

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: 114/136
- 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
- Granted the Undergraduate Research Program(URP, KRW 5M)

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

Highly Luminescent and Stable Quasi-2D Perovskites based on Multi-functional Asymmetric Spacer

Jeju, Korea

POSTER PRESENTER

Apr. 2023

- 2023 Korean Institute of Metals and Materials Fall Meeting [Poster]

Application of PEDOT:PSS Thin Film Fabricated via Hot-casting as Hole Transport Layer of Perovskite Solar Cell

On-line

NATIONAL DELEGATE OF SOUTH KOREA, NOBEL CEREMONY GUEST, ORAL PRESENTER

Dec. 2020

- Stockholm International Youth Science Seminar [Abstract][Presentation]

Honors & Awards(Selected)

SCHOLARSHIPS

2023	Department Top 3 Scholarship, KAIST	Daejeon, Korea
2023	Woonhae Scholarship, Woonhae Foundation	Changwon, Korea
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

2023	Global Leadership Award , KAIST	Daejeon, Korea
2022	Dean's List(2022 Fall) , College of Engineering, KAIST	Daejeon, Korea
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

KAIST Center for Excellence in Learning and Teaching

Daejeon, Korea

SPECIAL LECTURER

Nov. 2022

- Presented tips for undergraduate and graduate freshmen(KAIST Tip Talk program)
- [Lecture Video]

Young Engineers Honor Society, National Academy of Engineering of Korea

Seoul, Korea

REPRESENTATIVE OF KAIST, FULL MEMBER(REGISTRATION NO. Y34-14)

Sep. 2020 – Present

- Served the representative of KAIST(Jan. 2023 - 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