

Korea-EU Horizon Europe Researchers Networking Forum on Energy & Advanced Mobility

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Professor

**Chungnam National
University (CNU)**

Energy Catalysts



1. Short Introduction of your Organization

ABOUT CNU

CNU is one of the most prestigious national universities in Korea

Chungnam National University (CNU) is one of the most prestigious national universities in the nation. Since the establishment in May, 1952, CNU has played as a national leading role in educating talented youth and has participated in the local and national communities' economic and social development. We have been providing an outstanding and challenging curriculum that enable academically superior students to become professions



KEY FIGURES



27,974

Undergraduate & Graduate students



469

Partner institutions from 67 nations

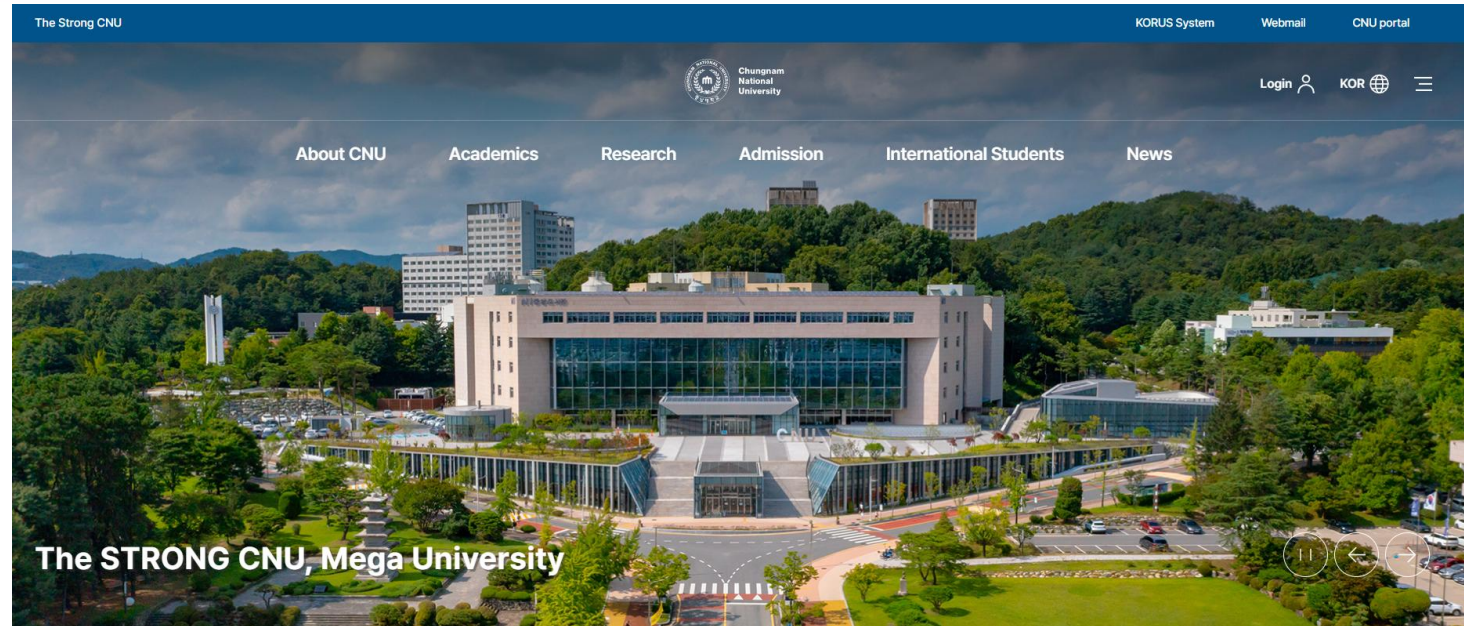


Ranked **2nd** in "2020 THE" among Korean flagship national universities.



1,092

International students from 79 countries



Two flagship universities will be merged to become **the biggest national University from 2028.03.**

