nature Communications**, 12, 7134 (2021).
39. "Heteroepitaxial van der Waals semiconductor superlattices", Gangtae Jin,[†] Chang-Soo Lee,[†] Odongo F. N. Okello, Suk-Ho Lee, Min Yeong Park, Soonyoung Cha, Seung-Young Seo, Gunho Moon, Seok Young Min, Dong Hwan Yang, Cheolhee Han, Hyungju Ahn, Jekwan Lee, Hyunyoung Choi, Jonghwan Kim, Si-Young Choi, and Moon-Ho Jo, **Nature Nanotechnology**, 16, 1092 (2021).
40. (*Invited review*) "Identification of point defects of atomically thin transition-metal dichalcogenide semiconductors as active dopants", Seung-Young Seo, Dong-Hwan Yang, Odongo F. N. Okello, Soonyoung Cha, Gunho Moon, Min Yeong Park, Si-Young Choi and Moon-Ho Jo, **Nano Letters**, 21, 3341 (2021).
41. "Ultrafast non-excitonic valley Hall effect in MoS₂/WTe₂ heterobilayers", Jekwan Lee,[†] Wonhyeok Heo,[†] Myungjun Cha, Kenji Watanabe, Takashi Taniguchi, Jehyun Kim, Dohun Kim, Soonyoung Cha, Moon-Ho Jo, and Hyunyoung Choi, **Nature Communications**, 12, 1635 (2021). ([†]Equal contributors)
42. "Electrical control of anisotropic and tightly bound excitons in bilayer phosphorene", Sangho Yoon, Taeho Kim, Seung-Young Seo, Seung-Hyun Shin, Su-Beom Song, Boknam Chae, B. J. Kim, Kenji Watanabe, Takashi Taniguchi, Gil-Ho Lee, Moon-Ho Jo, Diana Y. Qiu, Jonghwan Kim, **Physical Review B**, 103, L041407 (2021).
43. "Light absorption and emission by many-body trions in the type-I van der Waals heterostructures", Hyemin. Bae, S. Kim, S. Lee, O. Karni, A. O'Beirne, Sangwan Sim, Wonhyeok Heo, E. Barré, Soonyoung Cha, Moon-Ho Jo, T. F. Heinz[†], and Hyunyoung Choi[†], **ACS Photonics**, 8, 1972, (2021).
44. "Reconfigurable photo-induced doping of two-dimensional van der Waals semiconductors using different photon energy", Seung-Young Seo, Gunho Moon, Odongo Francis Ngome Okello, Min Yeong Park, Cheolhee Han, Soonyoung Cha, Hyunyoung Choi, Han Woong Yeom, Si-Young Choi, Jewook Park, and Moon-Ho Jo, **Nature Electronics**, 4, 38 (2021).
45. "Sub band-gap photoresponse by hot electron injections in Au-nanorod decorated van der Waals semiconductor monolayers", Juho Kim, Gangtae Jin, Min Yeong Park, Soonyoung Cha, Seung-Young Seo, Yoon-Jong Moon and Moon-Ho Jo, **Journal of the Korean Physical Society**, 77, 127 (2020).

46. "Programmed band-gap modulation within van der Waals semiconductor monolayers by metalorganic vapor-phase epitaxy", Chang-Soo Lee,[†] Gangtae Jin,[†] Cheolhee Han, Juho Kim, Seung-Young Seo, Min Yeong Park, Heon Su An, Suk Ho Lee, Soonyoung Cha and Moon-Ho Jo, **Chemistry of Materials**, 32, 5084 (2020). ([†]Equal contributors)
47. "Role of weak interlayer coupling in ultrafast exciton-exciton annihilation in two-dimensional rhenium dichalcogenides", Sangwan Sim, Doeon Lee, Jekwan Lee, Myungjun Cha, Soonyoung Cha, Wonhyeok Heo, Sungjun Cho, Wooyoung Shim, Kyusang Lee, Jinkyong Yoo, Rohit ; Prasankumar, Hyunyong Choi and Moon-Ho Jo, **Physical Review B**, 101, 174309 (2020).
48. "Picosecond competing dynamics of semiconducting-metallic phase transition in the topological insulator Bi₂Se₃", Seungmin Lee, Sangwan Sim, Jisoo Moon, Chihun In, Soonyoung Cha, Jekwan Lee, Minji Noh, Hoseung Shin, Suhyun Park, Woonsun Jang, Myungwoo Son, Hyunseung Jung, Seung Young Seo, Jehyun Kim, Aloysius Soon, Moon-Ho Ham, Hojin Lee, Moon-Ho Jo, Dohun Kim, Seongshik Oh, and Hyunyong Choi, **ACS Photonics**, 7, 759 (2020).
49. "Solution-processable, crystalline π -conjugated two-dimensional polymers with high charge carrier mobility", Samik Jhulki, Jeehong Kim, In-Chul Hwang, Golam Haider, Jiyong Park, Ji Young Park, Yeonsang Lee, Wooseup Hwang, Ajaz Dar, Barun Dhara, Sang Hoon Lee, Juho Kim, Jin Young Koo, Moon Ho Jo, Chan-Cuk Hwang, Young Hwa Jung, Youngsin Park, Monika Kataria, Yang-Fang Chen, Seung-Hoon Jhi, Mu-Hyun Baik, Kangkyun Baek, and Kimoon Kim, **Chem**, 6, 2035 (2020).
