

MinJae Kim

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Education

Korea Advanced Institute of Science and Technology(KAIST)

Daejeon, Korea

UNDERGRADUATE, DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING

Feb. 2019 - Present

- KAIST Presidential Fellowship(2021 - Present), Honor Student(Mar. 2021 - Present)
- Total GPA of 4.23/4.3 (99.22/100), Total credits: 114
- Served Korean military duty(Mar. 2021 - Sep. 2022)

Research Experience

Next-Generation Optoelectronic Nanomaterials Lab., KAIST

Daejeon, Korea

UNDERGRADUATE RESEARCHER(ADVISOR: PROF. HIMCHAN CHO)

Jul. 2022 - Present

- Project title: Development of highly luminescent and stable quasi-2D perovskites based on multi-functional asymmetric spacers
- Devised and validated the 3rd-generation geometrically and electronically asymmetric spacer for Dion-Jacobson phase quasi-2D perovskite

PLatforms Utilizing nano-Structures Lab., KAIST

Daejeon, Korea

UNDERGRADUATE RESEARCHER(ADVISOR: PROF. JIHYEON YEOM)

Dec. 2020 - Feb. 2021

- Project title: Facile synthesis of chiroptical magnetite nanoparticle using mandelic acid
- Designed synthesis of novel chiral magnetite nanoparticles using enantiomeric mandelic acids and glutamic acid, eventually showed α -hydroxy acid plays a significant role in binding
- Performed circular dichroism(CD) measurements and analyzed the relative strength of interaction between chiral molecules and nanoparticles via deconvolution

Presentation

Stockholm International Youth Science Seminar

On-line

NATIONAL DELEGATE OF SOUTH KOREA, NOBEL CEREMONY GUEST

Dec. 2020

- Title: Application of PEDOT:PSS Thin Film Fabricated via Hot-casting as Hole Transport Layer of Perovskite Solar Cell(oral, on-line)[Abstract][Presentation]

Honors & Awards(Selected)

SCHOLARSHIPS

- | | | |
|------|---|----------------|
| 2022 | Dream Supporter Scholarship , Global Hansang Dream Foundation | Ulsan, Korea |
| 2021 | KAIST Presidential Fellowship , KAIST | Daejeon, Korea |
| 2020 | Department Top Honor Scholarship , KAIST | Daejeon, Korea |
| 2019 | National Presidential Science Scholarship , Korea Student Aid Foundation | Seoul, Korea |

HONORS

- | | | |
|------|--|----------------|
| 2023 | Young Future Energy Leader , Khalifa University | Abu Dhabi, UAE |
| 2023 | Representative of KAIST , Young Engineers Honor Society, National Academy of Engineering of Korea | Seoul, Korea |
| 2022 | National Delegate , Asian Students' Venture Forum | Seoul, Korea |
| 2020 | National Delegate and Nobel Ceremony Guest , Stockholm International Youth Science Seminar(SIYSS) | On-line |
| 2020 | Cadet of Research Officer for National Defense , Ministry of Science and ICT | Seoul, Korea |
| 2020 | Young Engineers Honor Society , National Academy of Engineering of Korea | Seoul, Korea |

AWARDS

- | | | |
|------|--|----------------|
| 2022 | Bronze Award , Asian Students' Venture Forum | Seoul, Korea |
| 2021 | Talent Award of Korea , Ministry of Education | Seoul, Korea |
| 2021 | Youth Hero Prize , Korea Scout Association | Seoul, Korea |
| 2020 | Dean's List(2020 Spring, 2020 Fall) , College of Engineering, KAIST | Daejeon, Korea |
| 2020 | Excellence in Mentorship Award , Samsung Welfare Foundation | Ansan, Korea |
| 2019 | Dean's List(2019 Fall) , School of Freshmen, KAIST | Daejeon, Korea |

Extracurricular Activity

Young Engineers Honor Society, National Academy of Engineering of Korea

Seoul, Korea

FULL MEMBER(REGISTRATION NO. Y34-14)

Sep. 2020 – Present

- Served the representative of KAIST(Dec. 2022 - Present)
- Outreached for high school students for special lectures on college admission and majoring
- Developed educational contents for outreach

Board of Audit and Inspection, KAIST Undergraduate Association

Daejeon, Korea

INSPECTION COMMISSIONER

Apr. 2019 – May 2020

- Served as President, Oct. 2019 – May 2020
- Enacted inspection forms, revised manual, legislated rules for field audit
- Composed audit reports of organizations, reported to undergraduate student assembly