

**Section of
Public Affairs**Hyo Jung Kim
Section Chief
(+82) 62-715-2061Nayeong Lee
Senior Administrator
(+82) 62-715-2062**Contact Person
for this Article**Professor Dong-Seon Lee
School of Electrical Engineering
and Computer Science
(+82) 62-715-2248**Release Date**

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GIST Nobel Amano Center for Advanced LEDs hosts 2019 2nd ACALED Symposium

- GIST (President Kiseon Kim) Nobel Amano Center for Advanced LEDs (ACALED, Director Hiroshi Amano of Nagoya University who won 2014 Nobel Prize in Physics and Deputy Director GIST Professor Dong-Seon Lee) organized the 2019 2nd ACALED Symposium at GIST on August 8, 2019.
 - GIST ACALED was opened in November 2016 to develop high-tech devices based on nanostructure technology of nitrate semiconductors and to secure world-class research capabilities and technology in conjunction with Nagoya University Professor Hiroshi Amano.
- Recently, ACALED research conducted by Professor Hiroshi Amano and GIST Professor Dong-Seon Lee (co-authors) and conducted by GIST master's student Jeong-hwan Park published a paper in the *Advanced Materials Interfaces* journal entitled "Influence of Temperature-Dependent Substrate Decomposition on Graphene for Separable GaN Growth."
- At the opening ceremony of GIST ACALED on November 3, 2016, Professor Amano gave a lecture to students on "Blue LEDs, DUV LEDs and Future Electronics for Establishing Sustainable Smart Society" to share the content of early LED research difficulties and challenges facing advanced LED development in the future. [Photo 1]

- The symposium was conducted by inviting speakers who are conducting outstanding research in the field of nitrate semiconductors and various 2D materials as well as their manufacturing process and analysis, including seven guest lectures such as ▲ MIT mechanical engineering Professor Ji-hwan Kim's "Challenges and opportunities in remote epitaxy" ▲ Nagoya University Dr. Xu Yang's "MOVPE and characterization of two-dimensional hexagonal boron nitride layers."
- GIST Professor Dong-Seon Lee said, "Hopefully, the symposium will serve as a venue for active exchange of views and heated discussions and contribute a little to the development of this field, and I look forward to your unwavering affection and interest toward the GIST Nobel Amano Center for Advanced LEDs."
- Currently, GIST ACALED has 14 GIST researchers working with Professor Amano of Nagoya University and is conducting continuous joint research for future nanostructure-based LEDs with the aim of developing technologies to produce micro LEDs for displays.
- GIST has developed collaborations with Nobel Prize winners, who are the most prestigious in their fields, to create the best research environment and to secure the world's best research capabilities and competitive technology with the ▲ Heeger Center for Advanced Materials ▲ Ertl Center for Electrochemistry and Catalysis ▲ Steitz Center for Structural Biology ▲ Grünberg Center for Magnetic Nanomaterials ▲ Amano Center for Advanced LEDs ▲ Grubbs Center for Polymers and Catalysis.



▲ Photograph at the opening of ACALED in 2016 with GIST Professor Dong-Seon Lee (third from right front row) and Professor Amano of Nagoya University (fourth from right front row)

2nd ACALED Symposium

Amano Center for Advanced LEDs, GIST

August 8th, 2019
오룡관 103호
(Oryong Hall Room 103)

 노벨 아미노 첨단 LED 연구센터
Amano Center for Advanced LEDs

 광주과학기술원
Kwangju Institute of Science and Technology

초 대 의 글

아미노 첨단 발광다이오드 연구센터의 두번째 심포지엄을 개최를 기쁜 마음으로 알립니다.

저희 센터는 2016년 설립된 이래 나고야 대학의 아미노 교수님 연구실과 협력하며 주로 질료를 반도체의 나노 구조 연구를 꾸준히 진행해 왔습니다. 이번 심포지엄에서는 질료를 반도체와 다양한 2D 물질의 성장 및 이를 이용한 소자 제작과 분석 분야에서 탁월한 연구를 하고 계시는 초청연사들을 모셨습니다. 이번 심포지엄이 활발한 의견교환과 열띤 논의의 장이 되고 이 분야의 발전에 조금이나마 보탬이 되기를 희망하며, 저의 센터에 대한 변함없는 애정과 관심을 부탁 드립니다. 감사합니다.

 노벨 아미노 첨단 LED 연구센터
Amano Center for Advanced LEDs


Vice-Director **Dong-Seon Lee**

I am glad to announce the second symposium of the Amano Center for Advanced LEDs.

Since its establishment in 2016, our center has been steadily working on the nanostructures of mainly nitride semiconductor and their applications under the collaboration with Professor Amano's laboratory in Nagoya University. In this symposium, we invited guest speakers who are doing outstanding research in the field of growth of GaN and various 2D materials such as BN, MoS₂, and Ga₂O₃, device fabrication and characterization using the materials. I hope that this symposium will be a forum for active exchange of valuable opinions and warm discussions. I ask for your continued affection and interest in our center.

Thank you.

INVITATION

일 정

Time	Program	Venue
PM 1:30 – 1:50	Registration	
PM 1:50 – 2:00	Prof. Dong-Seon Lee (GIST, ACALED Vice-director) Welcome remark and brief introduction of ACALED	
PM 2:00 – 2:30	Prof. Jeehwan Kim (Massachusetts Institute of Technology) "Challenges and opportunities in remote epitaxy"	
PM 2:30 – 3:00	Prof. Young Joon Hong (Sejong University) "Non-covalent epitaxy of semiconductor microrods for flexible optoelectronics applications"	
PM 3:00 – 3:30	Dr. Xu Yang (Nagoya University) "Metalorganic vapor phase epitaxy and characterization of two-dimensional hexagonal boron nitride layers"	
PM 3:30 – 3:45	Coffee Break	오룡관 103호 (Oryong-Hall Room 103)
PM 3:45 – 4:15	Prof. Jong Kyu Kim (Postech) "Growth of wafer-scale h-BN by MOVPE"	
PM 4:15 – 4:45	Prof. Takhee Lee (Seoul National University) "Electrical Characteristics of MoS ₂ Field-Effect Transistors Treated with Organic Molecules and Polymers"	
PM 4:45 – 5:15	Prof. Mun Seok Jeong (Sungkyunkwan University) "Defect analysis of 2-D nanomaterials with Tip-enhanced Raman Spectroscopy"	
PM 5:15 – 5:45	Prof. Jun-Seok Ha (Chonnam National University) "High crystalline α -Ga ₂ O ₃ growth by nano ELOG method with Pd-embedded SWCNT networks"	
PM 6:00 – 8:00	Welcome Dinner	SCHEDULE

▲ 2019 2nd ACALED Symposium program guide