

# Guijun Li (Mitch)

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*Assistant Professor*, Division of Integrative Systems and Design

*Assistant Professor*, Department of Electronic and Computer Engineering

*Associate Director*, Center for Smart Manufacturing

*Co-PI*, Joint Lab for Wave Functional Materials Research

*Member*, State Key Laboratory of Advanced Displays and Optoelectronics Technologies

The Hong Kong University of Science and Technology

Website: <https://limg.hkust.edu.hk> | Email: [mitchli@ieee.org](mailto:mitchli@ieee.org) | Tel: +852 34692958

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## Research Profile

Google Scholar: 1-j83GUAAAAJ | H-index: 28 | Citation: 2625

ResearcherID: N-6865-2013 | H-index: 25 | Citation: 2129

Scopus: 58265313100 | H-index: 26 | Citation: 2278

ORCID: 0000-0001-6259-3209

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## Working Experience

*Research Assistant Professor (independent)*

The Hong Kong Polytechnic University

Dec 2018-Dec 2020

*Postdoctoral Fellow*

The Hong Kong Polytechnic University

Jul 2016-Dec 2018

*Research Associate*

The Hong Kong Polytechnic University

Jul 2014-Jun 2016

*Research Scientist*

The University of Hong Kong

Sep 2013-Jun 2014

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## Education

*Ph.D.*, Electrical and Electronic Engineering

The University of Hong Kong, HKSAR

Supervisor: Dr. Philip W. T. Pong (Email: [philip.pong@njit.edu](mailto:philip.pong@njit.edu))

Sep 2009-Aug 2013

*B.Sc.*, Condensed Matter Physics

Nanjing University, China

Supervisor: Prof. Shining Zhu (Email: [zhusun@nju.edu.cn](mailto:zhusun@nju.edu.cn))

Sep 2005-Jun 2009

# Teaching

## HKUST

*ISDN2400, Physical Prototyping*

- Spring 2020-2021
- Spring 2021-2022

*ISDN2603, Materials, Shape and Design* (developed at HKUST)

- Spring 2022-2023
- Fall 2023-2024

*ISDN5400/ISDN 6810A, Advanced Manufacturing* (developed at HKUST)

- Spring 2021-2022
- Fall 2022-2023
- Spring 2023-2024

*ISDN4000K, Materials for Physical Prototyping* (developed at HKUST)

- Winter 2021-2022

*ISDN4000U, Design with 3D Visual Communication Technologies* (developed at HKUST)

- Spring 2023-2024

## PolyU

*ISE3006, Materials and Processes Selection*

- Fall 2019-2020

*ISE373, Packaging and Storage Technology*

- Fall 2019-2020
- Fall 2020-2021

*ISE374, Logistics Facility Design*

- Fall 2019-2020
- Fall 2020-2021

*ENG1003, Freshman Seminar*

- Fall 2019-2020
- Fall 2020-2021

*ISE3S01, Engineering for the Needy*

- Fall 2019-2020
- Fall 2020-2021

*ISE2S02, Comprehending and Overcoming Learning Hurdles in STEM for Local Schools*

- Fall 2019-2020
- Fall 2020-2021

## Departmental Service

- Represent ISD to showcase RGC research during the RGC visit Jun 8, 2023
- Promotion of ISD by food 3D printing show at Science Museum of Hong Kong, Mar 28, 2024
- Promotion of ISD by NowTV interview on 3D food printing technology Dec 25, 2023
- Promotion of ISD by showing 3D printing food technology to LegCo Oct 3, 2023
- Promotion of ISD by sharing 3D printed mooncake to Mr. John Lee, Chief Executive of Hong Kong, Sep 28, 2023

Member of

- ISD UG Student Affair sub-committee
  - ISD UG Recruitment and Admission sub-committee
  - ISD PG Committee
  - ISD Research Committee
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## Professional Service

- **Senior Member of IEEE**, Jan 2019 - now
  - **Associate Editor**, IEEE Access, Sep 2019 - now
  - **Young Editorial Board Member**, Nano-Micro Letters, July 2023 - now
  - **Chair**, IEEE Magnetic Society Hong Kong Chapter, Jan 2021 - Jan 2023
  - **Vice-Chair**, IEEE Hong Kong Joint Chapter on Electron Devices and Solid-State Circuits, Jan 2020 - Jan 2023
  - **Chairman**, 1<sup>st</sup> Hong Kong Magnetic Levitation Competition for Secondary School Students, Hong Kong, July 2021
  - **Session Chair**, The 15<sup>th</sup> Joint MMM-INTERMAG Conference, New Orleans, Jan 2022
  - **Member of International Science Committee**, 9<sup>th</sup> International Conference of Asian Society for Precision Engineering and Nanotechnology, Singapore, Nov 2022
  - **Session Chair**, 2023 Hong Kong Battery Symposium, Hong Kong, 4 Jan 2023
  - **Session Chair**, The 10<sup>th</sup> International Conference of Asian Society for Precision Engineering and Nanotechnology (ASPEN) 2023, Hong Kong, 24 Nov 2023
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## Awards

