



July 28, 2022

NEWS RELEASE

Investment in Environmental Energy Venture Company "eSep"

Mitsui Mining & Smelting Co., Ltd. (President: NOU Takeshi; hereinafter "Mitsui Kinzoku") is pleased to announce that it has invested in eSep Inc. (headquartered in Soraku-gun, Kyoto Prefecture, CEO: SAWAMURA Kenichi, hereinafter "eSep"), which develops, manufactures and sells ceramic functional separation membranes*1. This is the 8th company that Mitsui Kinzoku has invested in through its corporate venture capital (hereinafter "CVC") program.

Centered on its purpose, "We promote the well-being of the world through a spirit of exploration and diverse technologies." Mitsui Kinzoku is working to create new businesses that contribute to the establishment of a sustainable society by fusing the external powers (customers, partner companies, universities, etc.) with the company's own strengths (core technologies/know-how/sales channels), and it is investing in promising international and domestic venture companies that can create business synergy with Mitsui Kinzoku through CVC.

eSep, the investee company, develops ceramic functional separation membranes and manufactures "separation membranes that provide easy, ecological and highly efficient separation." Moreover, eSep aims to manufacture and commercialize fuel prepared synthetically from CO₂ using a membrane reactor*2 that combines its proprietary technologies, namely the separation membranes and catalytic agents.

By investing in eSep to create synergy between eSep's separation membranes and Mitsui Kinzoku's inorganic materials technology, which is its strength, Mitsui Kinzoku will pursue business opportunities in environmental energy fields, such as the development of membrane reactors for manufacturing e-fuels*3 which contribute to the establishment of a carbon neutral society.

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Glossary

*1 Ceramic functional separation membrane

A separation membrane that has a membrane pore size which is precisely controlled in nanometers (1 billion times smaller than a meter) using cellular ceramics such as silica and zeolite and provides both separation on the molecular level, which is unparalleled by conventional separation membranes, and excellent durability

*2 Membrane reactor

A system expected to increase efficiency by causing chemical reactions while separating and removing substances that can inhibit the reaction using the membrane

*3 e-fuel

Carbon neutral fuel prepared synthetically from CO₂ and green hydrogen

Reference

Corporate Data

1. Company name:	eSep Inc.
2. Established:	October 1, 2013
3. Location:	7-5-1 Seikadai, Soraku-gun Seika-cho, Kyoto Keihanna Open Innovation Center @KYOTO
4. Representative:	CEO: SAWAMURA Kenichi
5. Capital:	213 million yen
6. Number of employees:	23 (As of April 1, 2022)
7. Business outline:	Development of inorganic membrane separation membrane technology and provision of related equipment, systems, etc.