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NEWS RELEASE

Mitsui Kinzoku Announces Results of the 69th JSAE Award
Two engineers receive the Outstanding Technical Paper Award

Mitsui Mining & Smelting Co., Ltd. (Head office: Shinagawa-ku, Tokyo; President and Representative Director: Keiji Nishida; hereinafter "Mitsui Kinzoku") is pleased to announce that the paper co-authored by its engineers and Honda R&D Co., Ltd.'s engineers was entered in the 69th JSAE Award by the Society of Automotive Engineers of Japan, Inc., and received the Outstanding Technical Paper Award.

The Catalysts Division develops and sells catalysts used to detoxify various exhaust gases for automobiles & motorcycles. Developed over many years, Diesel Particulate Filter (DPF) catalysts are being used in highly efficient diesel cars, where they make a significant contribution to low fuel consumption and emissions, earning high marks in terms of the environment. These factors led to receiving the Outstanding Technical Paper Award.*

The awards were established in 1951 with the goal of "encouraging the development engineering and automotive technology." Since their inception, the awards have attracted attention as a representative mark of the automotive technology field and of the JSAE, with the winners taking on high regard for their achievements.*

Under its slogan of Material Intelligence, Mitsui Kinzoku will devote itself to product development, concentrating on resources and the environment, and will continue to ensure stable quality and sufficient supply for its customers by utilizing catalyst activity mechanism analysis, catalytic particle control technologies, slurry technologies and precious metal loading technologies.

[Inquiries]

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(Reference)

[Awarded theme]

Development of highly efficient diesel particulate filter regeneration catalysts

[Award winners]

Takeshi Mori	Honda R&D Co.,Ltd.
Masafumi Sakota	Honda R&D Co.,Ltd.
Koji Nemoto	Honda R&D Co.,Ltd.
Takahiro Kogawa	MITSUI MINING & SMELTING CO.,LTD.
Yoshinobu Kakizaki	MITSUI MINING & SMELTING CO.,LTD.

[Award reason]

Particulate matter (PM) emitted from diesel engines is collected by diesel particulate filters (DPFs). The filters that have collected PM are regenerated by a temperature increase, but the associated deterioration of fuel consumption and increase in exhaust gas emissions have become an issue.

To respond to this, the winning paper proposed a catalyst technology that enables rapid DPF regeneration. The engineers created a concept to enhance combustion of PM by observing its shape and structure with a high-resolution electron microscope, making the catalyst shape and coating suitable for the shape and structure from the distribution of macro, meso and nano to increase contact performance of PM and the catalyst. Creating this catalyst and demonstrating it with actual vehicles achieved a dramatic enhancement of regeneration performance. This technology was adopted by highly efficient diesel cars, significantly contributing to low fuel consumption and emissions, and was highly rated in terms of the environment.*

* Cited or partly cited from the website of the Society of Automotive Engineers of Japan, Inc