- **Excellent Young Scholar Award**, The 3<sup>rd</sup> China Metamaterials Conference, 2024
- **Silver Medal**, 49<sup>th</sup> International Exhibition of Inventions Geneva, 2024
- **World Top 2% Most-Cited Scientists by Stanford**, 2023
- **Emerging investigator**, Journal of Materials Chemistry C, Royal Society of Chemistry, 2020
- **Outstanding Reviewer**, RSC Advances, Royal Society of Chemistry, 2020
- **Young Scientist Award**, Optoelectronic Global Conference, IEEE Photonic Society, 2019
- **Publons Peer Review Awards**, Top 1% of peer reviewers, 2017

## Grant Records

### **Scalable manufacturing of antiviral self-cleaning surfaces against respiratory infectious diseases**

*RGC Collaborative Research Fund - Young Collaborative Research Grant Scheme*

Amount: 4,169,826 HKD

Project ID: C6001-22Y

Period: 06/2023-05/2026

Capacity: **Project Coordinator (PC)**

### **Performance Control and Microstructure Analysis of Clay Mineral-based Cathode Materials for Lithium-sulfur Batteries**

*ITC Mainland-Hong Kong Joint Funding Scheme*

Amount: 5,622,647 HKD

Project ID: MHP/060/21

Period: 09/2022-08/2024

Capacity: **Principal Investigator (PI)**

### **Mass transportation and photothermal phenomena in laser manufactured solar steam generator**

*RGC Early Career Scheme*

Amount: 791,961 HKD

Project ID: 25201620

Period: 01/2021-12/2023

Capacity: **Principal Investigator (PI)**

### **Portable thermal sterilizer for surgical masks with laser-induced graphene**

*UGC Bridge Gap Fund*

Amount: 250,000 HKD

Project ID: NA475

Period: 07/2021-06/2022

Capacity: **Principal Investigator (PI)**

### **Advanced laser manufacturing of antimicrobial armor on public facilities to protect against the spread of COVID-19**

*University Development Grant*

Amount: 200,000 HKD

Project ID: DG22EG03

Period: 07/2021-12/2021

Capacity: **Principal Investigator (PI)**

### **Laser-induced forward transfer of graphene on ultra-precision machined substrates**

*State Key Laboratory in Ultraprecision Machining Technology Fund*

Amount: 250,000 HKD

Project ID: BBX9

Period: 04/2019-03/2021

Capacity: **Principal Investigator (PI)**

## Representative Publication

### HKUST

- Y. Chen, M. Tan, R. Yang, C. K. W. Lee, H. Zhong, Y. Xu, Y. Huang, M. Tang, **G. Li\***, "Laser-Guided Self-Assembly of Thin Films into Micro-Rolls", *Adv. Funct. Mater.* 34, 2400090, 2024 (Inside Front Cover)
- Y. Huang, H. Zhong, R. Yang, Y. Pan, J. Lin, C. K. W. Lee, S. Chen, M. Tan, X. Lu, W. Y. Poon, Q. Yuan and **G. Li\***, "Multifunctional Laser-induced Graphene Circuits and Laser-printed Nanomaterials toward Non-invasive Human Kidney Function Monitoring", *Biosensors and Bioelectronics*, 259, 116386, 2024.
- H. Liu, H. Zhong, Q. Yuan, R. Yang, M. Kim, Y. H. T. Chan, S. Chen, J. Lin, and **G. Li\***, "Roll-to-Roll Manufacturing of Breathable Superhydrophobic Membranes", *Small Methods*, 2400038, 2024.
- M. Tang, H. Zhong, X. Lu, R. Yang, C. K. W. Lee, Y. Pan, Y. Chen, and **G. Li\***, "In-situ Electrical Impedance Tomography for Visualizing Water Transportation in Hygroscopic Aerogels", *Advanced Science*, 2024. DOI: 10.1002/advs.202402676
- Y. Huang, R. Yang, H. Zhong, C. K. W. Lee, Y. Pan, M. Tan, Y. Chen, N. Jiang, and **G. Li\***, "High-Throughput Automatic Laser Printing Strategy toward Cost-effective Portable Integrated Urea Tele-Monitoring System", *Small Methods*, 8, 2301184, 2023.