50. "Nearly room temperature ferromagnetism in a magnetic-metal-rich van der Waals metal", Junho Seo, Duck Young Kim, Eun Su An, Kyoo Kim, Gi-Yeop Kim, Soo-Yoon Hwang, Dong Wook Kim, Bo Gyu Jang, Heejung Kim, Gyeongsik Eom, Seung Young Seo, Roland Stania, Matthias Muntwiler, Jinwon Lee, Kenji Watanabe, Takashi Taniguchi, Youn Jung Jo, Jieun Lee, Byung Il Min, Moon Ho Jo, Han Woong Yeom, Si-Young Choi, Ji Hoon Shim, and Jun Sung Kim, **Science Advances**, 6, aay8912 (2020).
51. "Light polarization-controlled conversion of ultrafast coherent-incoherent exciton dynamics in few-layer ReS₂", Sangwan Sim, Doeon Lee, Jekwan Lee, Hyemin Bae, Minji Noh, Soonyoung Cha, Moon-Ho Jo, Kyusang Lee, and Hyunyong Choi, **Nano Letters**, 19, 7464 (2019).
52. "Atomically thin three-dimensional van der Waals membrane semiconductors by wafer scale growth", Gangtae Jin[†], Chang-Soo Lee[†], Xing Liao, Juho Kim, Zhen Wang, Odongo Francis Ngome Okello, Bumsu Park, Jaehyun Park, Cheolhee Han, Hoseok Heo, Jonghwan Kim, Sang Ho Oh, Si-Young Choi, Hongkun Park and Moon-Ho Jo, **Science Advances**, 5, eaaw3180 (2019). ([†]Equal contributors)
53. "Electroluminescence from h-BN by using Al₂O₃/h-BN multiple heterostructure", Seung Hee Lee, Hokyeong Jeong, Dong Yeong Kim, Seung-Young Seo, Cheolhee Han, Odongo Francis Ngome Okello, Jen-lu Lo, Yu-Chain Peng, Chan-Hyoung Oh, Gyeong Won Lee, Jong-In Shim, Bing-Ming Cheng, Kyung Song, Si-Young Choi, Moon-Ho Jo, and Jong Kyu Kim, **Optics Express**, 27, 19692 (2019).
54. "Crossover between photochemical and photothermal oxidations of atomically thin magnetic semiconductor CrPS₄", Suhyeon Kim, Jinhwan Lee, Gangtae Jin, Moon-Ho Jo, Changgu Lee, and Sunmin Ryu, **Nano Letters**, 19, 4043 (2019).
55. "Epitaxial van der Waals contacts between transition-metal dichalcogenide monolayer polymorphs", Chang-Soo Lee[†], Seung Jae Oh[†], Hoseok Heo, Seung-Young Seo, Juho Kim, Yong Hyeon Kim, Donghwi Kim, Odongo Francis Ngome Okello, Hocheol Shin, Ji Ho Sung, Si-Young Choi, Jun Sung Kim, Jong Kyu Kim, and Moon-Ho Jo, **Nano Letters**, 19, 1814 (2019). ([†]Equal contributors)
56. "Visualization and investigation of charge transport in mixed-halide perovskite via lateral-structure photovoltaic devices", Seok Joo Yang, Min Kim, Hyomin Ko, Dong Hun Sin, Ji Ho Sung, Jungho Mun, Junsuk Rho, Moon-Ho Jo and Kilwon Cho, **Advanced Functional Materials**, 28, 1804067 (2018).
57. "Writing monolithic integrated circuits on a two-dimensional semiconductor with a scanning light probe", Seung-Young Seo, Jaehyun Park, Jewook Park, Kyung Song, Soonyoung Cha, Sangwan Sim, Si-Young Choi, Han Woong Yeom, Hyunyong Choi, and Moon-Ho Jo, **Nature Electronics**, 1, 512 (2018).
58. "Generation, transport, and detection of valley-locked spin photocurrent in WSe₂-graphene-Bi₂Se₃ heterostructures", Soonyoung Cha[†], Minji Noh[†], Je-Hyun Kim, Jangyup Son, Hyemin Bae, Doeon Lee, Hoil Kim, Jekwan Lee, Hoseung Shin, Sangwan Sim, Seunghoon Yang, Chul-Ho Lee, Moon-Ho Jo, Jun Sung Kim, Dohun Kim, and Hyunyong Choi, **Nature Nanotechnology**, 13, 910 (2018). ([†] Equal Contributors)

59. "Highly efficient computer algorithm for identifying layer thickness of atomically thin two-dimensional materials", Jekwan Lee, Seungwan Cho, Soohyun Park, Hyemin Bae, Minji Noh, Beom Kim, Chihun In, Seunghoon Yang, Sooun Lee, Seung Young Seo, Jehyun Kim, Chul-Ho Lee, Wooyoung Shim, Moon-Ho Jo, Dohun Kim, Hyunyong Choi", **Journal of Physics D: Applied Physics**, 51, 11LT03 (2018).
60. "Wavelength-dependent visible light response in vertically-aligned nanohelical TiO₂-based Schottky diodes", Hyunah Kwon, Ji Ho Sung, Yuna Lee, Moon-Ho Jo, and Jong Kyu Kim, **Applied Physics Letters**, 112, 043106 (2018).
