

August 25, 2026

Aircapture Inc.

NGK Corporation

Aircapture and NGK Begin Joint DAC Demonstration Project at AIZAWA Concrete

Real-World Evaluation of Direct Air Capture Technology Underway in Fukushima

BERKELEY, Calif. and NAGOYA, Japan, August 25, 2026 – Aircapture Inc., which designs and deploys modular direct air capture (DAC) systems that produce high-purity CO₂ on-site for industrial customers, and NGK Corporation, a developer of key DAC components based on its proprietary ceramic technologies, have begun a collaboration aimed at advancing the practical deployment of DAC technologies. As part of this initiative, Aircapture has designed, supplied and commissioned a DAC demonstration system incorporating NGK's ceramic substrates for DAC to AIZAWA Concrete Corporation, where the system is being evaluated under real-world operating conditions.

This project marks Aircapture's first deployment in Japan and NGK's first DAC demonstration in a commercial operating environment.

■ **Project Overview and Significance**

The demonstration utilizes a DAC system installed at AIZAWA Concrete's Fukushima RDM Center. By combining Aircapture's DAC technology with NGK's advanced ceramic substrates developed specifically for DAC applications, the project is evaluating system performance, operational characteristics, and durability under real-world operating conditions. The demonstration will also explore potential utilization pathways for captured CO₂, including concrete mineralization.

A carbon-neutral future requires reducing greenhouse gas emissions and addressing emissions already in the atmosphere, capturing CO₂ and putting it to beneficial use or long-term storage. DAC has emerged globally as one of the most promising negative-emissions technologies, and this demonstration represents an important opportunity to evaluate CO₂ capture performance, operational reliability, and durability under real operating conditions, testing NGK's ceramic substrate technology inside a working Aircapture system.

■ **Technical Synergy Between Aircapture and NGK**

Aircapture develops and deploys modular DAC systems that can be installed directly at industrial and manufacturing facilities, promoting the capture and circular utilization of atmospheric CO₂ to supply high-purity CO₂ on-site. At the Fukushima RDM Center, the project is evaluating the potential for incorporating captured CO₂ into concrete manufacturing processes and permanently storing it within building materials.

NGK is applying ceramic technology originally developed for automotive emissions-control applications to create advanced honeycomb-structured ceramic substrates for DAC systems. Compared with pellet-based approaches, the honeycomb structure promotes more uniform airflow and enables efficient CO₂ capture. In addition to reducing blower energy consumption through lower pressure loss, its lightweight, thin-wall design lowers thermal capacity and reduces the energy required during CO₂ desorption and regeneration.

The combination of Aircapture's system integration capabilities and NGK's advanced ceramic technologies is expected to deliver several benefits, including:

- Efficient capture of atmospheric CO₂
- Reduced blower energy consumption through lower pressure drop
- Reduced regeneration energy through lower thermal capacity
- More compact DAC system configurations
- Lower overall system costs
- Expanded deployment of modular DAC systems and growth in CO₂ capture and utilization opportunities

Through this collaboration, Aircapture and NGK aim to address key technical and economic barriers to broader DAC deployment.

■ Executive Comments

Matt Atwood, Founder and CEO, Aircapture Inc.

"Almost all of Japan's industrial CO₂ today comes from fossil-based processes. Japan's 2050 carbon neutrality target requires phasing that supply out, and there is currently no plan to replace it. That is why we prioritized Japan as an early market. In this demonstration, we installed NGK's ceramic substrate in a working Aircapture system to test its performance under real conditions, not only in the lab. What we learn here will support our plan to commercialize DAC in Japan."



Motoo Noritake, Senior Vice President and Group Executive, Environment Business Group, General Manager, NGK Corporation

"Leveraging more than a century of ceramic technology expertise, NGK is developing advanced materials that improve DAC performance while contributing to lower system costs. For DAC technologies to achieve broader adoption, it is essential not only to demonstrate technical performance but also to validate performance and durability under real operating conditions. Through this demonstration with Aircapture and AIZAWA Concrete, we will accelerate efforts toward the practical deployment of DAC systems."



■ Outlook

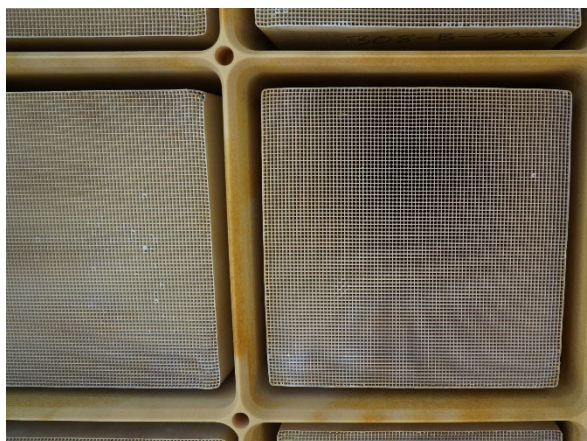
Aircapture is expanding its modular DAC deployments across additional industrial and commercial sites, applying what it learns at each installation to bring down system cost.

NGK is continuing development of next-generation ceramic substrates for DAC that are lighter and more energy efficient than current products. Leveraging its global manufacturing platform developed through the automotive industry, NGK is also preparing for future volume production to support the growth of the DAC market.

Together, Aircapture and NGK will continue strengthening their collaboration and accelerating the practical deployment of DAC technologies, helping expand the adoption of negative-emissions solutions worldwide.



a DAC system installed at AIZAWA Concrete's Fukushima RDM Center



NGK's ceramic substrates for DAC
incorporated into the DAC system under demonstration

About Aircapture Inc.

Aircapture, headquartered in Berkeley, CA, is a leader in the deployment of direct air capture (DAC) solutions, delivering atmospheric CO₂ as a circular commodity for industrial and commercial customers. As the first truly modular DAC solution, Aircapture offers unparalleled flexibility, enabling customers to seamlessly integrate clean CO₂ into their production processes on-site. Founded in 2019, Aircapture is pioneering global projects in carbon sequestration, industrial decarbonization, and localized CO₂ supply. With a dedicated team of engineers, chemists, and entrepreneurs, Aircapture is redefining how carbon is captured, utilized, and recycled, driving the transition to a circular carbon economy. <https://aircapture.com/>

About NGK Corporation

Founded in 1919, NGK is a ceramics manufacturer active across a wide range of fields, including mobility, energy, IoT, and industrial applications. Its principal products include ceramics for semiconductor manufacturing equipment and automotive components, and the company continues to strengthen its presence as a global business, with overseas sales accounting for roughly 80% of revenue and overseas employees for roughly 60% of its workforce. Since setting out its vision in 2021 to contribute to a carbon-neutral, digital society through its ceramic technology, NGK has accelerated the transformation of its business portfolio, and in April 2026 changed its corporate name from NGK Insulators, Ltd. to NGK Corporation. Guided by the NGK Group mission — “New Value for a Better Future” — the company continues to pursue a more comfortable and sustainable society through the delivery of new products and services. <https://www.ngk-global.com/>