

## GIL JU LEE

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Assistant Professor

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### RESEARCH INTERESTS

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**Novel photonic devices and advanced optoelectronics** including zero-energy radiative cooler, multi-functional nanophotonic devices, wearable devices, and next-generation imaging devices

- ♦ Passive radiative coolers for aesthetic purposes and enclosed space
- ♦ Bio-inspired imaging systems for next-generation cameras inspired by animal eyes
- ♦ Optoelectronic wearable devices for healthcare
- ♦ Semiconductor nanowires for optical filter, coloration, and artificial photoreceptors

### EDUCATION

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Integrated M.S/Ph.D. Degree ***GIST Presidential Fellowship***  
**Gwangju Institute of Science and Technology (GIST), Korea**  
School of Electrical Engineering and Computer Science, Sept. 2016~ Feb. 2021  
Advisor: Prof. Young Min Song

B.S. Degree ***Summa Cum Laude***  
**Pusan National University, Korea**  
Department of Electronics Engineering, Mar. 2009~ Feb. 2016

### WORK EXPERIENCES

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**Assistant Professor** (2021 – Present), EE, PNU, Republic of Korea

**Postdoctoral research associate** (Mar. 2021 – Aug. 2021), School of Electrical Engineering and Computer Science, GIST, Korea  
Advisor: Prof. Young Min Song

### AWARDS AND FELLOWSHIPS

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**Outstanding Researcher Award**, Pusan National University, Korea (2022, 2023)

**Sejong Science Fellowship**, National Research Foundation of Korea (NRF) (Mar. 2021 – Present) (130,000 USD per year)

**Haerim Prof. Un-Chul Paek award**, GIST, Korea (19 February, 2021)

**Golden Prize** (Physical Devices & Processes), the 27th Samsung HumanTech Thesis Award, Samsung Electronics, Korea (2021)

**Encouragement Award** (Material Science & Engineering), the 27th Samsung HumanTech Thesis Award, Samsung Electronics, Korea (2021)

**2020 Research Assistant Contests**, GIST, Korea (16 December, 2020)

**Robert S. Hilbert Memorial Student Travel Grant**, 2020 FiO by OSA (2020)

**2019 Research Assistant Contests**, GIST, Korea (16 December, 2019)

**Gold medal prize of 2018 Research Assistant Contests**, GIST, Korea (13 December 2018)

**The best poster awards (2nd place)** in the 5<sup>th</sup> International Conference on Electronic Materials and Nanotechnology (ENGE) for Green environment 2018, Jeju-island, Korea, November 2018

Title: "Heat reduction in wearable devices by integrating radiative photonic structure and thin metal film", **G. J. Lee**, S.-Y. Heo, and Y. M. Song

**Gold medal prize of 2017 Research Assistant Contests**, GIST, Korea (22 December 2017)

**Global Ph. D Fellowship** from National Research Foundation of Korea (NRF) (Mar. 2017 – Feb. 2021) (20,000 USD per year)

**IT Research Paper Award** in Qualcomm-GIST Innovation Award (2016)

Title: "Design of multi-band filters by stacking polymer-embedded vertical silicon nanowires"

**President's scholarship** in Gwangju Institute of Science and Technology (GIST) (Sep. 2016 – Aug. 2019).

## PUBLICATIONS

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**±: Co-first author**

**\*: Corresponding author**

54. D. H. Kim S.-Y. Heo, Y.-W. Oh, S. Jung, M. H. Kang, I.-S. Kang\*, **G. J. Lee\***, and Y. M. Song\*, "Polarization-mediated multi-state infrared system for fine temperature regulation", *APL Photonics* 8, 030801 (2023).

[[Featured article](#)], [[SCI light](#)]

53. M. Kim<sup>±</sup>, S. Chang<sup>±</sup>, M. Kim<sup>±</sup>, J.-E. Yeo, M. S. Kim, **G. J. Lee\***, D.-H. Kim\*, and Y. M. Song\*, "Cuttlefish eye-inspired artificial vision for high-quality imaging under uneven illumination conditions", *Sci. Robot.* 8, 75, ade4698 (2023). (IF: 27.541)

