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Education

2006.09 – 2012.02 Northwestern University, Evanston, IL, USA

Ph.D. in Chemistry (Division of Materials Chemistry)

Joint Advisors: Prof. Tobin J. Marks and Prof. Mercouri G. Kanatzidis

1999.03 – 2006.08 Korea Advanced Institute of Science and Technology, Daejeon, South Korea

B.S. in Chemistry (Major) and Applied Mathematics (Minor)

Research Experience

2019.09 ~ present *Sungkyunkwan University* **Professor**

- Research on advanced electronic material, soluble inorganic material precursor, energy and environmental material.

2014.03 ~ 2019.08 *Chung-Ang University* **Associate Professor**

- Research on advanced electronic material, soluble inorganic material precursor, energy and environmental material.

2013.01 – 2014.02 *Stanford University* **Postdoctoral Fellow (Advisor: Prof. Zhenan Bao)**

- Developed stable and strong charge transfer doping of carbon materials (CNT/Graphene) and polymer semiconductor with oxide semiconductors.

2012.03 - 2012.12 *Northwestern University* **Postdoctoral Fellow (Advisor: Prof. Tobin J. Marks)**

- Developed novel metal oxide semiconductor based interfacial layer for organic photovoltaics.

2006.09-2012.02 *Northwestern University* **Graduate Research Assistant**

(Joint Advisors: Prof. Tobin J. Marks and Prof. Mercouri G. Kanatzidis)

Ph. D. Thesis: Solution-processed Post Transition Metal Oxide Semiconductor Electronics: High Performance Thin-film Transistor and/or Low Temperature Processed Thin Film

- Synthesized solution processed high electron mobility amorphous oxide semiconductors.
- Developed novel low temperature solution processing strategy for metal oxide thin-film based electronics from combustion chemistry.
- Developed post linkage concept for nano-material based macroelectronics application

Selected Publication

9. “High-Performance Transparent p-Type Thin-Film Transistor and Circuit with Air-stable CuI: Cd” Minki Son, Yeo Kyung Kang, Jaesung Kim, Jae-Hyeok Cho, Minh Nhut Le, In Soo Kim, Donghee Son, Choongik Kim, Byunghoon Kim, Kyunghan Ahn, Yong-Young Noh, and **Myung-Gil Kim***
Adv. Funct. Mater. **2026**, Online, DOI: 10.1002/adfm.20252071
8. “Molecular Functionality Switching of Isomorphic Organoantimony Complexes Between High-Sensitivity Radical Initiator and Quencher for Reliable EUV Lithography” Yeo Kyung Kang, Dong Kyun You, Sun Jin Lee, Vishal Gupta, Dowon Kim, Jinho Hwang, Hae-geun Jee, Sukwon Hong, Geunsik Lee, Kang Mun Lee*, Chan-Cuk Hwang*, and **Myung-Gil Kim***
Chem. Mater. **2025**, 37, 8968
7. “Multiscale structural control of thiostannate chalcogels with two-dimensional crystalline constituents” Thanh Duy Cam Ha†, Heehyeon Lee†, Yeo Kyung Kang, In Chung, Byungman Kang, Youngtak Oh,* and **Myung-Gil Kim*** *Nat. Commun.*, **2022**, 13, 7876
6. “High-performance all-inorganic metal halide perovskite transistors” Ao Liu, Huihui Zhu, Sai Bai, Youjin Reo, Taoyu Zou, **Myung-Gil Kim,*** Yong-Young Noh,* *Nat. Electron.*, **2022**, 5, 78–83
5. “Versatile Solution-Processed Organic–Inorganic Hybrid Superlattices for Ultraflexible and Transparent High-Performance Optoelectronic Devices” Minh Nhut Le, Kang-Jun Baeg, Kyung-Tae Kim, Seung-Han Kang, Byung-Doo Choi, Chan-Yong Park, Seong-Pil Jeon, Sol Lee, Jeong-Wan Jo, Seon-Hyoung Kim, Jun-Gu Park, Dong-Il Ho, Jongin Hong, Miso Kim, Han-Ki Kim, Choongik Kim, Kwanpyo Kim, Yong-Hoon Kim, Sung Kyu Park*, **Myung-Gil Kim*** *Adv. Funct. Mater.*, **2021**, 31, 2103285
4. “High-performance p-channel transistors with transparent Zn doped-CuI” Ao Liu, Huihui Zhu, Won-Tae Park, Se-Jun Kim, Hyungjun Kim, **Myung-Gil Kim***, Yong-Young Noh* *Nature Commun.*, **2020**, 11, 4309
3. “A skin-like 2-dimensionally pixelized full-colour quantum dot photodetector” Jaehyun Kim, Sung-Min Kwon, Yeokyung Kang, Jeong-Wan Jo, Myung-Jae Lee, Yong-Hoon Kim, **Myung-Gil Kim***, Sung Kyu Park* *Sci. Adv.*, **2019**, 5, eaax8801
2. “Solution-Processed Rad-hard Amorphous Metal Oxide Thin-Film Transistors” Byungkyu Park†, Dongil Ho†, Guhyun Kwon, Dojun Kim, SungYong Seo, **Choongik Kim***, **Myung-Gil Kim*** *Adv. Funct. Mater.*, **2018**, 28, 1802717.
1. “High-Performance and Scalable Metal-Chalcogenide Semiconductors and Devices via Chalco-Gel Routes” **Sung Min Kwon**, Jongkook Won, Jeong-Wan Jo, Jaehyun Kim, Hee-Joong Kim, Hyuck-in Kwon, Jaekyun Kim, Sangdoo Ahn, Yong-Hoon Kim, Myoung-Jae Lee, Hyung-ik Lee, **Tobin J. Marks***, **Myung-Gil Kim***, **Sung Kyu Park*** *Sci. Adv.* **2018**, 13, eaap9104.