61. "Control over electron-phonon interaction by Dirac plasmon engineering in the topological insulator Bi₂Se₃", Chihun In, Sangwan Sim, Beom Kim, Hyemin Bae, Hyunseung Jung, Woosun Jang, Myungwoo Son, Jisoo Moon, Maryam Salehi, Seung Young Seo, Aloysius Soon, Moon-Ho Ham, Hojin Lee, Seongshik Oh, Dohun Kim, Moon-Ho Jo and Hyunyong Choi, **Nano Letters**, 18, 734, (2018).
62. "Ultrafast quantum beats of anisotropic excitons in atomically thin ReS₂", Sangwan Sim, Doeon Lee, Taeyoung Kim, Soonyoung Cha, Ji Ho Sung, Sungjun Cho, Wooyoung Shim, Moon-Ho Jo* and Hyunyong Choi*, **Nature Communications**, 9, 351 (2018). (* co-Corresponding authors)
63. "Directly assembled three-dimensional molybdenum disulfide on silicon wafer for efficient photoelectrochemical water reduction", Dinsefa Mensur Andoshe†, Gangtae Jin†, Chang-Soo Lee†, Ki Chang Kwon, Seokhoon Choi, Woonbae Sohn, Cheon Woo Moon, Seung Hee Lee, Jun Min Suh, Sungwoo Kang, Jaehyun Park, Hoseok Heo, Jong Kyu Kim, Seungwu Han, Moon-Ho Jo* Ho Won Jang*, **Advanced Sustainable Systems**, 1700142 (2018). (†Equal contributors) (*co-Corresponding authors)
64. "Coplanar semiconductor-metal circuitry defined on MoTe₂ few-layer polymorphs via heteroepitaxy", Ji Ho Sung†, Hoseok Heo†, Saerom Si†, Hyeong Rae Noh, Yong Hyeon Kim, Kyung Song, Juho Kim, Chang-Soo Lee, Seung-Young Seo, Hyoung Kug Kim, Han Woong Yeom, Jun Sung Kim, Si-Young Choi, Tae-Hwan Kim, and Moon-Ho Jo, **Nature Nanotechnology**, 12, 1064 (2017). (†Equal contributors)
65. "Electrical spin transport in cylindrical silicon nanowires with CoFeB/MgO contacts", Tae-Eon Park, Byoung-Chul Min, Hee Gyum Park, Jaejun Lee, Moon-Ho Jo, Chaun Jang, Hyun Cheol Koo, Heon-Jin Choi and Joonyeon Chang, **Applied Physics Letters**, 111, 062402 (2017).
66. "Ultrafast hot-carrier photovoltaics of type-I monolayer heterojunctions in the broad spectral ranges", Ji Ho Sung†, Soonyoung Cha†, Hoseok Heo, Juho Kim, Kyungwook Kim, Donghun Lee, Ji-Hoon Ahn, Myoung Jae Lee, Hyunyong Choi* and Moon-Ho Jo*, **ACS Photonics**, 4, 429 (2017). (†Equal contributors) (*co-Corresponding authors)
67. "Highly sensitive, gate-tunable, room temperature infrared photodetection based on graphene-Bi₂Se₃ heterostructure", Jaeseok Kim, Sungjoon Park, Houk Jang, Nikesh Koirala, Jae-bok Lee, Un Jeong Kim, Hyangsook Lee, Sangwan Sim, Soonyoung Cha, Chihun In, Jun Park, Jekwan Lee, Matthew Brahlek, Jisoo Moon, Maryam Salehi, Ji Ho Sung, Moon-Ho Jo, Seongshik Oh, Jong-Hyun Ahn, Sungwoo Hwang, Dohun Kim, Hyunyong Choi", **ACS Photonics**, 4, 482 (2017).
68. "Frank-van der Merwe growth vs. Volmer-Weber growth in van der Waals heteroepitaxial stacking of Bi₂Te₃/Sb₂Te₃ few-layers", Hoseok Heo, Ji Ho Sung, Ji-Hoon Ahn, Fereshte Ghahari, Takashi Taniguchi, Kenji Watanabe, Philip Kim and Moon-Ho Jo, **Advanced Electronic Materials**, 3, 1600375 (2017).
69. "Selectively tunable optical Stark effect of anisotropic excitons in atomically thin ReS₂", Sangwan Sim, Doeon Lee, Minji Noh, Soonyoung Cha, Chan Ho Soh, Ji Ho Sung, Moon-Ho Jo, and Hyunyong Choi, **Nature Communications**, 7, 13569 (2016).
70. (Invited Feature Article) "Ultrafast control of plasmon-phonon interaction using topological quantum-phase transition in photoexcited (Bi_{1-x}In_x)₂Se₃", Sangwan Sim, Jun Park, Nikesh Koirala, Seungmin Lee, Matthew Brahlek, Jisoo Moon, Maryam Salehi, Jaeseok Kim, Soonyoung Cha, Ji Ho Sung, Moon-Ho Jo, Seongshik Oh, and Hyunyong Choi, **ACS Photonics**, 3, 1426 (2016).