### PolyU

- H. Zhong, Z. Zhu, J. Lin, C. F. Cheung, V. L. Lu, F. Yan, C.-Y. Chan, and **G. Li\***, "Reusable and Recyclable Graphene Masks with Outstanding Superhydrophobic and Photothermal Performances", *ACS Nano*, 14, 6213–6221, 2020. (citation: 335)
- H. Zhong, Z. Zhu, P. You, J. Lin, C. F. Cheung, V. L. Lu, F. Yan, C.-Y. Chan, and **G. Li\***, "Plasmonic and Superhydrophobic Self-Decontaminating N95 Respirators", *ACS Nano*, 14, 8846–8854, 2020.(citation: 105)

## Summary of Selective Publication

| Journal                           | Impact Factor | Count in HKUST | Count all |
|-----------------------------------|---------------|----------------|-----------|
| Energy & Environmental Science    | 32.5          | 0              | 1         |
| Advanced Materials                | 29.4          | 1              | 3         |
| Science Robotics                  | 25            | 1              | 1         |
| Advanced Functional Materials     | 19            | 1              | 2         |
| Nano Energy                       | 17.6          | 1              | 1         |
| ACS Nano                          | 17.1          | 0              | 2         |
| Angewandte Chemie                 | 16.6          | 0              | 1         |
| Advanced Science                  | 15.1          | 2              | 3         |
| Small                             | 13.3          | 1              | 1         |
| Biosensors and Bioelectronics     | 12.6          | 1              | 1         |
| Small Methods                     | 12.4          | 2              | 2         |
| Journal of Materials Chemistry A  | 11.9          | 0              | 2         |
| Nano Research                     | 9.9           | 0              | 1         |
| Green Chemistry                   | 9.8           | 0              | 2         |
| ACS Applied Materials & Interface | 9.5           | 0              | 2         |
| Materials Today Energy            | 9.3           | 0              | 1         |
| ACS Sensors                       | 8.9           | 1              | 1         |
| Topics in Current Chemistry       | 8.6           | 1              | 1         |

