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**EDUCATION**

2004–2011: Ph. D., Materials Science and Engineering, Pohang University of Science and Technology (POSTECH), Pohang, Korea
(M. S. bypassed)

Thesis: Position-controlled selective growth of wide bandgap semiconductor nano- and microstructures for light-emitting device applications

1998–2004: B. S., Materials Science and Engineering, Korea University, Seoul, Korea

PROFESSIONAL/ACADEMIC ACTIVITIES

2012–present: Assistant/Associate/Full Professor, Dept. Nanotechnology and Advanced Materials Engineering, Sejong University, Korea

2021–present: Associate Provost, Office of Planning and Budgeting (기획처 부처장), Sejong University, Korea

2020–2021: Vice Chair, Industry Academy Cooperation Foundation (연구처·산학협력단 부단장), Sejong University, Korea

2023–present: 총무국제이사, the Materials Research Society of Korea

2017–2019: Department Chair (학과장), Dept. Nanotechnology and Advanced Materials Engineering, Sejong University, Korea

2020–present: Academician member (평의원), the Korean Physical Society, Korea

2020–2022: Board member (평의원 및 사업이사), the Materials Research Society of Korea

2019–2020: Associate Executive Editor (편집부실무이사), Current Applied Physics, Elsevier

2019–2020: Vice Executive Board member (부실무이사), the Korean Physical Society

2015–2017: Program Director for Accreditation Board for Engineering Education of Korea, Sejong University, Korea

2011–2012: Postdoctoral Research Associate at Research Center for Integrated Quantum Electronics, Hokkaido University, Japan

2011–2012: Research Associate, Japan Society for the Promotion of Science (JSPS) Postdoctoral Fellowship for Foreign Researchers, Japan

RESEARCH FIELDS

- Compound semiconductor / graphene heteroepitaxy and hybrid structures (remote and van der Waals epitaxy)
- Position-controlled selective growth of semiconductor nanomaterials for 3-dimensional device architecturing
- MOVPE growth of III-V and II-VI-based nanomaterial and thin film heterostructures for optoelectronic (LEDs or solar cells) applications
- Structural and optical characterizations of semiconductor nanoarchitecture heterostructures
- Fabrication of nanoscale photonic and electronic devices

10 SELECTED PUBLICATIONS

1. J. Shin, H. Kim, S. Sundaram, J. Jeong,, K. Lee,* K. Chung,* **Y. J. Hong**,* A. Ougazzaden,* and J. Kim* "Vertical full-colour micro-LEDs via 2D materials-based layer transfer" *Nature* 614, 81–87 (2023/02/01)
2. H. Kim, C. S. Chang, S. Lee, J. Jiang, J. Jeong, M. Park, Y. Meng, J. Ji, Y. Kwon, X. Sun, W. Kong*, H. S. Kum,* S.-H. Bae,* K. Lee,* **Y. J. Hong**,* J. Shi,* and J. Kim* "Remote Epitaxy" *Nat. Rev. Methods Primers* 2, 40 (2022/06/01)
3. J. Jeong, D. K. Jin, J. Choi, J. Jang, B. K. Kang, Q. Wang, W. I. Park, B.-S. Bae, W. S. Yang, M. J. Kim, and **Y. J. Hong*** "Transferable, flexible white light-emitting diodes of GaN p–n junction microcrystals fabricated by remote epitaxy" *Nano Energy* 86, 106075 (2021/07/14)
4. J. Jeong, D. K. Jin, J. Cha, B. K. Kang, Q. Wang, J. Choi, S. W. Lee, V. Mikhailovskii, V. Neplokh, N. Amador-Mendez, M. Tchernycheva, W. S. Yang, J. Yoo, M. Kim,* S. Hong,* and **Y. J. Hong*** "Selective-area remote epitaxy of ZnO microrods using multilayer–monolayer-patterned graphene for transferable and flexible device fabrications" *ACS Appl. Nano Mater.* 3 (9), 8920–8930 (2020/08/05)

Curriculum Vitae

5. J. Jeong, Q. Wang, J. Cha, D. K. Jin, D. H. Shin, S. Kwon, B. K. Kang, J. H. Jang, W. S. Yang, Y. S. Choi, J. Yoo, J. K. Kim, C.-H. Lee, S. W. Lee, A. Zakhidov, S. Hong, M. J. Kim, and **Y. J. Hong*** "Remote heteroepitaxy of GaN microrod heterostructures for deformable light-emitting diodes and wafer recycle" **Sci. Adv.** 6(23), eaaz5180 (2020/06/03)
6. J. Jeong, K.-A. Min, D. H. Shin, W. S. Yang, S. W. Lee, J. Yoo, S. Hong, and **Y. J. Hong*** "Remote homoepitaxy of ZnO microrods across graphene layers" **Nanoscale**10, 22970–22980 (2018/11/21)
7. **Y. J. Hong**, J. W. Yang, W. H. Lee, R. S. Ruoff, and T. Fukui "Van der Waals Epitaxial Double Heterostructure: InAs/Single-Layer Graphene/InAs" **Adv. Mater.**25 (47), 6847–6853 (2013/12/17) (**featured as a back cover paper**)
8. **Y. J. Hong**, W. H. Lee, Y. Wu, R. S. Ruoff, and T. Fukui "van der Waals epitaxy of InAs Nanowires Vertically Aligned on Single-Layer Graphene" **Nano Lett.**12 (3), 1431–1436 (2012/03/14)
9. **Y. J. Hong**, C.-H. Lee, A. Yoon, M. Kim, H.-K. Seong, H. J. Chung, C. Sone, Y. J. Park, and G.-C. Yi "Visible-color-tunable light-emitting diodes" **Adv. Mater.**23 (29), 3284–3288 (2011/08/02) (**featured as an insidefront cover paper**)
10. (**Book Chapter**) **Y. J. Hong*** and C.-H. Lee "Chap 3. van der Waals Heteroepitaxy of Semiconductor Nanowires" **Semiconductors and Semimetals** "Semiconductor Nanowires I: Growth and Theory" 93, 125 (2015)