71. "Thermoelectric materials by utilizing two-dimensional materials with negative correlation between electrical and thermal conductivity", Myoung-Jae Lee†, Ji-Hoon Ahn†, Ji Ho Sung, Hoseok Heo, Seong Gi Jeon, Woo Lee, Jae Yong Song, Ki-Ha Hong, Byeongdae Choi, Sung-Hoon Lee and Moon-Ho Jo, **Nature Communications**, 7, 12011 (2016). (†Equal contributors)
72. "1s intraexcitonic dynamics in monolayer MoS₂ probed by ultrafast mid-infrared spectroscopy", Soonyoung Cha†, Ji Ho Sung†, Sangwan Sim, Jun Park, Hoseok Heo, Moon-Ho Jo*, and Hyunyong Choi* **Nature Communications**, 7, 10768 (2016). (†Equal contributors) (*co-Corresponding authors)

73. "Highly photoresponsive and wavelength-selective circularly-polarized-light detector based on metal-oxides heterochiral thin film", Seung Hee Lee, Dhruv Pratap Singh, Ji Ho Sung, Moon-Ho Jo, Ki Chang Kwon, Soo Young Kim, Ho Won Jang and Jong Kyu Kim, **Scientific Reports**, 6, 19580 (2016).
74. "Schottky barrier contrasts in single and bi-layer graphene contacts for MoS₂ field-effect transistors", Hyewon Du, Taekwang Kim, Somyeong Shin, Dahye Kim, Hakseong Kim, Ji Ho Sung, Myoung Jae Lee, David H Seo, Sang Wook Lee, Moon-Ho Jo, Sunae Seo, **Applied Physics Letters**, 107, 233106 (2015).
75. "Ultra-high modulation depth exceeding 2,400% in the optically-controlled topological surface plasmons", Sangwan Sim, Houk Jang, Nikesh Koirala, Matthew Brahlek, Jisoo Moon, Ji Ho Sung, Jun Park, Soonyoung Cha, Seongshik Oh, Moon-Ho Jo, Jong-Hyun Ahn, and Hyunyong Choi, **Nature Communications**, 6, 8814 (2015).
76. "Enhancement of the anisotropic photocurrent in ferroelectric oxides by strain gradients", Kanghyun Chu, Byung-Kweon Jang, Ji Ho Sung, Yoon Ah Shin, Eui-Sup Lee, Kyung Song, Jin Hong Lee, Chang-Su Woo, Seung Jin Kim, Si-Young Choi, Tae Yeong Koo, Yong-Hyun Kim, Sang-Ho Oh, Moon-Ho Jo, and Chan-Ho Yang, **Nature Nanotechnology**, 10, 972 (2015).
77. "Deterministic two-dimensional polymorphism growth of hexagonal *n*-type SnS₂ and orthorhombic *p*-Type SnS crystals", Ji-Hoon Ahn, Myoung Jae Lee, Hoseok Heo, Ji Ho Sung, and Moon-Ho Jo, **Nano Letters**, 15, 3703 (2015). (†Equal contributors)
78. "Interlayer orientation dependent light absorption and emission in monolayer semiconductor stacks", Hoseok Heo[†], Ji Ho Sung[†], Soonyoung Cha, Bo-Gyu Jang, Gangtae Jin, Donghun Lee, Ji-Hoon Ahn, Myoung Jae Lee, Ji Hoon Shim, Hyunyong Choi and Moon-Ho Jo, **Nature Communications**, 6, 7372 (2015). (†Equal contributors)
79. "Rotation-misfit-free heteroepitaxial stacking and stitching growth of hexagonal transition-metal dichalcogenide monolayers by nucleation kinetics Controls", Hoseok Heo, Ji Ho Sung, Soonyoung Cha, Gangtae Jin, Ji-Hoon Ahn, Myoung Jae Lee, Hyunyong Choi and Moon-Ho Jo, **Advanced Materials**, 27, 3803 (2015).
80. "Tunable Fano quantum-interference dynamics using topological phase transition in (Bi_{1-x}In_x)₂Se₃", Sangwan Sim, Nikesh Koirala, Matthew Brahlek, Ji Ho Sung, Jun Park, Soonyoung Cha, Moon-Ho Jo, Seongshik Oh and Hyunyong Choi, **Physical Review B**, 91, 235438 (2015).
81. "The role of contact resistance in GeTe and Ge₂Sb₂Te₅ nanowire phase change memory reset switching current", Inchan Hwang, Yong-Jun Cho, Myoung-Jae Lee and Moon-Ho Jo, **Applied Physics Letters**, 106, 193106 (2015).
82. "Lateral organic solar cells with self-assembled Semiconductor Nanowires", Min Kim, Jong Hwan Park, Joo Hyun Kim, Ji Ho Sung, Sae Byeok Jo, Moon-Ho Jo and Kilwon Cho, **Advanced Energy Materials**, 5, 1401317 (2014).
83. "Atomic layer-by-layer thermoelectric Conversion in topological insulator bismuth/antimony tellurides", Ji Ho Sung[†], Hoseok Heo[†], Inchan Hwang, Myungsoo Lim, Donghun Lee, Kibum Kang, Hee Cheul Choi, Jae-Hoon Park, Seung-Hoon Jhi, and Moon-Ho Jo, **Nano Letters**, 14, 4030 (2014). (†Equal contributors)
84. "Two-dimensionally grown single-crystal silicon nanosheets with tunable visible-light emissions", Sung Kim, Jae Lee, Ji Ho Sung, Dong-Jae Seo, Il Soo Kim, Moon-Ho Jo, Byoung Kwon, Won Choi, In-Ho Lee, Heon-Jin Choi, **ACS Nano**, 8, 6556 (2014).