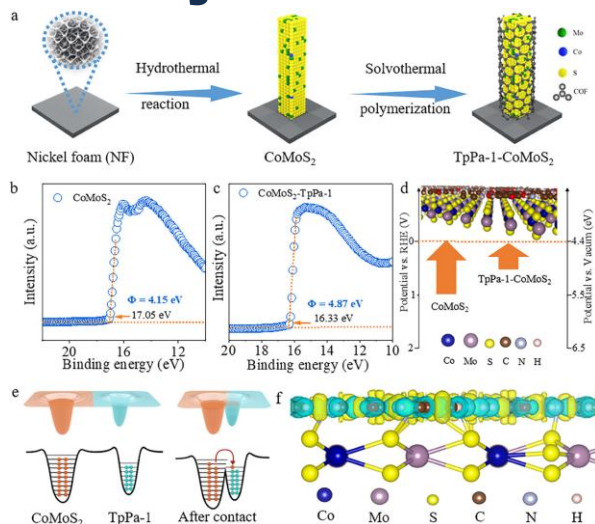


2. Expertise

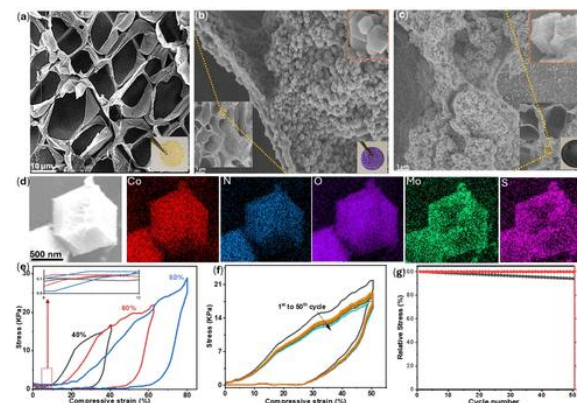
EXPERTISE OF LEELAB : nanoscale synthesis and surface modification for battery/supercap and catalyst



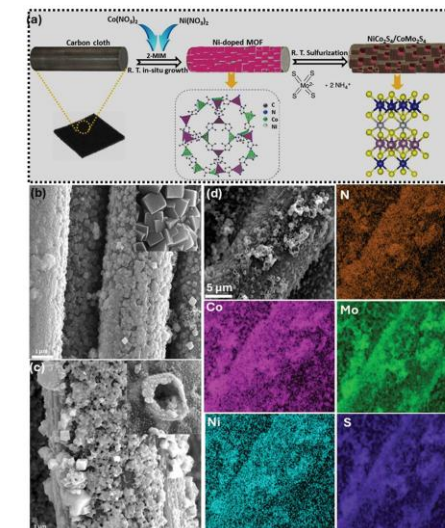
Gicha, B.B., Tufa, L.T., Nwaji, N. et al.
Advances in All-Solid-State Lithium–Sulfur
Batteries for Commercialization. **Nano-
Micro Lett.** 16, 172 (2024)



Interfacial Electronic Synergism in Cobalt-Doped MoS₂-COF Heterostructures for Energy-Efficient Hydrazine-Assisted Hydrogen Production, **Small**, asap, 2025,
<https://doi.org/10.1002/sml.202508200>



Compressible Co₃O₄@MoS₂
Aerogel as an Advanced Functional
Electrode for Asymmetric
Supercapacitors
ACS Appl. Mater. Interfaces (2025),
17, 34, 48173–48183



Advanced Functional
NiCo₂S₄@CoMo₂S₄
Heterojunction Couple as
Electrode for Hydrogen Production
via Energy-Saving Urea Oxidation,
Small, 21, 9 (2025) 2410848