List of Publication

First or Corresponding Author Works (†: equally contributed to this manuscript)

75. All-scale structural optimization of resiliently crystalline Na-Ce-Sn-S chalcogel for efficient oxygen evolution reaction electrocatalyst

Bobin Kang†, Thanh Duy Cam Ha†, Alaelddin Michailidis Barakat, Gyumin Lee, Heehyeon Lee, Youngtak Oh, Hyunjeong Kim, In Chung, Seok Min Yoon*, **Myung-Gil Kim***

Angewandte Chemie International Edition **2026**, Online, DOI: 10.1002/anie.202523034

74. High-Performance Transparent p-Type Thin-Film Transistor and Circuit with Air-stable CuI:Cd

Minki Son, Yeo Kyung Kang, Jaesung Kim, Jae-Hyeok Cho, Minh Nhut Le, In Soo Kim, Donghee Son, Choongik Kim, Byunghoon Kim, Kyunghan Ahn, Yong-Young Noh, **Myung-Gil Kim***

Advanced Functional Materials **2026**, Online, DOI: 10.1002/adfm.20252071

73. Fiber Laser-Assisted Room-Temperature Crystallization of Solution-Processed Indium-Rich In-Ga-O Thin Film for High-Performance, High-Reliability Thin-Film Transistor

Jae-Hyeok Cho†, Ji-Won Park†, Minh Nhut Le, Seung-Beom Shin, Woojin Oh, Minki Son, Van thu Cao, Boram Lee, Kyunghwan Min, Myeonghun Han, In Soo Kim, Donghee Son, Choongik Kim, Hanlim Kang*, **Myung-Gil Kim***

Journal of Materials Chemistry C **2026**, Online, DOI: 10.1039/D5TC02983J

72. Rational Nanoarchitecturing of Coinage Metals via Kinetically Controlled Mass-Limited Reaction with EGaIn Nanoparticles

Seung-Beom Shin, Ga-Hye Kim, Jae-Hyeok Cho, Seung-Han Kang, Jeong-Wan Jo, In Soo Kim, Donghee Son, Young-Hoon Kim, Kyunghan Ahn, Sung Kyu Park*, **Myung-Gil Kim***

Journal of the American Chemical Society **2025**, 147, 46941

71. Molecular Functionality Switching of Isomorphic Organoantimony Complexes Between High-Sensitivity Radical Initiator and Quencher for Reliable EUV Lithography