## Full Publication List

1. Y. Chen, M. Tan, R. Yang, C. K. W. Lee, H. Zhong, Y. Xu, Y. Huang, M. Tang, and **G. Li\***, "Laser-Guided Self-Assembly of Thin Films into Micro-Rolls," *Advanced Functional Materials*, 2400090, 2024.
2. H. Liu, H. Zhong, Q. Yuan, R. Yang, M. Kim, Y. H. T. Chan, S. Chen, J. Lin, and **G. Li\***, "Roll-to-Roll Manufacturing of Breathable Superhydrophobic Membranes," *Small Methods*, 2400038, 2024.
3. M. Tang, H. Zhong, X. Lu, R. Yang, C. K. W. Lee, Y. Pan, Y. Chen, and **G. Li\***, "In-situ Electrical Impedance Tomography for Visualizing Water Transportation in Hygroscopic Aerogels," *Advanced Science*, 2024. DOI: 10.1002/advs.202402676
4. Y. Huang, H. Zhong, R. Yang, Y. Pan, J. Lin, C. K. W. Lee, S. Chen, M. Tan, X. Lu, W. Y. Poon, Q. Yuan and **G. Li\***, *Biosensors and Bioelectronics*, 2024, DOI:10.1016/j.bios.2024.116386.
5. Y. Xu, J. Lin, Y. Chen, H. Zhong, C. K. W. Lee, M. Tan, S. Chen, M. Kim, E. W. Y. Poon, T. Y. H. Chan, A. Q. Yuan, M. Tang, R. Yang, Y. Pan, Y. Fu, and **G. Li\***, "Highly Efficient Cash Sterilization with Ultrafast and Flexible Joule-Heating Strategy by Laser Patterning," *Advanced Materials Interfaces*, 2024.
6. Y. Zhou, Z. Sun, Y. Ding, Z. Yuan, X. Qiu, Y. B. Cao, Z. Wan, Z. Long, S. Poddar, S. Kumar, W. Ye, C. L. J. Chan, D. Zhang, B. Ren, Q. Zhang, H.-S. Kwok, **G. Li**, and Z. Fan, "An ultra-wide field-of-view pinhole compound eye using hemispherical nanowire array for robot vision," *Science Robotics*, 2024.
7. R. Ao, Z. Zhu, S. Zhang, Q. Zhang, C. Yan, F. Tu, T. Li, **G. Li**, L. Fu, A. Tang, and H. Yang, "Halloysite-derived mesoporous silica with high ionic conductivity improves Li-S battery performance," *Chemical Communications*, D4CC01111B, 2024.
8. Y. Huang, R. Yang, H. Zhong, C. K. W. Lee, Y. Pan, M. Tan, Y. Chen, N. Jiang, and **G. Li\***, "High-Throughput Automatic Laser Printing Strategy toward Cost-effective Portable Integrated Urea Tele-Monitoring System," *Small Methods*, 2301184, 2023.
9. C. K. W. Lee, Y. Pan, R. Yang, M. Kim, and **G. Li\***, "Laser-Induced Transfer of Functional Materials," *Topics in Current Chemistry*, 381, 18, 2023.
10. D. Xu, H. Zhong, **G. Li**, S. S. To, L. Lu, Efficient plasmonic enhanced solar evaporation achieved by laser-assisted Cu /Graphene nanocomposite. *Carbon* 204, 231–237, 2023.
11. H.-L. Loi, J. Cao, C.-K. Liu, Y. Xu, **G. Li**, and F. Yan, "Highly Sensitive Broadband Phototransistors Based on Gradient Tin/Lead Mixed Perovskites," *Small*, 19, 2205976, 2023.
12. D. Zhang, Y. Zhu, R. Jiao, J. Zhou, Q. Zhang, S. Poddar, B. Ren, X. Qiu, B. Cao, Y. Zhou, C. Wang, K.-F. Wang, Y. Zi, H. Zeng, **G. Li**, H. Yu, Q. Zhou, and Z. Fan, "Metal seeding growth of three-dimensional perovskite nanowire forests for high-performance stretchable photodetectors," *Nano Energy*, 111, 108 386, 2023.
13. T. Wang, H.-L. Loi, J. Cao, Z. Qin, Z. Guan, Y. Xu, H. Cheng, **G. Li**, C.-S. Lee, X. Lu, and F. Yan, "High Open Circuit Voltage Over 1 V Achieved in Tin-Based Perovskite Solar Cells with a 2D/3D Vertical Heterojunction," *Advanced Science*, 2200242, 2022.
14. H. Yu, H. Zhang, J. Li, Z. Zhao, M. Deng, Z. Ren, Z. Li, C. Xue, **G. Li**, and Z. Chen, "Rapid and Unamplified Detection of SARS-CoV-2 RNA via CRISPR-Cas13a-Modified Solution-Gated Graphene Transistors," *ACS Sensors*, 7, 3923–3932, 2022.
15. J. Cao, H.-L. Loi, Y. Xu, X. Guo, N. Wang, C.-k. Liu, T. Wang, H. Cheng, Y. Zhu, **G. Li**, W.-Y. Wong, and F. Yan, "High-performance tin-lead mixed perovskite solar cells with vertical compositional gradient," *Advanced Materials*, 2107729, 2021.
16. N. Jiang, Y. Wang, K. C. Chan, C.-Y. Chan, H. Sun\*, and **G. Li\***, "Additive Manufactured Graphene Coating with Synergistic Photothermal and Superhydrophobic Effects for Bactericidal Applications," *Global Challenges*, 4, 1900054, 2020.

