

Electrodeposition coating technology for ENE-FARM type S wins 2021 Chemical Technology
Award from Chemical Society of Japan

March 31, 2022

Osaka Gas Co., Ltd.

Osaka Gas Marketing Co., Ltd.

Osaka Gas Co., Ltd. (President: Masataka Fujiwara) and Osaka Gas Marketing Co., Ltd. (President: Shigeru Chikamoto) announced that they have won the 2021 Chemical Technology Award*1 from the Chemical Society of Japan for “Development of Electrodeposition Coating for SOFC Interconnector,” which is integrated into the cell stack, one of the main devices of ENE-FARM type S*2 released in April 2016, a solid oxide fuel cell cogeneration system for household use. The award is shared with Shimizu Co., Ltd. (President: Osamu Shimizu) and KYOCERA Corporation (President: Hideo Tanimoto), which jointly developed this technology.

This technology is one of the key technologies that have achieved the world’s highest power generation efficiency and durability of 10 years*3 of ENE-FARM type S, and about 100,000 units*4 equipped with this technology are generating electricity.

Since the cell stack at the heart of the power generator generates electricity at a high temperature of 700 to 800°C in ENE-FARM type S, it is important to ensure the durability of the interconnector, which is made of stainless steel. It took about seven years to develop the technique that can uniformly and evenly apply high-performance coating materials. This award is in full recognition of the innovation of this technique and its track record of market introduction.

We will strive to achieve further technology development and cost reduction and remain committed to helping customers achieve a comfortable lifestyle, reducing environmental impacts, and improving energy security.

*1) Chemical Technology Award from the Chemical Society of Japan

Awarded to “a person or persons who have made remarkable achievements in the technology of the chemical industry in Japan” by the Chemical Society of Japan, the largest chemical society in Japan with a history and tradition of 130 years or longer and about 30,000 members

*2) ENE-FARM type S has been commercialized based on the technology developed by Osaka Gas, AISIN SEIKI, KYOCERA, and Toyota

Motor Corporation (President: Akio Toyoda). The lineup includes a function to continue power generation during outages to ensure electricity availability.

*3) The latest model has a durability of 12 years.

*4) As of March 2022

Website of the Chemical Society of Japan:

<https://www.chemistry.or.jp/news/information/2021-14.html>