Yeo Kyung Kang, Dong Kyun You, Sun Jin Lee, Vishal Gupta, Dowon Kim, Jinho Hwang, Hae-geun Jee, Sukwon Hong, Geunsik Lee, Kang Mun Lee*, Chan-Cuk Hwang*, **Myung-Gil Kim***

Chemistry of Materials **2025**, 37, 8968

70. Recent progress of p-type semiconductors and its application for thin-film transistor: Metal oxide, metal halide, and tellurium

Yeong-Min Seon, Minki Son, Hanlim Kang*, **Myung-Gil Kim***

Transactions on Electrical and Electronic Materials **2025**, Online, DOI: 10.1007/s42341-025-00685-x

69. Recent Advances of Gallium-Based Liquid Metals: Properties, Patterning Strategies, and Applications in Soft Electronics

Seung-Beom Shin, **Myung-Gil Kim***

Bulletin of the Korean Chemical Society **2025**, 46, 978

68. High-performance piezoelectric nanocomposite of poly(vinylidene fluoride-trifluoroethylene) with 2D crystalline ferroelectric chalcogel

Trung Dieu Do†, Thanh Duy Cam Ha†, Minh Chien Nguyen, Tran Quang Trung, Jae-Hyeok Cho, Minh Nhut Le, Bobin Kang, Woo Jong Yu, **Myung-Gil Kim***, Nae-Eung Lee*
Science Advances **2025**, *11*, eadx3444

67. Photo-crosslinked Polyimide Dielectric for Mechanically Reliable High-performance Flexible Metal Oxide Thin-film Transistors

Van Thu Cao†, Sumgmi Yoo†, Minh Nhut Le†, Jae-Hyeok Cho, Minki Son, Gahye Kim, Jiwon Park, San Nam, Trung Dieu Do, Nae-Eung Lee, William J. Scheideler, Jong Chan Won, Yun Ho Kim*, **Myung-Gil Kim***

ACS Applied Materials & Interfaces **2025**, *17*, 45937

66. Flexible Synaptic Memristors with Controlled Rigidity in Zirconium-Oxo Clusters for High-precision Neuromorphic Computing

Jae-Hyeok Cho†, Suk Yeop Chun†, Ga Hye Kim, Panithan Sriboriboon, Sanghee Han, Seung Beom Shin, Jeehoon Kim, San Nam, Yunseok Kim, Yong-Hoon Kim*, Jung Ho Yoon*, **Myung-Gil Kim***

Advanced Science, **2025**, *12*, 2412289

65. Exploring Doping Mechanisms and Modulating Carrier Concentration in Copper Iodide: Applications in Thermoelectric Materials

Ga Hye Kim†, Hyeon-Beom Kim†, Hyungseock Lee, Jae-Hyeok Cho, Jun Ryu, Dong-Won Kang, In Chung, Hyejin Jang*, Kyunghan Ahn*, and Myung-Gil Kim*

Small **2024**, *20*, 2403133

64. Recent progress of inorganic photoresists for next-generation EUV lithography

Yeo Kyung Kang†, Sun Jin Lee†, Sunghun Eom, ByeongGeun Kim, Chan-Cuk Hwang*, **Myung-Gil Kim***

Journal of Materials Chemistry C **2024**, *12*, 15855

63. Transparent p-Type Copper Iodide for Next-Generation Electronics: Fundamental Physics and Recent Research Trends

Ga Hye Kim†, Jiyong Lee†, Kyunghan Ahn, **Myung-Gil Kim***

Soft Science **2024**, *4*, 33

62. Dopant Control of Solution-Processed CuI:S for Highly Conductive p-Type Transparent Electrode

Minki Son, Ga Hye Kim, Okin Song, ChanHu Park, Sunbum Kwon, Joohoon Kang, Kyunghan Ahn*, **Myung-Gil Kim***