85. (Invited Feature Article) "Growth of straight one-dimensional Ge/ZnSe heterojunctions with atomically sharp interfaces by catalytic residue controls", Kibum Kang, Hoseok Heo, Donghun Lee, Inchan Hwang and Moon-Ho Jo, **Nanotechnology**, 25, 014010 (2014). (†Equal contributors)
86. "Efficient room-temperature near-infrared detection with solution-processed networked single wall carbon nanotube field effect transistors", Ihn Hwang, Hee June Jung, Sung Hwan Cho, Yeon Sik Choi, Jae Ho Choi, Ji Ho Sung, Moon-Ho Jo and Cheolmin Park, **Small**, 10, 653 (2014).
87. "Enhanced device performance of germanium nanowire junctionless (GeNW-JL) MOSFETs by germanide contact formation with Ar plasma treatment", Young Gwang Yoon, Tae Kyun Kim, In-Chan Hwang, Hyun-Seung Lee, Byeong-Woon Hwang, Jung-Min Moon, Yu-Jin Seo, Suk Won Lee, Moon-Ho Jo, Seok-Hee Lee, **ACS Applied Materials & Interfaces**, 6, 3150 (2014).
88. "Quantum confinement effects in transferable silicon nanomembrane and their applications on unusual substrates", Houk Jang, Wonho Lee, Sang M. Won, Seoung Yoon Ryu, Donghun Lee, Jae Bon Koo, Seong-Deok Ahn, Cheol-Woong Yang, Moon-Ho Jo, Jeong Ho Cho, John A Rogers, Jong-Hyun Ahn, **Nano Letters**, 13, 5600 (2013).

89. "Single ferroelectric-domain photovoltaic switching in lateral BiFeO₃ cells", Ji Ho Sung, Won-Mo Lee, Kanghyun Chu, Xavier Moya, Donghun Lee, Neil D. Mathur, Chan-Ho Yang, and Moon-Ho Jo, **NPG Asia Materials**, 5, e38 (2013).
90. "Detection of electrically formed photosensitive area in Ca-doped BiFeO₃ thin films", K. Kamala Bharati, Won-Mo Lee, Ji Ho Sung, Ji Soo Lim, Seung Jin Kim, Kanghyun, Jung Won Park, Jonghyun Song, Moon-Ho Jo and Chan-Ho Yang, **Applied Physics Letters**, 102, 012908 (2013).
91. "Hierarchical SiO_x nanoconifers for li-ion battery anodes with structural and kinetic stability", Kyeongse Song, Sunyoung Yoo, Kibum Kang, Hoseok Heo, Yong-Mook Kang, and Moon-Ho Jo, **Journal of Power Source**, 229, 229 (2013).
92. "Large electro-optical susceptibility mediated by internal photoconductive gain in Ge nanowires", Hyun-Seung Lee, Cheol-Joo Kim, Ru Ri Lee, Ja-Kyung Lee and Moon-Ho Jo, **Nano Letters**, 12, 5913 (2012).
93. "Depolarization effect in optical absorption measurements of one- and two-dimensional nanostructures", Lihong H. Herman, Cheol-Joo Kim, Moon-Ho Jo, and Jiwoong Park, **Applied Physics Letters**, 101, 123102 (2012).
94. "Tunable catalytic alloying eliminates stacking faults in compound semiconductor nanowires", Hoseok Heo, Kibum Kang, Donghun Lee, Li-Hua Jin, Hyeon-Jun Back, Inchan Hwang, Miseong Kim, Hyun-Seung Lee, Byeong-Joo Lee, Gyu-Chul Yi, Yong-Hoon Cho and Moon-Ho Jo, **Nano Letters**, 12, 855 (2012). (†Equal contributors)
95. (*Selected as Frontispiece*) "Spatially resolved photodetection in leaky ferroelectric BiFeO₃", Won-Mo Lee, Ji Ho Sung, Kanghyun Chu, Xavier Moya, Donghun Lee, Cheol-Joo Kim, Neil D. Mathur, S.-W. Cheong, C.-H. Yang, and Moon-Ho Jo, **Advanced Materials**, 24, OP49 (2012).
96. "Exchange-induced electron transports in heavily phosphorus-doped Si nanowires", Tae-Eon Park, Byoung-Chul Min, Ilsoo Kim, Jee-Eun Yang, Moon-Ho Jo, Joonyeon Chang, and Heon-Jin Choi, **Nano Letters**, 11, 4730 (2011).
97. "High mobility graphene nanoribbons prepared using polystyrene dip-pen nanolithography", Yun-Sok Shin, Jong Yeog Son, Moon-Ho Jo, Young-Han Shin and Hyun Myung Jang, **Journal of the American Chemical Society**, 133, 5623 (2011).
98. "Kinetics-driven high-power li-ion batteries with NiSi_x/Si core/shell nanowires", Kibum Kang, Kyung-Se Song, Hoseok Heo, Sunyoung Yoo, Gil-Sung Kim, Geunhee Lee, Yong-Mook Kang, and Moon-Ho Jo, **Chemical Science**, 2, 1090 (2011).