17. **G. Li\***, “Direct laser writing of graphene electrodes,” *Journal of Applied Physics*, 127, 10901, 2020.
18. J. Lin, Z. Zhu, C. F. Cheung, F. Yan, and **G. Li\***, “Digital manufacturing of functional materials for wearable electronics,” *Journal of Materials Chemistry C*, 8, 10587–10603, 2020.
19. Z. Meng, **G. Li**, S.-C. Yiu, N. Zhu, Z.-Q. Yu, C.-W. Leung, I. Manners, and W.-Y. Wong, “Nanoimprint Lithography-Directed Self-Assembly of Bimetallic Iron–M (M=Palladium, Platinum) Complexes for Magnetic Patterning,” *Angew. Chem.*, 59, 11521–11526, 2020.
20. Y. Wang, **G. Li**, and K. C. Chan, “Cost-effective and eco-friendly laser-processed cotton paper for high-performance solar evaporation,” *Solar Energy Materials and Solar Cells*, 218, 110693, 2020.
21. P. You, **G. Li**, G. Tang, J. Cao, and F. Yan, “Ultrafast laser-annealing of perovskite films for efficient perovskite solar cells,” *Energy & Environmental Science*, 13, 1187–1196, 2020.
22. H. Zhong, Z. Zhu, J. Lin, C. F. Cheung, V. L. Lu, F. Yan, C.-Y. Chan, and **G. Li\***, “Reusable and Recyclable Graphene Masks with Outstanding Superhydrophobic and Photothermal Performances,” *ACS Nano*, 14, 6213–6221, 2020.
23. H. Zhong, Z. Zhu, P. You, J. Lin, C. F. Cheung, V. L. Lu, F. Yan, C.-Y. Chan, and **G. Li\***, “Plasmonic and Superhydrophobic Self-Decontaminating N95 Respirators,” *ACS Nano*, 14, 8846–8854, 2020.
24. J. Huang, K. C. Yung, **G. Li**, Z. Wei, and Z. Meng, “Laser-Reduced Zeolite Imidazole Framework-67 as Magnetic Absorbents for Oil Separation in Water,” *IEEE Magnetics Letters*, 10, 6101303, 2019.
25. **G. Li**, Z. Meng, J. Qian, C.-L. Ho, S. P. Lau, W.-Y. Wong, and F. Yan, “Inkjet-printed pseudocapacitive electrodes on laser-induced graphene for electrochemical energy storage,” *Materials Today Energy*, 12, 155–160, 2019.
26. **G. Li**, X. Mo, W.-C. Law, and K. C. Chan, “3D printed graphene/nickel electrodes for high areal capacitance electrochemical storage,” *Journal of Materials Chemistry A*, 7, 4055–4062, 2019.
27. **G. Li**, X. Mo, W.-C. Law, and K. C. Chan, “Wearable Fluid Capture Devices for Electrochemical Sensing of Sweat,” *ACS Applied Materials & Interfaces*, 11, 238–243, 2019.
28. **G. Li**, X. Mo, Y. Wang, C.-Y. Chan, and K. C. Chan, “All 3D-Printed Superhydrophobic/Oleophilic Membrane for Robotic Oil Recycling,” *Advanced Materials Interfaces*, 6, 1900874, 2019.
29. Z. Meng, C.-L. Ho, H.-F. Wong, Z.-Q. Yu, N. Zhu, **G. Li**, C.-W. Leung, and W.-Y. Wong, “Lithographic patterning of ferromagnetic FePt nanoparticles from a single-source bimetallic precursor containing hemiphase structure for magnetic data recording media,” *SCIENCE CHINA Materials*, 62, 566, 2019.
30. Z. Meng, F. Xiao, Z. Wei, X. Guo, Y. Zhu, Y. Liu, **G. Li**, Z.-Q. Yu, M. Shao, and W.-Y. Wong, “Direct synthesis of L10-FePt nanoparticles from single-source bimetallic complex and their electrocatalytic applications in oxygen reduction and hydrogen evolution reactions,” *Nano Research*, 12, 2954–2959, 2019.
31. S.-C. Yiu, A. Nunns, C.-L. Ho, J. H.-L. Ngai, Z. Meng, **G. Li**, J. Gwyther, G. R. Whittell, I. Manners, and W.-Y. Wong, “Nanostructured Bimetallic Block Copolymers as Precursors to Magnetic FePt Nanoparticles,” *Macromolecules*, 52, 3176–3186, 2019.
32. H. Jiang, J. Feng, H. Zhao, **G. Li**, G. Yin, Y. Han, F. Yan, Z. Liu, and S. Liu, “Low Temperature Fabrication for High Performance Flexible CsPbI<sub>2</sub>Br Perovskite Solar Cells,” *Advanced Science*, 5, 1801117, 2018.
33. **G. Li**, W.-C. Law, and K. C. Chan, “Floating, Highly Efficient, and Scalable Graphene Membranes for Seawater Desalination using Solar Energy,” *Green Chemistry*, 20, 3689–3695, 2018.
34. Z. Meng, C.-L. Ho, **G. Li**, S.-M. Ng, H.-F. Wong, C.-W. Leung, and W.-Y. Wong, “Edge decoration of MoS<sub>2</sub> monolayer with ferromagnetic CoFe nanoparticles,” *Materials Research Express*, 5, 115010, 2018.