Advanced Science, **2024**, *11*, 2308188

61. Enhancement of photosensitivity and stability of Sn-12 EUV resist by integrating photoactive nitrate anion

Yeo Kyung Kang, Heeju Kim, Sun Jin Lee, Dong-Seok Oh, Yang-Hun Yoon, Chang-Jun Kim, Geun Young Yeom, Chan-Cuk Hwang*, **Myung-Gil Kim***

Applied Surface Science, **2024**, *656*, 159564

60. Recent Developments in Porous Metal Chalcogenides for Environmental Remediation and Sustainable Energy

Thanh Duy Cam Ha†, Heehyeon Lee†, Ioannis Vamvasakis†, Gerasimos S. Armatas*, Youngtak Oh*, **Myung-Gil Kim***

EcoMat, **2023**, *5*, e12419

59. Room Temperature-Grown Highly Oriented Nanocrystalline Tellurium Thin Films for Large-Scale *nc*-Te and *a*-IGZO CMOS Devices

Ga Hye Kim, Seung-Han Kang, Jong Min Lee, Minki Son, Jiyoung Lee, Hyungseok Lee, In Chung, Jaehyun Kim, Yong-Hoon Kim, Kyunghan Ahn, Sung Kyu Park*, **Myung-Gil Kim***
Applied Surface Science, **2023**, 636, 157801

58. Transformation of $K_2Sb_8Q_{13}$ and KSb_5Q_8 structure-type bulk crystals to Sb_2Q_3 (Q = S, Se, and their mixtures) solid-solution nanofibers by acid-base solution chemistry

Hyungseok Lee, Byeongjun Yoo, Dawoon Kim, Joonil Cha, Yeo Kyung Kang, Sung-Pyo Cho, Taeghwan Hyeon, **Myung-Gil Kim***, Mercouri G. Kanatzidis*, In Chung*
Journal of the American Chemical Society, **2023**, 145, 15951

57. In Situ Radiation Hardness Study of Amorphous Zn–In–Sn–O Thin-Film Transistors with Structural Plasticity and Defect Tolerance

Dongil Ho, Sunwoo Choi, Hyunwoo Kang, Byungkyu Park, Minh Nhut Le, Sung Kyu Park, **Myung-Gil Kim***, Choongik Kim*, Antonio Facchetti*
ACS Applied Materials & Interfaces, **2023**, 15, 33751

56. Emerging Non-oxide Dielectrics for Next-Generation Electronics

Ga Hye Kim, Seung Beom Shin, **Myung-Gil Kim***
Bulletin of The Korean Chemical Society, **2023**, 44, 806

55. Optimization of solution-processed amorphous cadmium gallium oxide for high-performance thin-film transistors

Minh Nhut Le, Paul Lee, Seung-Han Kang, Kyunghan Ahn, Sung Kyu Park, Jaesang Heo*, **Myung-Gil Kim***
Journal of Materials Chemistry C., **2023**, 11, 7433

54. Multipurpose organic-inorganic hybrid dielectrics with photothermal crosslinking of zirconium-oxo clusters

Gahye Kim, Juyung Park, Dojun Kim, Jeong-Wan Jo, Choongik Kim, Kang-Jun Baeg*, **Myung-Gil Kim***
Journal of Alloys and Compounds, **2023**, 955, 170194

53. Anion Vacancy Defect Passivation of 2D-layered Tin-based Perovskite Thin-Film Transistor with Sulfur Doping

Jae-Hyeok Cho, Ji-Young Go, Tan Tan Bui, Seunguk Mun, Yunseok Kim, Kyunghan Ahn*, Yong-Young Noh*, **Myung-Gil Kim***
Advanced Electronic Materials, **2023**, 9, 2201014

52. Multiscale structural control of thiostannate chalcogels with two-dimensional crystalline constituents

Thanh Duy Cam Ha†, Heehyeon Lee†, Yeo Kyung Kang, In Chung, Byungman Kang, Youngtak Oh*, **Myung-Gil Kim***
Nature Communications, **2022**, 13, 7876

51. Highly conductive transparent p-type sulfur-doped copper iodide thin film prepared by a liquid-iodination process

Kyunghan Ahn, Ga Hye Kim, Se-Jun Kim, Jihyun Kim, Gi-Seong Ryu, Byungki Ryu, Jung Young Cho, Younghoon Kim, Joohoon Kang, Hyungjun Kim, Yong-Young Noh*, **Myung-Gil Kim***

