

Regarding the Nobel Prize in Chemistry Awarded to Professor Susumu Kitagawa of Kyoto University

Nagase & Co., Ltd. extends its heartfelt congratulations to Professor Susumu Kitagawa, Distinguished Professor at Kyoto University, on being awarded the 2025 Nobel Prize in Chemistry.

Nagase & Co., Ltd. (Head Office: Chiyoda-ku, Tokyo; President and CEO: Hiroyuki Ueshima; hereinafter “NAGASE”) has been collaborating since 2021 with Atomis Inc. (Head Office: Kobe, Hyogo; CEO: Daisuke Asari; hereinafter “Atomis”), a company for which Professor Kitagawa serves as Scientific Advisor. Together, we have been engaged in the development of technologies for CO₂ separation and capture using porous coordination polymers/metal–organic frameworks (PCP/MOFs).

Atomis, its partner companies, and NAGASE are jointly developing a CO₂ separation and capture system that utilizes MOF adsorbents developed by Atomis. This innovative system can selectively absorb CO₂ from moist combustion exhaust gases, such as those emitted by factories. By eliminating the need for a conventional dehumidification step, the technology enables reductions in both equipment and operational costs, while also achieving energy savings and a more compact design of equipment. A demonstration test of the system is scheduled to take place this autumn at a partner company’s facility, with the goal of realizing early social implementation.

As a company that uses materials to solve manufacturing challenges, the NAGASE Group is committed to contributing to solutions for broader social issues. Going forward, we will continue to combine Atomis’ PCP/MOF technologies—expected to help mitigate global environmental issues such as climate change—with the NAGASE Group’s extensive network and expertise, to deliver new forms of value and contribute to the realization of a sustainable world where people can live with peace of mind.

<Business inquiries>

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