35. J. Qian, Y. S. Chui, **G. Li**, M. Lin, C. M. Luk, C. H. Mak, B. Zhang, F. Yan, and S. P. Lau, "Kinetically controlled redox behaviors of  $\text{K}_0.3\text{MnO}_2$  electrodes for high performance sodium-ion batteries," *Journal of Materials Chemistry A*, 6, 10803–10812, 2018.
36. J. Huang, K. C. Yung, Z. Meng, D. T. C. Ang, and **G. Li\***, "Additive Manufacturing of Cobalt-Based Organic Ferromagnetic Materials," *IEEE Magnetics Letters*, 8, 2104405, 2017.
37. J. Li, S. Yuan, G. Tang, **G. Li**, D. Liu, J. Li, X. Hu, Y. Liu, J. Li, Z. Yang, S. F. Liu, Z. Liu, F. Gao, and F. Yan, "High-Performance, Self-Powered Photodetectors Based on Perovskite and Graphene," *ACS Applied Materials & Interfaces*, 9, 42779–42787, 2017.
38. S. Liu, Y. Fu, **G. Li**, L. Li, H. K.-w. Law, X. Chen, and F. Yan, "Conjugated Polymer for Voltage-Controlled Release of Molecules," *Advanced Materials*, 29, 1701733, 2017.
39. Z. Meng, **G. Li**, H.-F. Wong, S.-M. Ng, S.-C. Yiu, C.-L. Ho, C.-W. Leung, I. Manners, and W.-Y. Wong, "Patterning of  $\text{L1}(0)$  FePt nanoparticles with ultra-high coercivity for bit-patterned media," *Nanoscale*, 9, 731–738, 2017.
40. Z. Meng, **G. Li**, N. Zhu, C.-L. Ho, C.-W. Leung, and W.-Y. Wong, "One-pot synthesis of ferromagnetic FePd nanoparticles from single-source organometallic precursors and size effect of metal fraction in polymer chain," *Journal of Organometallic Chemistry*, 849-850, 10–16, 2017.
41. Z. Meng, **G. Li**, S.-M. Ng, H.-F. Wong, S.-C. Yiu, C.-L. Ho, C.-W. Leung, and W.-Y. Wong, "Nanopatterned  $\text{L1}(0)$ -FePt nanoparticles from single-source metallopolymer precursors for potential application in ferromagnetic bit-patterned media magnetic recording," *Polymer Chemistry*, 7, 4467–4475, 2016.
42. S. M. Ng, H. F. Wong, W. C. Wong, C. K. Tan, S. Y. Choi, C. L. Mak, **G. Li**, Q. C. Dong, and C. W. Leung, "WS<sub>2</sub> nanotube formation by sulphurization: Effect of precursor tungsten film thickness and stress," *Materials Chemistry and Physics*, 181, 352–358, 2016.
43. W. K. C. Yung, B. Sun, J. Huang, Y. Jin, Z. Meng, H. S. Choy, Z. Cai, **G. Li\***, C. L. Ho, J. Yang, and W. Y. Wong, "Photochemical Copper Coating on 3D Printed Thermoplastics," *Scientific Reports*, 6, 31188, 2016.
44. W. K. C. Yung, B. Sun, Z. Meng, J. Huang, Y. Jin, H. S. Choy, Z. Cai, **G. Li\***, C. L. Ho, J. Yang, and W. Y. Wong, "Additive and Photochemical Manufacturing of Copper," *Scientific Reports*, 6, 39584, 2016.
45. Q. Dong, **G. Li**, H. Wang, P. W.-T. Pong, C.-W. Leung, I. Manners, C.-L. Ho, H. Li, and W.-Y. Wong, "Investigation of pyrolysis temperature in the one-step synthesis of  $\text{L1}(0)$  FePt nanoparticles from a FePt-containing metallopolymer," *Journal of Materials Chemistry C*, 3, 734–741, 2015.
46. J. Wu, R. Wang, H. Yu, **G. Li**, K. Xu, N. C. Tien, R. C. Roberts, and D. Li, "Inkjet-printed microelectrodes on PDMS as biosensors for functionalized microfluidic systems," *Lab on a Chip*, 15, 690–695, 2015.
47. W. K. C. Yung, **G. Li**, H. M. Liem, H. S. Choy, and Z. Cai, "Eye-friendly reduced graphene oxide circuits with nonlinear optical transparency on flexible poly(ethylene terephthalate) substrates," *Journal of Materials Chemistry C*, 3, 11294–11299, 2015.
48. Q. Dong, **G. Li**, C.-L. Ho, C.-W. Leung, P. W.-T. Pong, I. Manners, and W.-Y. Wong, "Facile Generation of  $\text{L1}(0)$ -FePt Nanodot Arrays from a Nanopatterned Metallopolymer Blend of Iron and Platinum Homopolymers," *Advanced Functional Materials*, 24, 857–862, 2014.
49. S. Gupta, **G. Li**, R. C. Roberts, and L. J. Jiang, "Log-periodic dipole array antenna as chipless RFID tag," *Electronics Letters*, 50, 339–340, 2014.
50. X. Li, K. W. Lin, H. Y. Liu, D. H. Wei, **G. Li**, and P. W. T. Pong, "Effect of field cooling process and ion-beam bombardment on the exchange bias of NiCo/(Ni, Co)O bilayers," *Thin Solid Films*, 570, 383–389, 2014.
51. **G. Li**, C. W. Leung, Y. C. Chen, J. H. Hsu, A. C. Sun, K. W. Lin, and P. W. T. Pong, "Effect of Oxygen Stoichiometry on Microstructural and Magnetic Properties of FePt/TaO Bilayer Fabricated by Ion-Beam-Bombardment Deposition," *IEEE Transactions on Magnetics*, 49, 3310–3313, 2013.