99. "Determination of photocarrier diffusion length in intrinsic Ge nanowires", Yun-Sok Shin, Donghun Lee, Hyun-Seung Lee, Yong-Jun Cho, Cheol-Joo Kim, and Moon-Ho Jo, **Optics Express**, 19, 6119 (2011).
100. "On-nanowire band-graded Si:Ge photodetector", Cheol-Joo Kim, Hyun-Seung Lee, Yong-Jun Cho, Jee-Eun Yang and Moon-Ho Jo, **Advanced Materials**, 23, 1025 (2011).
101. "Diameter-dependent internal gain in intrinsic Ge nanowires", Cheol-Joo Kim[†], Hyun-Seung Lee[†], Yong-Jun Cho, and Moon-Ho Jo, **Nano Letters**, 10, 2043 (2010). († Equal Contributors)
102. "Maximum Li storage in Si nanowires for the high capacity three-dimensional Li-ion battery", Kibum Kang, Dong-Wook Han, Hyun-Seung Lee, Gil-Sung Kim, Donghun Lee, Geunhee Lee, Yong-Mook Kang, and Moon-Ho Jo, **Applied Physics Letters**, 96, 053110 (2010).
103. "Structural and magnetic properties of Ge_{0.7}Mn_{0.3} thin films", Sung-Kyu Kim, Jong Yeog Son, Young-Han Shin, Moon-Ho Jo, S. Park, Tae Eun Hong, K.J. Yee, **Thin Solid Films**, 518, 2665 (2010).
104. "Large-scale assembly of highly flexible low-noise devices based on silicon nanowires", Kwang Heo, Jee Woo Park, Jee-Eun Yang, Juntae Koh, Ji-Hwan Kwon, Young Min Jhon, Miyoung Kim, Moon-Ho Jo and Seunghun Hong, **Nanotechnology**, 21, 145302 (2010).
105. "Directionally integrated VLS nanowire growth by the local temperature gradient", Geunhee Lee, Yun Sung Woo, Jee-Eun Yang, Donghun Lee, Cheol-Joo Kim and Moon-Ho Jo, **Angewandte Chemie Int Ed.**, 48, 7366 (2009).
106. "Near-field electrical detection of optical plasmons and single-plasmon sources", Abram L. Falk, Frank H. L. Koppens, Chun Yu, Kibum Kang, Nathalie de Leon Snapp, Alexey V. Akimov, Moon-Ho Jo, Mikhail D. Lukin, and Hongkun Park, **Nature Physics**, 5, 475 (2009).

107. "Heteroepitaxial ferroelectric ZnSnO₃ thin film", Jong Yeog Son, Geunhee Lee, Moon-Ho Jo, Hyungjun Kim, Hyun M. Jang, and Young-Han Shin, **Journal of the American Chemical Society**, 131, 8386 (2009).
108. "Vertically aligned Si intra-nanowire p-n diodes by large-area epitaxial growth", Cheol-Joo Kim, Donghun Lee, Hyun-Seung Lee, Geunhee Lee, Gil-Sung Kim and Moon-Ho Jo, **Applied Physics Letters**, 94, 173105 (2009).
109. (Invited Feature Article) "Unconventional roles of metal catalysts in chemical-vapor syntheses of single-crystalline nanowires", Kibum Kang, Cheol-Joo Kim and Moon-Ho Jo, **Journal of Applied Physics**, 105, 122407 (2009).
110. "Electrical and optical observations of ferromagnetism in Ge_{0.7}Mn_{0.3} semiconductor", Sung-Kyu Kim, S Park, K J Yee, Jong Yeog Son, Young-Han Shin, Moon-Ho Jo and Tae Eun Hong, **J. Phys. D: Appl. Phys.**, 42, 085005 (2009).
111. (Invited Feature Review) "Massive integration of inorganic nanowire-based structures on solid substrates for device applications", Kwang Heo, Cheol-Joo Kim, Moon-Ho Jo and Seunghun Hong, **Journal of Materials Chemistry**, 19, 901 (2009).
112. "The fabrication, characterization and application of aptamer-functionalized Si-nanowire FET biosensors", K. S. Kim, Hyun-Seung Lee, J. A. Yang, Moon-Ho Jo and S. K. Hahn, **Nanotechnology**, 20, 235501 (2009).
113. "P-type Si-nanowire-based field-effect transistors for electric detection of a biomarker: matrix metalloproteinase-9", Seung Hyun Lee, KyeJin Jeon, Wooyoung Lee, Ahmi choi, Hyo-Il Jung, Cheol-Joo Kim and Moon-Ho Jo, **Journal of the Korean Physical Society** 55, 232 (2009).
114. "Electrical detection of VEGFs for cancer diagnoses using anti-VEGF aptamer-modified Si nanowire FETs", Hyun-Seung Lee, Ki Su Kim, Cheol-Joo Kim, Sei Kwang Hahn and Moon-Ho Jo, **Biosensors and Bioelectronics** 24, 1801 (2009).
115. "Large-scale assembly of silicon nanowire network-based devices using conventional microfabrication facilities", Kwang Heo, Eunhee Cho, Jee-Eun Yang, Hee-Chul Han, Minbaek Lee, Byung Yang Lee, Moon-Sook Lee, Moon-Ho Jo, Heon-Jin Choi and Seunghun Hong, **Nano Letters** 8, 4523 (2008).