52. W. B. Han<sup>±</sup>, S.-Y. Heo<sup>±</sup>, D. Kim<sup>±</sup>, S. M. Yang, G.-J. Ko, **G. J. Lee**, D.-J. Kim, K. Rajaram, J. H. Lee, J.-W. Shin, T.-M. Jang, S. Han, H. Kang, J. H. Lim, D. H. Kim, S. H. Kim, Y. M. Song, and S.-W. Hwang, "Zebra-inspired stretchable, biodegradable radiation modulator for all-day sustainable energy harvesters", *Sci. Adv.* 9, 5, adf5883 (2023). (IF: 14.980)

51. M. S. Kim and **G. J. Lee\***, "Visually Hidden, Self-Assembled Porous Polymers for Optical Physically Unclonable Functions", *ACS Appl. Mater. Interfaces* (2023). (IF: 10.383)

50. Y. M. Song, C. Yu, and **G. J. Lee**, "Special Section Guest Editorial: Biomimetic Optical Microsystems", *J. Opt. Microsyst.* (2022).

49. D. H. Kim, **G. J. Lee\***, and Y. M. Song\*, "Compact zooming optical systems for panoramic and telescopic applications based on curved image sensor", *J. Opt. Microsyst.* 2(3) (2022).

48. M. Lee<sup>±</sup>, **G. J. Lee**<sup>±</sup>, H. J. Jang<sup>±</sup>, E. Joh, H. Cho, M. S. Kim, H. M. Kim, K. M. Kang, J. H. Lee, M. Kim, H. Jang, J.-E. Yeo, F. Durand, N. Lu, D.-H. Kim\*, and Y. M. Song\*, "An amphibious artificial vision system with a panoramic visual field", *Nat. Electronics* 5, 452-459 (2022).

[[Cover picture article](#)]

(IF = 33.255, Top 1% in *Engineering, Electrical & Electronic*)

47. S.-Y. Heo, **G. J. Lee\***, and Y. M. Song\*, "Heat-shedding with photonic structures: radiative cooling and its potential", *J. Mater. Chem. C* 10, 9915-9937 (2022).

(IF = 8.067, Top 15% in *Physics, Applied*)

46. S.-H. Byun, J. H. Yun, S.-Y. Heo, C. Shi, **G. J. Lee**, K.-C. Agno, K.-I. Jang, J. Xiao, Y. M. Song, J.-W. Jeong, "Self-Cooling Gallium-Based Transformative Electronics with a Radiative Cooler for Reliable Stiffness Tuning in Outdoor Use", *Adv. Sci.* 9, 24, 2202549 (2022).

[\[Cover picture article\]](#)

[\(IF = 17.521, Top 6% in \*Materials Science, Multidisciplinary\*\)](#)

45. Y. J. Yoo, J. H. Ko, **G. J. Lee**, J. Kang, M. S. Kim, S. G. Stanciu, H.-H. Jeong, D.-H. Kim\*, Y. M. Song\*, "Gires–Tournois Immunoassay Platform for Label-Free Bright-Field Imaging and Facile Quantification of Bioparticles", *Adv. Mater.* 34, 21, 2110003 (2022).

[\[Cover picture article\]](#)

[\(IF = 32.086, Top 3% in \*Materials Science, Multidisciplinary\*\)](#)

44. D. H. Seo, S.-Y. Heo, D. H. Kim, Y. M. Song\*, and **G. J. Lee\***, "Spatially-segmented colored radiative cooler with angle-robustness", *IEEE Photonics J.* 14, 2 (2022).

[\(IF = 2.252, Top 60% in \*Optics\*\)](#)

43. M. S. Kim+, **G. J. Lee+**, J. W. Leem, S. Choi, Y. L. Kim\*, and Y. M. Song\*, "Revisiting silk: a lens-free optical physical unclonable function", *Nat. Commun.* 13, 247 (2022).

[\(IF = 17.694, Top 8% in \*Multidisciplinary Sciences\*\)](#)

42. S. H. Kim, J. H. Ko, Y. J. Yoo, M. S. Kim, **G. J. Lee**, S. Ishiii, and Y. M. Song\*, "Single-Material, Near-Infrared Selective Absorber Based on Refractive Index-Tunable Tamm Plasmon Structure", *Adv. Opt. Mater.* 2102388 (2022).

[\(IF = 10.050, Top 9% in \*Optics\*\)](#)

41. S.-Y. Heo+, D. H. Kim, Y. M. Song\*, and **G. J. Lee\***, "Determining the effectiveness of radiative cooler-integrated solar cells", *Adv. Energy Mater.* 2103258 (2021).

