

## Gwangju Institute of Science and Technology

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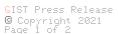
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## Wonjun Lee, a student in the School of Materials Science and Engineering, won the Best Paper Award in the field of materials

- In the School of Materials Science and Engineering at GIST (Gwangju Institute of Science and Technology, President Kiseon Kim), a student named Wonjun Kim (Dissertation Advisor: Myung-Han Yoon) who will graduate on February 2021 with a PhD won the 2021 Best Paper Award in the field of materials, awarded by Korea Institute of Materials Science (KIMS, Director Jeonghwan Lee)
  - The award nomination was proceeded by Korea Institute of Materials Science for one of the students who will graduate with phD in the field of materials to encourage the cultivation of talented students in the field.
- The student Wonjun Lee produced a metal oxide material of high permittivity with high functional ink of very thin liquid through the reserch, "High Functional Metal Oxide Material & Solution Printing Process Technology Development." In particular, a wire-bar printing method was successfully developed, which could apply elaborate metal oxide thin film in nanoscale to large area substrate.
  - The proposed technology produced metal oxide insulating film of large area, high uniformity and high function with the minimum ink of micro-liter and



it successfully lowered the power consumption of electronic devices to 1/10 compared to the previous one. Moreover, It was proven that the metal oxide thin film could make elaborate pattern automatically without photolithography process by combining the surface modification and the bar printing method. The result was published in the prestigious scientific journal, "Advanced Materials" in the field of materials science and technology.

- Besides, the student Wonjun Lee has published the research results of "Large Area Demagnetization and Low Temperature Photoactive Crystallization of High Functional Metal Oxide Thin Film Materials" in the field of electronics and energy in a number of renowned international academic journals in the field of materials science and technology. In recognition of excellence of those research, the Minister of Science and ICT Award will be awarded at the GIST Conferment of Degrees Ceremony this year.
- On the other hand, Korea Institute of Materials Science have awarded the Best Paper Award to 44 people in 11 universities until now starting in Korea Advanced Institute of Science and Technology in 2003 to secure talented students and to establish network base in the field of materials.



▲ School of Materials Science and Engineering student Wonjun Lee

