

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 4.22/4.3 (99.11/100), Total credits: 92
- 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: In-situ activation of spacer ammonium for 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 chirality-induced 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 significant role on binding
- Performed circular dichroism(CD) measurements and analyzed relative strength of interaction between chiral molecules and nanoparticle 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

SCHOLARSHIPS

- | | | |
|------|---|----------------|
| 2021 | KAIST Presidential Fellowship , KAIST | Daejeon, Korea |
| 2020 | Department Top Honor Scholarship(2020 Fall) , KAIST | Daejeon, Korea |
| 2019 | National Presidential Science Scholarship , Korea Student Aid Foundation | Seoul, Korea |
| 2019 | Personal Specialty Scholarship , Korea Truck Welfare Foundation | Seoul, Korea |

HONORS

- | | | |
|------|--|----------------|
| 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 |
| 2018 | National Representative , The 69th International Science and Engineering Fair | Pittsburgh, PA |

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

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

Samsung Dreamclass at Hanyang University ERICA

Ansan, Korea

MATHEMATICS MENTOR AND PROGRAMMING REPRESENTATIVE MENTOR

Dec. 2019 – Jan. 2020

- Conducted lecture for class about 30 students, developed learning materials, marked assignments daily, answered questioned in person
- Supervised two programming team, won gold and silver award respectively

Skills

Programming LaTeX

Languages Korean(native), English(fluent)