[\[Inside cover Article\]](#)

[\(IF = 29.698, Top 4% in \*Energy&Fuels\*\)](#)

40. D. H. Kim+, **G. J. Lee+**, S.-Y. Heo, S. Son, K. M. Kang, H. Lee, and Y. M. Song\*, "Ultra-thin and near-unity selective emitter for efficient cooling", *Opt. Express* 20, 27 (2021).

[\(IF = 3.833, Top 30% in \*Optics\*\)](#)

39. S. K. Heo, J. Ha, S. J. Son, I. S. Choi, H. Lee, S. Oh, J. Jekal, M. H. Kang, **G. J. Lee**, H. H. Jung, J. Yea, T. Lee, Y. Lee, J.-W. Choi, S. Xu, J. H. Choi, J.-W. Jeong, Y. M. Song, J.-C. Rah\*, H. Keum\*, and K.-I. Jang\*, "Instant, multi-scale dry transfer printing by atomic diffusion control at heterogeneous interfaces", *Sci. Adv.* 7, eabh0040 (2021).

[\(IF = 14.972, Top 9% in \*Multidisciplinary Sciences\*\)](#)

38. Z. F. Mira, S.-Y. Heo, D. H. Kim, **G. J. Lee**, and Y. M. Song\*, "Multilayer selective passive daytime radiative cooler optimization utilizing memetic algorithm", *J. Quant. Spectrosc. Radiat. Transfer.* 272, 107774 (2021).

[\(IF = 2.342, Top 60% in \*Optics\*\)](#)

37. M. S. Kim, M. S. Kim, **G. J. Lee**, S.-H. Sunwoo, S. Chang, Y. M. Song\*, and D.-H. Kim\*, "Bio-inspired artificial vision and neuromorphic image processing devices", *Adv. Mater. Technol.* 2100144 (2021).

[\(IF = 8.856, Top 18% in \*Materials Science, Multidisciplinary\*\)](#)

36. J. H. Lee, Y. J. Kim, Y. J. Yoo, S. Chang, **G. J. Lee**, J. H. Ko, K. M. Kang, D. Chanda, and Y. M. Song\*, "Colored, covert infrared display through hybrid planar-plasmonic cavities", *Adv. Opt. Mater.* 2100429 (2021).

[\(IF = 10.050, Top 9% in \*Optics\*\)](#)

35. D. H. Kim+, **G. J. Lee+**, S.-Y. Heo, I.-S. Kang\*, and Y. M. Song\*, "Thermostat property of Janus emitter in enclosures", *Sol. Energy Mater. Sol. Cells*, 230, 111173 (2021).

[\(IF = 7.305, Top 30% in \*Energy&Fuels\*\)](#)