Chemistry of Materials, **2022**, 34, 10517

50. Photo-Regeneration of Zeolite-Based Volatile Organic Compound Filters Enabled by TiO₂ Photocatalyst

Taegyu Kim, Kunsang Yoo, Youngjin Kang, **Myung-Gil Kim***, Yong-Hoon Kim*

Nanomaterials, **2022**, 12, 2959

49. Phosphazene based LATP precursor for a CEI coating layer on high voltage LiNi_{0.5}Mn_{1.5}O₄ cathode with improved cycling durability

Hyunsung Kang, Tan Tan Bui, Boseon Yun, Van-Chuong Ho, Daon Lee, Junyoung Mun*, **Myung-Gil Kim***

Materials Chemistry and Physics, **2022**, 290, 126492

48. GO/CoMo₃S₁₃ chalcogel heterostructure with rich catalytic Mo-S-Co bridge site for hydrogen evolution reaction

Thanh Duy Cam Ha, Ha Huu Do, Heehyeon Lee, Nguyen Ngoc Ha, Nguyen Thi Thu Ha, Sang Hyun Ahn, Youngtak Oh*, Soo Young Kim*, **Myung-Gil Kim***

Nanoscale, **2022**, DOI: [10.1039/D2NR01800D](https://doi.org/10.1039/D2NR01800D)

47. Electrical defect passivation of crystalline In-Ga-O thin film transistor with organic-inorganic superlattice structure

Minh Nhut Le, Minki Son, Dongil Ho, Choongik Kim, Kyunghan Ahn* **Myung-Gil Kim***

Compos. Interfaces, **2022**, [10.1080/09276440.2022.2076364](https://doi.org/10.1080/09276440.2022.2076364)

46. Metal-organic framework for lithium and sodium-ion batteries: Progress and Perspective

Ha Huu Do[†], Thanh Duy Cam Ha[†], Sang Hyun Ahn*, **Myung-Gil Kim***, Soo Young Kim*, Sang-Wha Lee*

Fuel, **2022**, 319, 123856

45. Efficient oxygen-vacancy suppression and electrical stabilization of solution-processed In₂O₃:Q (Q = S, Se) thin-film transistor with chalcogen alloying.

Paul Lee[†], Minh Nhut Le[†], Gahye Kim, Sung Min Kwon, Jeong-Wan Jo, Jaehyun Kim, Yong-Hoon Kim, Sung Kyu Park, Kyunghan Ahn*, **Myung-Gil Kim***.

Adv. Electron. Mater., **2022**, DOI: 10.1002/aelm.202101250

44. High-performance all-inorganic metal halide perovskite transistors

Ao Liu[†], Huihui Zhu[†], Sai Bai, Youjin Reo, Taoyu Zou, **Myung-Gil Kim,*** Yong-Young Noh,*

Nat. Electron., **2022**, 5, 78–83

43. Ferroelectric PVDF Nanofiber Membrane for High Efficiency PM0.3 Air Filtration with Low Air Flow Resistance

Tan Tan Bui, Min Kyoung Shin, Seung Yong Jee, Jongin Hong,* **Myung-Gil Kim***

Colloids Surf. A Physicochem. Eng., **2022**, 640, 128418

42. Low-temperature synthesis of molybdenum sulfides, tungsten sulfides, and composites thereof as efficient electrocatalysts for hydrogen evolution reaction

Ha Huu Do[†], Thanh Duy Cam Ha[†], Honggil Jo, Kang Min Ok, Jin Hyuk Cho, Sang Hyun Ahn*, **Myung-Gil Kim***, Soo Young Kim*

Appl. Surf. Sci., **2022**, 576, 151828

41. A highly efficient nanofibrous air filter membrane fabricated using electrospun amphiphilic PVDF-g-POEM double comb copolymer

Juyoung Moon[†], Tan Tan Bui[†], Soyoung Jang, Seungyoung Ji, Jung Tae Park*, **Myung-Gil Kim***