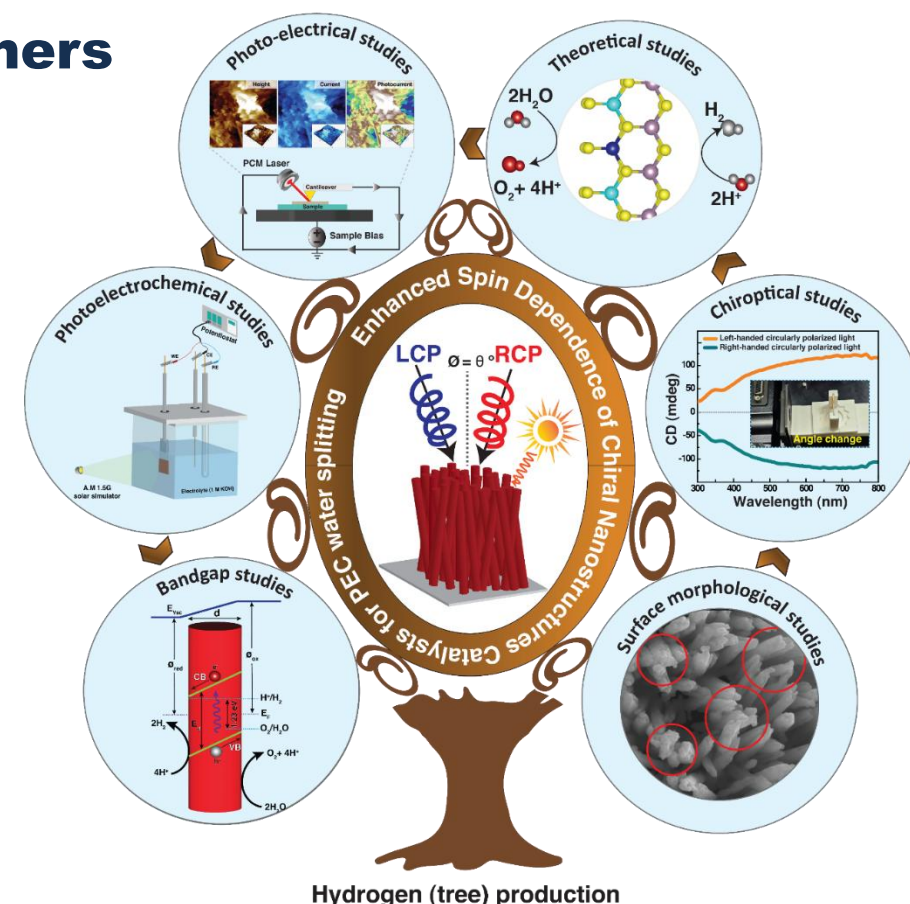
3. Your Project Idea

Fundamental and Commercialization Research Partners

- Novel catalysts for energy generation and storage, re-valuing
- Sing-atom level research for catalysts
- Simulation and quantum physics study

And

- Mass production and commercialization

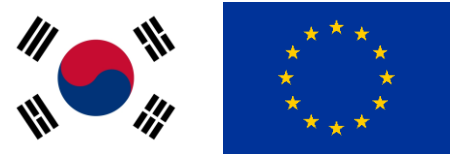


Hydrogen (tree) production



4. Profile You are Seeking and Why

IF YOU PRESENT A PROJECT IDEA



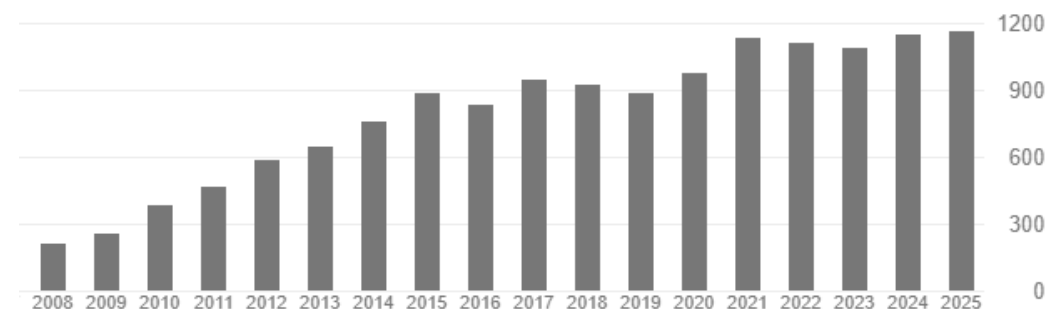
We are seeking a long-term EU research and commercialization research partner.

We had experienced with Queen's University Belfast for renewable energy project, Belarus University for Quantum dot development, and TU, Wien for Metasurface Catalyst. However, they had been usually for 2 years projects.

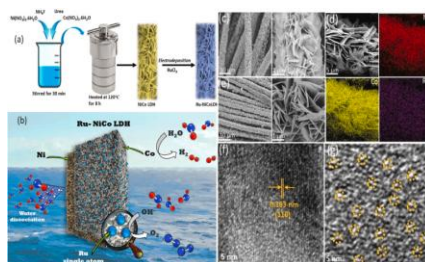
5. Contact Details



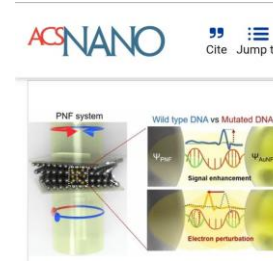
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	All	Since 2020
Citations	14709	6639
h-index	53	40
i10-index	179	138



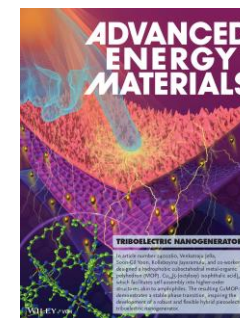
Jaebeom Lee, nanoleelab@cnu.ac.kr



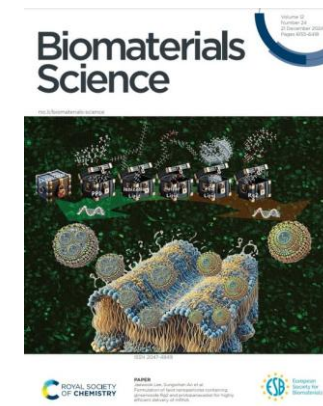
Atomic catalyst
& Quantum Mechanics



Chiral Plasmonics



Triboelectric Nanogenerators



Bio-energy storage