34. Y. Lee<sup>+</sup>, T. Kang<sup>+</sup>, H. R. Cho<sup>+</sup>, **G. J. Lee<sup>+</sup>**, O. K. Park, S. Kim, B. Lee, H. M. Kim, G. D. Cha, Y. Shin, W. Lee, M. Kim, H. Kim, Y. M. Song<sup>\*</sup>, S. H. Choi<sup>\*</sup>, T. Hyeon<sup>\*</sup>, D.-H. Kim<sup>\*</sup>, “Localized delivery of theranostic nanoparticles and high-energy photons using microneedles-on-bioelectronics”, *Adv. Mater.* 2100425 (2021).  
(IF = 32.086, Top 3% in *Materials Science, Multidisciplinary*)
33. M. H. Kang<sup>+</sup>, **G. J. Lee<sup>+</sup>**, J. H. Lee, M. S. Kim, Z. Yan, J.-W. Jeong, K.-I. Jang, and Y. M. Song<sup>\*</sup>, “Outdoor-useable, Wireless/Battery-free Patch-type Tissue Oximeter with Nano-/Micro-voids Polymer”, *Adv. Sci.* 2004885 (2021).  
(IF = 17.521, Top 6% in *Materials Science, Multidisciplinary*)  
[\[Back cover Article\]](#)
32. M. H. Kang<sup>+</sup>, **G. J. Lee<sup>+</sup>**, J. H. Yun, and Y. M. Song<sup>\*</sup>, “NFC-based Wearable Optoelectronics Working with Smartphone Application for Untact Healthcare”, *Sensors*, 21, 878 (2021).  
(IF = 3.847, Top 35% in *Engineering, Electrical & Electronic*)
31. C. Choi, J. Leem, M. S. Kim, A. Taqieddin, C. Cho, K. W. Cho, **G. J. Lee**, H. Seong, H. J. Bae, Y. M. Song, T. Hyeon, N. Aluru, S. Nam, and D.-H. Kim, “Curved neuromorphic image sensor array using a MoS<sub>2</sub>-organic heterostructure inspired by the human visual recognition system”, *Nat. Commun.* 11, 5934 (2020).  
(IF = 17.694, Top 8% in *Multidisciplinary Sciences*)
30. **G. J. Lee**, D. H. Kim, S.-Y. Heo, and Y. M. Song<sup>\*</sup>, “Spectrally and spatially selective emitters using polymer hybrid spoof plasmonics”, *ACS Appl. Mater. Interfaces* 12, 53206-53214 (2020).  
(IF = 10.383, Top 15% in *Materials Science, Multidisciplinary*)
29. S.-Y. Heo<sup>+</sup>, **G. J. Lee<sup>+</sup>**, D. H. Kim, Y. J. Kim, S. Ishii, M. S. Kim, T. J. Seok, B. J. Lee, H. Lee, and Y. M. Song<sup>\*</sup>, “A Janus emitter for passive heat release from enclosures”, *Sci. Adv.* 6, 36, eabb1906 (2020).  
(IF = 14.972, Top 9% in *Multidisciplinary Sciences*)
28. S. Chang, **G. J. Lee**, and Y. M. Song<sup>\*</sup>, “Recent Advances in Vertically Aligned Nanowires for Photonics Applications”, *Micromachines* 11, 726 (2020).  
(IF = 3.523, Top 35% in *Instruments&Instrumentation*)
27. M. S. Kim<sup>+</sup>, **G. J. Lee<sup>+</sup>**, C. Choi<sup>+</sup>, M. S. Kim<sup>+</sup>, M. Lee, S. Liu, K. W. Cho, H. M. Kim, M. K. Choi, N. Lu, Y. M. Song<sup>\*</sup>, and D.-H. Kim<sup>\*</sup>, “An aquatic-vision-inspired camera using a monocentric lens and a silicon nanorod photodiode array”, *Nat. Electronics* 3, 546-553 (2020).  
(IF = 33.255, Top 1% in *Engineering, Electrical & Electronic*)
26. **G. J. Lee**, K. Park, M. S. Kim, S. Chang, T. J. Seok, H.-G. Park, G. Ju, K. Kim, and Y. M. Song<sup>\*</sup>, “Selective and sensitive photon sieve based on III-V semiconductor nanowire forest fabricated by lithography-free process”, *Adv. Opt. Mater.* 8, 17 (2020).  
(IF = 10.050, Top 9% in *Optics*)  
[\[Back cover Article\]](#)
25. H. M. Kim, M. S. Kim, **G. J. Lee**, H. J. Jang, and Y. M. Song<sup>\*</sup>, “Miniaturized 3D Depth Sensing-Based Smartphone Light Field Camera”, *Sensors* 20, 2129 (2020).  
(IF = 3.847, Top 35% in *Engineering, Electrical & Electronic*)
24. **G. J. Lee**, H. M. Kim, and Y. M. Song<sup>\*</sup>, “Design and Fabrication of Microscale, Thin-film Silicon Solid Immersion Lenses for Mid-Infrared Application”, *Micromachines* 11, 250 (2020).  
(IF = 3.523, Top 35% in *Instruments&Instrumentation*)
23. **G. J. Lee**, Y. J. Kim, H. S. Song, D. E. Yoo, D.-W. Lee, I.-S. Kang, and Y. M. Song<sup>\*</sup>, “The Facile Implementation of Soft/Tunable Multiband Optical Filters by Stacking Vertical Silicon Nanowire Arrays for Smart Sensing”, *Adv. Intell. Syst.* 1900072 (2019).  
(IF = 7.298, Top 15% in *Robotics*)

