

<라용호 이력서>

Prof. Yong-Ho Ra

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Research Activity

- Epitaxial growth/synthesis of III-nitride materials using MOCVD and MBE technique.
- Novel semiconductor nanowire/nanorod, quantum dot and thin film structures
- Nano-scale optoelectronic devices (LEDs, LDs, PDs etc) for micro/nano display, real 3D display, smart lighting, lamp applications.

Education

2014 **Ph.D.** Electronic Information Materials Engineering, Jeonbuk National University, Korea

2010 **M.S.** Electronic Information Materials Engineering, Jeonbuk National University, Korea

2008 **B.S.** Electronic Information Materials Engineering, Jeonbuk National University, Korea

Professional Experience

2021-present **Associate Professor**, Dept. of Advanced Materials Engineering, Jeonbuk National University, yhra@jbnu.ac.kr

2018 - 2021 **Senior Researcher**, Optic & Electronic Component Material Center, Korea Institute of Ceramic Engineering & Technology (KICET)

2014 - 2017 **Postdoctoral Fellow**, Dept. of Electrical & Computer Engineering, McGill university

Representative Publications (First-author)

1. Yong-Ho Ra et al, Ultracompact display pixels: Tunnel junction nanowire photonic crystal laser, *Nano Energy*, 2021, Vol. 84, p105870.
2. Yong-Ho Ra et al, Core-shell tunnel junction nanowire white light-emitting diode, *Nano Letters*, 2020, Vol. 20, p4162-4168.
3. Yong-Ho Ra et al, An electrically pumped surface-emitting semiconductor green laser, *Science Advances*, 2020, Vol. 6, eaav7523.
4. Yong-Ho Ra et al, Scalable Nanowire Photonic Crystals: Molding the Light Emission of InGaN, *Advanced Functional Materials*, 2017, Vol. 27, p1702364.
5. Yong-Ho Ra et al, Full-color single nanowire pixels for projection displays, *Nano Letters*, 2016, Vol. 16, p4608-4615.
6. Yong-Ho Ra et al, Single nanowire LED using uniaxial and coaxial InGaN/GaN MQWs synthesized by MOCVD, *Nano Letters*, 2014, Vol. 14, p1537-1545.
7. Yong-Ho Ra et al, Coaxial InGaN/GaN MQW nanowire arrays on Si substrate for high-performance LEDs, *Nano Letters*, 2013, Vol. 13, p3506-3516.