116. "Self-organized growth of Ge nanowires from Ni-Cu bulk alloys", Kibum Kang, Gil Ho Gu, Dong An Kim, Chan Gyung Park and Moon-Ho Jo, **Chemistry of Materials** 20, 6577 (2008).
117. "Low-temperature deterministic growth of Ge nanowires using Cu solid catalysts", Kibum Kang, Dong An Kim, Hyun-Seung Lee, Cheol-Joo Kim, Jee-Eun Yang and Moon-Ho Jo, **Advanced Materials** 20, 4684 (2008).
118. "Axially graded heteroepitaxy and Raman spectroscopic characterizations of Si_{1-x}Ge_x nanowires", Jee-Eun Yang, Won-Hwa Park, Cheol-Joo Kim, Zee Hwan Kim, and Moon-Ho Jo, **Applied Physics Letters** 92, 263111 (2008).
119. "Thermodynamic analysis for the size-dependency of Si_{1-x}Ge_x nanowire composition grown by a vapor-liquid-solid method", Inyoung Sa, Cheol-Joo Kim, Byeong-Moon Lee, Moon-Ho Jo and Byeong-Joo Lee, **CALPHAD** 32, 669 (2008).
120. "The role of NiO_x overlayers on spontaneous growth of NiSi_x nanowires from Ni seed layers", Kibum Kang, Sungkyu Kim, Cheol-Joo Kim, and Moon-Ho Jo, **Nano Letters** 8, 431 (2008).
121. "Solid-phase epitaxy of amorphous Si using single-crystalline Si nanowire templates", Yun Sung Woo, Kibum Kang, Jong-Myeong Jeon, Miyoung Kim and Moon-Ho Jo, **Applied Physics Letters** 91, 223107 (2007).
122. "Fabrication of Si_{1-x}Ge_x alloy nanowire field-effect transistors", Cheol-Joo Kim, Won-Hwa Park, Jee-Eun Yang, Hyun-Seung Lee, Sunglyul Maeng, Zee Hwan Kim, Hyun M. Jang and Moon-Ho Jo, **Applied Physics Letters** 91, 033104 (2007).
123. "Spontaneous chemical vapor growth of NiSi nanowires and their metallic properties", Cheol-Joo Kim, Kibum Kang, Yun Sung Woo, Kyung-Guk Ryu, Heesung Moon, Jae-Myung Kim, Dong-Sik Zang and Moon-Ho Jo, **Advanced Materials** 19, 3637 (2007).
124. "Band-gap modulation in single-crystalline Si_{1-x}Ge_x nanowires", Jee-Eun Yang, Chang-Beom Jin, Cheol-Joo Kim and Moon-Ho Jo, **Nano Letters** 6, 2679 (2006).
125. "Shape-controlled growth of single-crystalline Ge nanostructures", Chang-Beom Jin, Jee-Eun Yang, Moon-Ho Jo, **Applied Physics Letters** 88, 193105 (2006).

126. "Signatures of molecular magnetism in single-molecule transport spectroscopy", Moon-Ho Jo, Jacob E. Kanhayalal Baheti, Mandar M. Deshmukh, Jennifer J. Sokol, Evan M. Rumberger, David N. Hendrickson, Jeffrey R. Long, Hongkun Park, and D. C. Ralph, **Nano Letters** 6, 1457 (2006).
127. "Polarized Raman scattering of multiferroic BiFeO₃ epitaxial films with rhombohedral R3c symmetry", Manoj K. Singh, Hyun M. Jang, Sangwoo Ryu, and Moon-Ho Jo, **Applied Physics Letters** 88, 042907 (2006).
128. "Synthesis of single-crystalline La_{1-x}Ba_xMnO₃ nanocubes with adjustable doping levels", J.J. Urban, L. Ouyang, Moon-Ho Jo, H. Park, **Nano Letters** 4, 1547 (2004).
129. "Colossal magnetoresistive manganite thin-films for infrared detection and imaging", M.A. Todd, P.P. Donohue, P.J. Wright, M.J. Crosbie, P.A. Lane, Moon-Ho Jo, B.S.H. Pang, M.G. Blamire, **Annalen Der Physik** 13, (1-2) 48 (2004).
130. "The microwave surface impedance of MgB₂ thin films", A.J. Purnell, A.A. Zhukov, T. Nurgaliev, G. Lamura, Y. Bugoslavsky, Z. Lockman, J.L. MacManus-Driscoll, H.Y. Zhai, H.M. Christen, M.P. Paranthaman, D.H. Lowndes, Moon-Ho Jo, M.G. Blamire, L. Hao, J.C. Gallop and L.F. Cohen, **Superconductors Science and Technology** 16, 1 (2003).
131. "Spin- and charge-modulated trilayer-magnetic junction: La_{0.7}Ca_{0.3}MnO₃/La_{0.45}Ca_{0.55}MnO₃/La_{0.7}Ca_{0.3}MnO₃", Moon-Ho Jo, M.G. Blamire, D. Ozkaya, A. K. and Petford-Long, **Journal of Physics: Condensed Matters** 15 5243 (2003).
132. "Assessment of colossal magnetoresistive manganite thin films for infrared detector applications", P.P. Donohue, R. Watton, M.A. Todd, M.G. Blamire, Moon-Ho Jo, **SPIE Proc. Ser.** 4650, 234 (2002).