22. H. J. Jang, Y. J. Kim, Y. J. Yoo, **G. J. Lee**, M.S. Kim, K. S. Chang, and Y. M. Song\*, “Double-Sided Anti-Reflection Nanostructures on Optical Convex Lenses for Imaging Applications”, *Coatings* 9, 404 (2019).  
(IF = 3.236, Top 45% in *Materials Science, Coatings&Films*)
21. V. Siva, K. W. Park, M. S. Kim, Y. J. Kim, **G. J. Lee**, M. J. Kim and Y. M. Song\*, “Mapping the Structural, Electrical, and Optical Properties of Hydrothermally Grown Phosphorus-doped ZnO Nanorods for Optoelectronic Device Applications”, *Nanoscale Res. Lett.* 14, 110 (2019).  
(IF = 5.418, Top 25% in *Physics, Applied*)
20. Y. J. Kim, Y. J. Yoo, **G. J. Lee**, D. E. Yoo, D. W. Lee, V. Siva, H. S. Song, I. S. Kang, and Y. M. Song\*, “Enlarged Color Gamut Representation Enabled by Transferable Silicon Nanowire Arrays on Metal–Insulator–Metal Films”, *ACS Appl. Mater. Interfaces* 11, 11849 (2019).  
(IF = 10.383, Top 15% in *Materials Science, Multidisciplinary*)
19. H. S. Song+, **G. J. Lee**+, D. E. Yoo, Y. J. Kim, Y. J. Yoo, D. W. Lee, V. Siva, I. S. Kang and Y. M. Song\*, “Reflective color filter with precise control of the color coordinate achieved by stacking silicon nanowire arrays onto ultrathin optical coatings”, *Sci. Reports* 9, 3350 (2019).  
(IF = 4.996, Top 25% in *Multidisciplinary Sciences*)
18. H. M. Kim+, M. S. Kim+, **G. J. Lee**+, Y. J. Yoo and Y. M. Song\*, “Large area fabrication of engineered microlens array with low sag height for light-field imaging”, *Opt. Express* 27, 4 (2019).  
(IF = 3.833, Top 30% in *Optics*)
17. **G. J. Lee**, Y. J. Kim, H. M. Kim, Y. J. Yoo, Y. M. Song\*, “Colored, Daytime Radiative Coolers with Thin-Film Resonators for Aesthetic Purposes”, *Adv. Opt. Mater.* 1800707 (2018).  
(IF = 10.050, Top 9% in *Optics*)  
[Cover Picture Article]  
[Selected as Top 10 Nanotechnology in 2019]
16. Y. J. Kim, **G. J. Lee**, S. K. Kim, J. W. Min, S. Y. Jeong, Y. J. Yoo, S. H. Lee, Y. M. Song\*, “Efficient Light Absorption by GaN Truncated Nanocones for High Performance Water Splitting Applications” *ACS Appl. Mater. Interfaces* 10, 28672 (2018).  
(IF = 10.383, Top 15% in *Materials Science, Multidisciplinary*)
15. K. J. Ko, H. B. Lee, H. M. Kim, **G. J. Lee**, S. R. Shin, N. Kumar, Y. M. Song, J. W. Kang\*, “High-performance, color-tunable fiber shaped organic light-emitting diodes”, *Nanoscale* 10, 16184 (2018).  
(IF = 8.307, Top 15% in *Physics, Applied*)
14. H. M. Kim+, **G. J. Lee**+, M. S. Kim, and Y. M. Song\*, “Fabrication of Flexible Image Sensor Based on Lateral NIPIN Phototransistors”, *J. Vis. Exp.* 136, e57502 (2018).  
(IF = 1.424, Top 70% in *Multidisciplinary Sciences*)
13. S. Y. Jeong, H. M. Shin, Y. R. Jo, Y. J. Kim, S.K. Kim, W. J. Lee, **G. J. Lee**, J. S. Song, B. J. Moon, S. H. Seo, H. J. An, S. H. Lee, Y. M. Song, B. J. Kim, M. H. Yoon, and S. H. Lee\*, “Plasmonic Silver Nanoparticle-Impregnated Nanocomposite BiVO<sub>4</sub> Photoanode for Plasmon-Enhanced Photocatalytic Water Splitting”, *J. Phys. Chem. C.* 122, 7088 (2018).  
(IF = 4.177, Top 50% in *Chemistry, Physical*)
12. **G. J. Lee**, C. S. Choi, D.-H. Kim\*, Y. M. Song\*, “Bioinspired Artificial Eyes: Optic Components, Digital Cameras, and Visual Prostheses”, *Adv. Funct. Mater.* 2018, 1705202 (2018).  
(IF = 19.924, Top 5% in *Materials Science, Multidisciplinary*)  
[Back cover Article]
11. C. Choi, M. K. Choi, S. Liu, M. S. Kim, C. Im, O. K. Park, J. Kim, **G. J. Lee**, K. W. Cho, M. Kim, E. Joh, J. Lee, D. Son, S.-H. Kwon, N. L. Jeon, Y. M. Song, N. Lu, and D.-H. Kim, “Human eye-inspired soft optoelectronic device using high-density MoS<sub>2</sub>-graphene curved image sensor array”, *Nat. Commun.* 8, 15894 (2017).