Sep. Purif. Technol., **2021**, 279, 119625

40. Versatile Solution-Processed Organic-Inorganic Hybrid Superlattices for Ultraflexible and Transparent High-Performance Optoelectronic Devices

Minh Nhut Le[†], Kang-Jun Baeg[†], Kyung-Tae Kim, Seung-Han Kang, Byung-Doo Choi, Chan-Yong Park, Seong-Pil Jeon, Sol Lee, Jeong-Wan Jo, Seon-Hyoung Kim, Jun-Gu Park, Dong-Il Ho, Jongin Hong, Miso Kim, Han-Ki Kim, Choongik Kim, Kwanpyo Kim, Yong-Hoon Kim, Sung Kyu Park*, **Myung-Gil Kim***

Adv. Funct. Mater., **2021**, 31, 2103285

39. Solution processing of lithium rich amorphous Li-La-Zr-O ion conductor and its application for cycling durability improvement of LiCoO₂ cathode as coating layer

Tan Tan Bui, Boseon Yun, Kwabena Darko, Seung Beom Shin, Jaehyun Kim, Jongin Hong, Minah Lee, Sung Kyu Park*, **Myung-Gil Kim***

Adv. Mater. Interfaces, **2021**, 8, 2001767

38. Photo-assisted low temperature crystallization of solution derived LiCoO₂ thin-film

Boseon Yun[†], Tan Tan Bui[†], Hayeong Jeong, Soo Young Kim, **Myung-Gil Kim***

Mater. Res. Bull., **2021**, 138, 111241

37. Highly-Sensitive Textile Pressure Sensors Enabled by Suspended-Type All Carbon Nanotube Fiber Transistor Architecture

Jae Sang Heo, Keon Woo Lee, Jun Ho Lee, Seung Beom Shin, Jeong-Wan Jo, Yong-Hoon Kim, **Myung-Gil Kim***, Sung Kyu Park *

Micromachines **2020**, 11, 1103

36. Large Scale Synthesis of High Electrochemical Performance LiNi_{0.5}Mn_{1.5}O₄ by Polyvinylpyrrolidone Assisted Citric Acid Sol-Gel Combustion Method

Boseon Yun, Jongin Hong*, **Myung-Gil Kim***

J. Korean Phys. Soc., **2020**, 77, 332-336

35. Trends in low-temperature combustion derived thin films for solution-processed electronics

Pavan Pujar, Srinivas Gandla, Dipti Gupta*, Sunkook Kim*, Myung-Gil Kim*

Adv. Electron. Mater., **2020**, 6, 2000464

34. Microstructural Modulation of Organic Passivation Layers for Metal Oxide Semiconductors to Achieve High Bias Stability

Dongil Ho, Ha-Yun Jeong, Minh Nhut Le, Hakan Usta, Hyuck-In Kwon, **Myung-Gil Kim***, Choongik Kim*

J. Mater. Chem. C, **2020**, 8, 11209-11222

33. High-performance p-channel transistors with transparent Zn doped-CuI

Ao Liu[†], Huihui Zhu[†], Won-Tae Park, Se-Jun Kim, Hyungjun Kim, **Myung-Gil Kim***, Yong-Young Noh*
Nature Commun., **2020**, 11, 4309

32. Highly Efficient Photo-Induced Charge Separation enabled by Metal-Chalcogenide Interfaces in Quantum-Dot/Metal-Oxide Hybrid Phototransistors

Jaehyun Kim, Sung-Min Kwon, Chanho Jo, Jae-Sang Heo, Won Bin Kim, Hyun Suk Jung, Yong-Hoon Kim, **Myung-Gil Kim***, Sung Kyu Park*

ACS Appl. Mater. Interfaces **2020**, 12, 16620-16629

31. Thiostannate Coordination Transformation-Induced Self-crosslinking Chalcogenide Aerogel with Local Coordination Control and Effective Cs⁺ Remediation Functionality

Yeo Kyung Kang,[†] Heeyeoun Lee,[†] Jong Kook Won, Byungman Kang, Kyunghan Ahn, Youngtak Oh*, **Myung-Gil Kim***