133. "Effective vortex pinning in MgB₂ thin films", Y. Bugoslavsky, L. Cowey, T.J. Tate, G.K. Perkins, J. Moore, Z. Lockman, A. Berenov, J.L. MacManus-Driscoll, A.D. Caplin, L.F. Cohen, H.Y. Zhai, H.M. Christen M.P. Paranthaman, D.H. Lowndes, Moon-Ho Jo and M.G. Blamire, **Superconductors Science and Technology** 15, 1392 (2002).
134. "Microwave surface resistance of MgB₂", A.A. Zhukov, A. Purnell, Y. Miyoshi, Y. Bugoslavsky, Z. Lockman, A. Berenov, H.Y. Zhai, H.M. Christen, M. P. Paranthaman, D.H. Lowndes, Moon-Ho Jo, M.G. Blamire, Ling Hao, J. Gallop, J. L. MacManus-Driscoll and L.F. Cohen, **Applied Physics Letters** 80, 2347 (2002).
135. "Magnetization reversal probed by spin-polarized tunneling", Moon-Ho Jo, N.D. Mathur and M.G. Blamire, **Applied Physics Letters** 80, 2722 (2002).
136. "Structure and chemistry of manganite based tunnel junctions", D. Ozkaya, A. K. Petford-Long, Moon-Ho Jo and M. G. Blamire, **Journal of Applied Physics** 89, 6757 (2001).
137. "Growth of strongly biaxially aligned MgB₂ thin films on sapphire by post-annealing of amorphous precursors", A. Berenov, Z. Lockman, X. Qi, Y. Bugoslavsky, L.F. Cohen, Moon-Ho Jo, N.A. Stelmashenko, V.N. Tsaneva, M. Kambara, N. Hari Babu, D.A. Cardwell, M.G. Blamire, and J. L. MacManus-Driscoll, **Applied Physics Letters** 79, 4001 (2001).
138. "Magnetic anisotropy of thin film La_{0.7}Ca_{0.3}MnO₃ on untwinned paramagnetic NdGaO₃ (001)", N.D. Mathur, Moon-Ho Jo, J.E. Evetts and M.G. Blamire, **Journal of Applied Physics** 89 338 (2001).
139. "Coherent magnetic reversal in half-metallic manganites tunnel junctions", Moon-Ho Jo, N.D. Mathur, J.E. Evetts and M.G. Blamire, **Applied Physics Letters** 77, 3803 (2000).
140. "Very large magnetoresistance and coherent switching in half-metallic manganite tunnel junctions", Moon-Ho Jo, N.D. Mathur, N.K. Todd and M.G. Blamire, **Physical Review B, (Rapid Communications)**, 61, R14905 (2000).
141. "Inhomogeneous transport in heteroepitaxial La_{0.7}Ca_{0.3}MnO₃/SrTiO₃ multilayers", Moon-Ho Jo, N.D. Mathur, J.E. Evetts, M.G. Blamire, M. Bibes and J. Fontcuberta, **Applied Physics Letters** 75, 3689 (1999).
142. "Magnetotransport and interface magnetism in manganite heterostructures: implications for spin polarized tunneling", Moon-Ho Jo, N.D. Mathur, J.E. Evetts and M.G. Blamire, **Materials Research Society Symposium Proceeding** 602, 3 (1999).
143. "Leakage current and dielectric breakdown behaviors in post-annealed SiO₂ aerogel films", Moon-Ho Jo, H.H. Park, **Applied Physics Letters** 72, 1391 (1998).
144. "Effect of oxygen plasma treatment on SiO₂ aerogel films", H.H. Park, Moon-Ho Jo, H.R. Kim, and S.H. Hyun, **Journal of Materials Science Letters** 17, 2083 (1998).

145. "SiO₂ aerogel film as a novel intermetal dielectric", Moon-Ho Jo, D.J. Kim, H.H. Park, S.H. Hyun, S.Y. Choi and J.T. Paik, **Journal of Applied Physics**, 82, 1299 (1997).
146. "Application of SiO₂ aerogel film with low dielectric constant to intermetal dielectrics", Moon-Ho Jo, J.K. Hong, J.J. Kim, H.H. Park, S.H. Hyun and S.Y. Choi, **Thin Solid Films** 308, 490 (1997).
147. "Evaluation of SiO₂ aerogel thin film with ultralow dielectric constant as an intermetal dielectric", Moon-Ho Jo, D.J. Kim, H.H. Park and S.H. Hyun, **Microelectronic Engineering** 33, 343 (1997).
148. "Preparation and characterization of porous silica xerogel film for low dielectric application", J.K. Hong, H.S. Yang, Moon-Ho Jo, H.H. Park, S.H. Hyun and S.Y. Choi, **Thin Solid Films** 308, 495 (1997).
149. "New ternary fluoride with K₂NiF₄ type structure in CsF-CaF₂ system: Cs₂CaF₄", Moon-Ho Jo, H.H. Park, K.S. Suh and C.H. Kim, **Journal of Materials Science Letters** 15, 1294 (1996).
150. "Angle resolved X-ray photoelectron spectroscopic analysis on the surface of wet-etched copper", M.K. Kang, Moon-Ho Jo, H.H. Park and K.S. Suh, **Japanese Journal of Applied Physics** 35, 3869 (1996).