(IF = 17.694, Top 8% in *Multidisciplinary Sciences*)

10. H. S. Song, Y. J. Yoo, **G. J. Lee**, K. S. Chang, Y. M. Song, “Optical Design of Porous ZnO/TiO<sub>2</sub> Films for Highly Transparent Glasses with Broadband Ultraviolet Protection”, *J. Nanomater.* 2738015, 8 (2017).

(IF = 3.791, Top 50% in *Materials Science, Multidisciplinary*)

9. Y. J. Yoo, **G. J. Lee**, K. I. Jang, Y. M. Song, “Fabrication of Ultra-thin Color Films with Highly Absorbing Media Using Oblique Angle Deposition”, *J. Vis. Exp.* 126, e56383 (2017).

(IF = 1.424, Top 70% in *Multidisciplinary Sciences*)

8. M. S. Kim+, **G. J. Lee**+, H. M. Kim, Y. M. Song, “Parametric Optimization of Lateral NIPIN Phototransistors for Flexible Image sensors”, *Sensors* 17, 1774 (2017).

(IF = 3.847, Top 35% in *Engineering, Electrical & Electronic*)

7. **G. J. Lee**, Y. J. Yoo, and Y. M. Song, “Recent advances in imaging systems and photonic nanostructures inspired by insect eye geometry”, *Appl. Spectrosc. Rev.* 1 (2017).

(IF = 5.010, Top 9% in *Spectroscopy*)

6. **G. J. Lee**, W. I. Nam, and Y. M. Song, “Robustness of an artificially tailored fisheye imaging system with a curvilinear image surface”, *Opt. Laser Technol.* 96, 50 (2017).

(IF = 4.939, Top 20% in *Optics*)

5. Y. J. Yoo, J. H. Lim, **G. J. Lee**, K.-I. Jang, and Y. M. Song, “Ultra-thin films with highly absorbent porous media fine-tunable for coloration and enhanced color purity”, *Nanoscale* 9, 2986-2991 (2017).

(IF = 8.307, Top 15% in *Physics, Applied*)

[\[Cover Picture Article\]](#)

4. J.-K. Song, D. H. Son, J. M. Kim, Y. J. Yoo, **G. J. Lee**, L. Wang, M. K. Choi, J. W. Yang, M. C. Lee, K. S. Do, J. H. Koo, N. Lu, J. H. Kim, T. H. Hyeon, Y. M. Song, and D.-H. Kim, “Wearable Force Touch Sensor Array Using a Flexible and Transparent Electrode”, *Adv. Func. Mater.* 27, 6, 1605286 (2017).

(IF = 19.924, Top 5% in *Materials Science, Multidisciplinary*)

3. K. W. Choi, Y. W. Yoon, J. H. Jung, C. W. Ahn, **G. J. Lee**, Y. M. Song, M. J. Ko, H. S. Lee, B. S. Kim, and I.-S. Kang, “Super-Antireflective Structure Films with Precisely Controlled Refractive Index Profile”, *Adv. Opt. Mater.* 5, 3, 1600616 (2016).

[\[Cover Picture Article\]](#)

2. **G. J. Lee** and Y. M. Song, “Theoretical analysis and experiment of subwavelength structure-integrated red AlGaInP light-emitting diodes for uniform field distribution and enhanced light extraction efficiency”, *AIP Adv.* 6, 035104 (2016).

1. H. M. Kim, S. H. Kim, **G. J. Lee**, K. J. Kim and Y. M. Song, “Parametric studies on artificial Morpho butterfly wing scales for optical device applications”, *J. Nanomater.* 2015, 451834 (2015).

## ACADEMIC SERVICES

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Editorial board member for **Frontiers in Electronics** (Frontiers)

Guest Editor for **Journal of Optical Microsystems** (SPIE)

Reviewer for

**Applied Optics** (Optica), **Optics Materials Express** (Optica)

**Scientific Reports** (NPG)

**IEEE Photonics Journals** (IEEE)

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