J. Mater Chem A. **2020**, 8, 3468-3480.

30. A skin-like 2-dimensionally pixelized full-colour quantum dot photodetector

Jaehyun Kim, Sung-Min Kwon, Yeokyung Kang, Jeong-Wan Jo, Myung-Jae Lee, Yong-Hoon Kim, **Myung-Gil Kim***, Sung Kyu Park*

Sci. Adv., **2019**, 5, eaax8801

29. Bulk Charge Transfer Doping of Amorphous Metal Oxide:Fullerene Blend for High Performance Solution Processed Amorphous Indium Zinc Oxide Thin-Film Transistor

Le Minh Nhut[†], Hyeongyeon Kim[†], Yeokyung Kang, Xugang Guo, Choongik Kim*, **Myung-Gil Kim***

J. Mater. Chem. C, **2019**, 7, 10635

28. Controlled synthesis of SnS_xSe_{2-x} nanoplate and its application for photocatalyst

Jongkook Won, Chahwan Hwang, Seungwoo Yu, Yongkyu Lee, Jaehyun Kim, Sung Kyu Park, In Chung, Jihyun An, Minhyung Lee, **Myung-Gil Kim***

J. Solid State Chem., **2019**, 278, 120887

27. High Electron Mobility in [1]Benzothieno[3,2-b][1]benzothiophene (BTBT)-Based Field-Effect Transistors: Toward N-Type BTBTs

Hakan Usta*, Dojun Kim, Resul Özdemir¹, Yunus Zorlu, Sanghyo Kim, Seonhyoung Kim, Gökhan Demirel, Jongin Hong, Young-Geun Ha, Kilwon Cho, Antonio Facchetti*, **Myung-Gil Kim***

Chem. Mater., **2019**, 31, 5254.

26. Effect of acidity of metal-oxide support on the activity and stability of μ -nitrido diiron phthalocyanine complex as a catalyst for cyclohexane oxidation

Kwanghee Cho, Hyeongyeon Kim, Lê Minh Nhựt, **Myung-Gil Kim***, Choongik Kim*

Chem. Eng. Res. Des., **2019**, *144*, 429.

25. High throughput bar-coating processed organic-inorganic hybrid multi-layers for gas barrier thin-films
Joohyung Park[†], Jong Kook Won[†], Jun-Gu Park, Seungwoo Yu, Jihyun An, Jongin Hong, Choongik Kim,
Kang-Jun Baeg*, **Myung-Gil Kim***

J. Nanosci. Nanotechnol. **2019**, *19*, 4299

24. Facile organic surfactant removal of various dimensionality nanomaterials using low-temperature photochemical treatment

Chahwan Hwang[†], Jae Sang Heo[†], Yeokeyung Kang, Byungdoo Choi, Yong-Hoon Kim, Antonio Facchetti, Sung Kyu Park*, **Myung-Gil Kim***

RSC Adv. **2019**, *9*, 730.

23. Thermoelectric properties of nano-bulk bismuth telluride prepared with spark plasma sintered nano-plates

Kyunghan Ahn[†], Jong Kook Won[†], Youkyung Kang, Chahwan Hwang, In Chung*, **Myung-Gil Kim***
Curr. Appl. Phys. **2019**, *19*, 97.

22. Solution-Processed Rad-hard Amorphous Metal Oxide Thin-Film Transistors

Byungkyu Park[†], Dongil Ho[†], Guhyun Kwon, Dojun Kim, SungYong Seo, Choongik Kim*, **Myung-Gil Kim***
Adv. Funct. Mater., **2018**, *28*, 1802717.

21. Facile Preparation of Polyacrylic Acid-Bentonite Nanocomposite Inks for Gas Barrier Thin-Films with Ultrasonic Treatment

Dojeon Kim[†], Chahwan Hwang[†], Joohyung Park, Kang-Jun Baeg*, and **Myung-Gil Kim*** *J. Korean Phys. Soc.* **2018**, *73*, 973.

