

PROFILE



Korea Institute of Energy Research

Toward a content and prosperous society, led by KIER energy technology

- ✓ Secondary Battery
- ✓ Artificial Intelligence (AI)
- ✓ Hydrogen



Website QR

Information

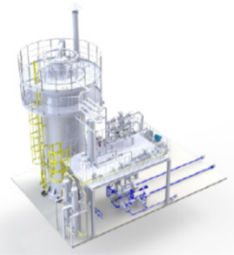
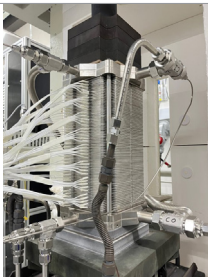
Main Contact	+82-42-860-3114
Website	https://www.kier.re.kr/
Purpose of Establishment	It aims to contribute to the creation of national growth engines and the development of the national economy through R&D and spread of achievements in the energy technology area
Main Responsibilities	As a leading research institution in energy technology, We improve the quality of human life and realize a sustainable future.
Planned Recruitment	To be Determined

Contact

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Key Achievements

 Establishing the foundation for a hydrogen economy society by disseminating 100% localized world-class extracted hydrogen production technology building H2 economy foundation	 Contributing to low-cost domestic green H2 production through world-class technology transfer	 Contributing to GHG reduction based on world-class wet and dry CO2 capture technologies and inherent CO2 separation during fuel combustion
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Research & Project List

- Hydrogen Fuel Cell Stack and System Technology for Mitigating Short-Term Power Fluctuations

Fuel cell stacks and systems capable of fast-response power generation to address power fluctuations in renewable energy.
- Long-Duration, Large-Capacity Secondary Batteries and Domestic Material Localization

Development of world-class long-duration, large-capacity flow battery BESS and localization of high-energy-density secondary battery anode materials
- Development of DC Fault Detection Technology for Enhancing Distributed Energy Resource Safety

DC arc fault detector with world-class (99.99%+ accuracy) DC system fault detection performance for distributed energy resources
- Securing Bioenergy and Resource Upcycling Technologies

Core elemental technologies for biodiesel production to substitute diesel fuel / Commercialization and pyrolysis of biodiesel meeting domestic and international quality standards / Energy production and utilization processes utilizing waste plastics, waste tires, waste oils, and biomass
- Development and Demonstration of Townhouse-Type Hydrogen Production, Storage, and Utilization System Technology

Development of an integrated hydrogen town-type energy system capable of renewable energy-based hydrogen production, storage, and utilization
- Securing Next-Generation Innovative Solar Photovoltaic Technologies for Carbon Neutrality

Urban-specialized solar cells overcoming constraints of installation area, location, and form factor (ultra-high-efficiency and multifunctional solar cells)