52. **G. Li**, Q. Dong, J. Xin, C. W. Leung, P. T. Lai, W.-Y. Wong, and P. W. T. Pong, "Patterning micro- and nano-structured FePt by direct imprint lithography," *Microelectronic Engineering*, 110, 192–197, 2013.
53. **G. Li**, C. W. Leung, Y.-C. Chen, K.-W. Lin, A.-C. Sun, J.-H. Hsu, and P. W. T. Pong, "Effect of annealing temperature on microstructure and magnetism of FePt/TaOx bilayer," *Microelectronic Engineering*, 110, 241–245, 2013.
54. **G. Li**, C. W. Leung, C. Shueh, H.-F. Hsu, H.-R. Huang, K.-W. Lin, P. T. Lai, and P. W. T. Pong, "Exchange bias effects of NiFe/NiO bilayers through ion-beam bombardment on the NiO surface," *Surface & Coatings Technology*, 228, S437–S441, 2013.
55. **G. Li**, C. W. Leung, Y.J. Wu, A.-C. Sun, J. Hsu, P. T. Lai, K.-W. Lin, and P. W. T. Pong, "Enhanced structural and magnetic ordering of FePt/TiOx bilayers by ion-beam deposition and annealing," *Microelectronic Engineering*, 110, 250–255, 2013.
56. Q. Dong, **G. Li**, C.-L. Ho, M. Faisal, C.-W. Leung, P. W.-T. Pong, K. Liu, B.-Z. Tang, I. Manners, and W.-Y. Wong, "A Polyferroplatinyne Precursor for the Rapid Fabrication of L10-FePt-type Bit Patterned Media by Nanoimprint Lithography," *Advanced Materials*, 24, 1034–1040, 2012.
57. Z. Q. Lei, L. Li, **G. Li**, C. W. Leung, J. Shi, C. M. Wong, K. C. Lo, W. K. Chan, C. S. K. Mak, S. B. Chan, N. M. M. Chan, C. H. Leung, P. T. Lai, and P. W. T. Pong, "Liver cancer immunoassay with magnetic nanoparticles and MgO-based magnetic tunnel junction sensors," *Journal of Applied Physics*, 111, 2012.
58. **G. Li**, C. W. Leung, C. Shueh, Y. J. Wu, K.-W. Lin, A.-C. Sun, J.-H. Hsu, P. T. Lai, and P. W. T. Pong, "Oxygen-stoichiometry-dependent microstructural and magnetic properties of CoPt thin films capped with ion-beam-assisted deposited TiOx layers," *Surface and Coatings Technology*, 228, S354, 2012.
59. Z. Q. Lei, C. W. Leung, L. Li, **G. Li**, G. Feng, A. Castillo, P. J. Chen, P. T. Lai, and P. W. T. Pong, "Detection of Iron-Oxide Magnetic Nanoparticles Using Magnetic Tunnel Junction Sensors With Conetic Alloy," *IEEE Transactions on Magnetics*, 47, 2577–2580, 2011.
60. Z. Q. Lei, **G. Li**, W. F. Jr. Egelhoff, P. T. Lai, and P. W. T. Pong, "Magnetic Tunnel Junction Sensors With Conetic Alloy," *IEEE Transactions on Magnetics*, 47, 714–717, 2011.
61. Z. Q. Lei, **G. Li**, W. F. Jr. Egelhoff, P. T. Lai, and P. W. T. Pong, "Review of Noise Sources in Magnetic Tunnel Junction Sensors," *IEEE Transactions on Magnetics*, 47, 602–612, 2011.
62. **G. Li**, C. W. Leung, Z. Q. Lei, K. W. Lin, P. T. Lai, and P. W. T. Pong, "Patterning of FePt for magnetic recording," *Thin Solid Films*, 519, 8307–8311, 2011.
63. X. Lü, G. Zhao, **G. Li**, Z. Gao, S. Pan, and S. Zhu, "Mid-infrared laser with 1.2 W output power based on PPLT," *Science China Physics, Mechanics and Astronomy*, 53, 638–642, 2010.