20. Room Temperature Solution Synthesized p-Type Copper(I) Iodide Semiconductors for Transparent Thin Film Transistors and Complementary Electronics

Ao Liu[†], Huihui Zhu[†], Won-Tae Park[†], Seok-Ju Kang, Yong Xu*, **Myung-Gil Kim***, Yong-Young Noh*
Adv. Mater. **2018**, *30*, 1802379.

19. Characterization of low-temperature solution-processed LiCoO₂ thin-film cathode with molecular weight control of polyvinylpyrrolidone

Seungwoo Yu[†], Chahwan Hwang[†], Do Jeon Kim, Joohyung Park, Seonhyoung Kim, Jongin Hong, Jihyun An, Tae Hoon Lee*, **Myung-Gil Kim***

Thin Solid Films, **2018**, *661*, 46.

18. High-Performance and Scalable Metal-Chalcogenide Semiconductors and Devices via Chalco-Gel Routes

Sung Min Kwon, Jongkook Won, Jeong-Wan Jo, Jaehyun Kim, Hee-Joong Kim, Hyuck-in Kwon, Jaekyun Kim, Sangdoo Ahn, Yong-Hoon Kim, Myoung-Jae Lee, Hyung-ik Lee, Tobin J. Marks*, **Myung-Gil Kim***, Sung Kyu Park*

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17. Spatial Light Patterning of Full Color Quantum Dot Displays Enabled by Locally Controlled Surface Tailoring

Han-Lim Kang, Jingu Kang, Jong Kuk Won, Su-Min Jung, Jaehyun Kim, Chan Hyuk Park, Byung-Kwon Ju*, Myung-Gil Kim*, Sung Kyu Park*

Adv. Opt. Mater. **2018**, 271, 1701335.

16. Oxidation State Control of Solution-Processed Vanadium Oxide Thin-Films and Resistive Switching of VO₂ Thin-Film in a Metastable State

Joohyung Park†, Kyunghan Ahn†, Seungwoo Yu, Ji Hyun An, Myung-Gil Kim*

Thin Solid Films **2018**, 648, 69.

15. High-Performance Quantum Dot Thin-Film Transistors with Environmentally Benign Surface Functionalization and Robust Defect Passivation

Su Min Jung†, Han Rim Kang†, Jong Kuk Won†, Kyunghan Ahn, Jaehyun Kim, Byung-Kwon Ju*, Myung-Gil Kim*, Sung Kyu Park*

ACS Appl. Mater. Interfaces **2018**, 10, 3739.

14. Optimized Activation of Solution-Processed Amorphous Oxide Semiconductors for Flexible Transparent Conductive Electrodes

Byung Doo Choi†, Joohyung Park†, Kang-Jun Baeg†, Minji Kang, Jae Sang Heo, Seonhyoung Kim, Jongkook Won, Seungwoo Yu, Kyung-Han Ahn, Jongin Hong, Dong-Yu Kim, Hakan Usta, Choongik Kim, Sung Kyu Park, Myung-Gil Kim*

Adv. Electron. Mater. **2018**, 4, 1700386.

13. Ultralow-Temperature Solution-Processed Aluminum Oxide Dielectrics via Local Structure Control of Nanoclusters

Jeong-Wan Jo†, Yong-Hoon Kim†, Joohyung Park, Jae Sang Heo, Seongpil Hwang, Won-June Lee, Myung-Han Yoon, Myung-Gil Kim*, Sung Kyu Park*

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12. Low Temperature Post-Functionalization of Highly Conductive Oxide Thin-Films Toward Solution-Based Large-Scale Electronics

Seok-Gyu Ban, Kyung-Tae Kim, Byung Doo Choi, Jeong-Wan Jo, Yong-Hoon Kim, Antonio Facchetti, Myung-Gil Kim*, Sung Kyu Park*

ACS Appl. Mater. Interfaces **2017**, 9, 26191.

11. Cooperative behavior of perfluoro carboxylic acid on cyclohexane oxidation catalyzed by μ -nitrido diiron phthalocyanine complex

Kyeongjun Seo, Hyeongyeon Kim, Jaewon Lee, Myung-Gil Kim*, SungYong Seo*, Choongik Kim*

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