## Patents

### HKUST:

1. G. Li, Y.H. Chan, K.W. Lee, H. Zhong, Spherical Conductive Heater for Efficient and Precise Food Cooking Applications, US provision 63570223, 2024
  2. G. Li, Y. Xu, H. Zhong, Ultrafast and Flexible Laser-patterned Joule Heater for Highly Efficient Cash Sterilization, US provision No. 63568428, 2024
  3. G. Li, H. Liu, Roll-to-roll Manufacturing of Breathable Superhydrophobic Membranes, US provision No.63568426, 2024
  4. G. Li, Y. Xu, K.W. Lee, H. Zhong, M. Kim, J. Lin, W. Y. Poon, Q. Yuan, H. Liu, Y.H. Chan, W. H. Tam, Automated Robotic Bedbug Eradication Device for Mattresses, US provision No. 63602437, 2023
  5. G. Li, K.W. Lee, Y. Xu, Y. Pan, H. Liu, Q. Yuan, M. Tang, AI-Generated Pattern for Laser-induced Caramel Interaction on Cookies, US provision No. 63588003, 2023
  6. G. Li, K.W. Lee, Y.H. Chan, Y. Xu, AI-Generated Pattern for Multi-Food Material Extrusion, 3D Printing, and Laser Patterning on Fortified Mooncakes, US provision No. 63581985, 2023
  7. G. Li, K.W. Lee, Y.H. Chan, Tele-monitoring footwear systems for healthy aging, US provision No. 61510065, 2023
  8. G. Li, K.W. Lee, Y. Xu, Q. Yuan, C. Mu, An integrative system for food 3D printing and multi-level cooking, US provision No. 63416931, 2022 (**licensed**)
  9. G. Li, Y. Xu, K.W. Lee, A. Chin, L. Poon, Ultrafast, Portable, Flexible, and Efficient Smart Heater for Face Mask Sterilization, US provision No. 63325601, 2022
- 

### Before HKUST:

1. G. Li, H. Zhong, Z. Zhu, J. Lin, Reusable and Recyclable Graphene Masks with Outstanding Superhydrophobic and Photothermal Performance, US provision No. 63003326, 2020
2. G. Li, T. Li, Y. Liu, Y. Pan, W. Su, Vision imaging apparatus for bionics compound eye, CN201166725Y, 2008
3. G. Li, Y. Liu, T. Li, Y. Pan, W. Su, Laser non-shadow illuminating apparatus, CN201187732Y, 2008
4. G. Li, Y. Liu, T. Li, L. Cai, Y. Pan, Method for manufacturing biological compound eye beam divider, CN101329449A, 2008
5. G. Li, Y. Liu, T. Li, L. Cai, Y. Pan, Three-dimensional space laser imaging apparatus, CN101329451A, 2008

## Conference

1. Laser Printing of Organic Functional Materials, **Li, Guijun**, International Union of Materials Research Societies – 18<sup>th</sup> International Conference on Electronic Materials 2024 (IUMRS-ICEM 2024), 16-20 May 2024 (**Invited Speaker**)
2. Advanced Laser Manufacturing of Nano Functional Materials, **Li, Guijun**, The 3<sup>rd</sup> China Metamaterials Conference, Wuzhen, Zhejiang, China, 9-12 May 2024 (**Invited Speaker**)
3. Development of an Integrative Multi-Level Cooking System for 3D-Printed Food, Lee, Kong Wai; Xu, Yang; Pan, Yexin; Yuan, Qiaoyaxiao; Zhong, Haosong; **Li, Guijun**, 9<sup>th</sup> International Conference on Food Chemistry & Technology, Paris, France, 27-29 November 2023
4. Laser-Based Selective Nanoimprint Method for Fabrication of Optical Metasurfaces as Modulating Layers for Fluorescent Materials, Chan, Yee Him Timothy; **Li, Guijun**, 2023 MRS Fall Meeting, Boston, USA, 27 November-2 December 2023
5. Advanced Laser Manufacturing for interdisciplinary applications, **Li, Guijun**, The 10<sup>th</sup> International Conference of Asian Society for Precision Engineering and Nanotechnology (ASPEN) 2023, Hong Kong, 21 - 24 November 2023. (**Invited Speaker**)
6. Laser-Induced Superhydrophobicity on Polymer-coated Aluminum Surfaces, LIU, Huan; **LI, Guijun**, ACS Fall 2023, San Francisco, CA, 13-17 August 2023
7. Ultrafast flexible Joule-heating sterilizer by direct laser scribing on copper-polyimide film, Xu, Yang; Chin, Alex W. H.; Lin, Jing; CHEN, Yi; Lee, Kong Wai; Zhong, Haosong; **Li, Guijun**, ACS Fall 2023, San Francisco, CA, USA, 13-17 August 2023
8. Laser-Printed Highly Sensitive Flexible Urea Sensors, Huang, Yangyi; Lee, Kong Wai; Jiang, Na; **Li, Guijun**, 5<sup>th</sup> IEEE International Conference on Flexible and Printable Sensors and Systems, FLEPS 2023, Boston, USA, 9-12 July 2023